Queensland Competition Authority

Rural irrigation price review 2025–29: Sunwater

Final report

January 2025

Contents

Executive summary

We were directed by the former 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 report explains how we reached our recommendations on Sunwater's irrigation pricing practices.[1] We appreciate the valuable contribution of stakeholders throughout our review. In preparing this final report and making our recommendations, we have considered all comments and feedback stakeholders provided at workshops and in submissions.

Sunwater's customer engagement has improved

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 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 position is to reduce Sunwater's proposed costs

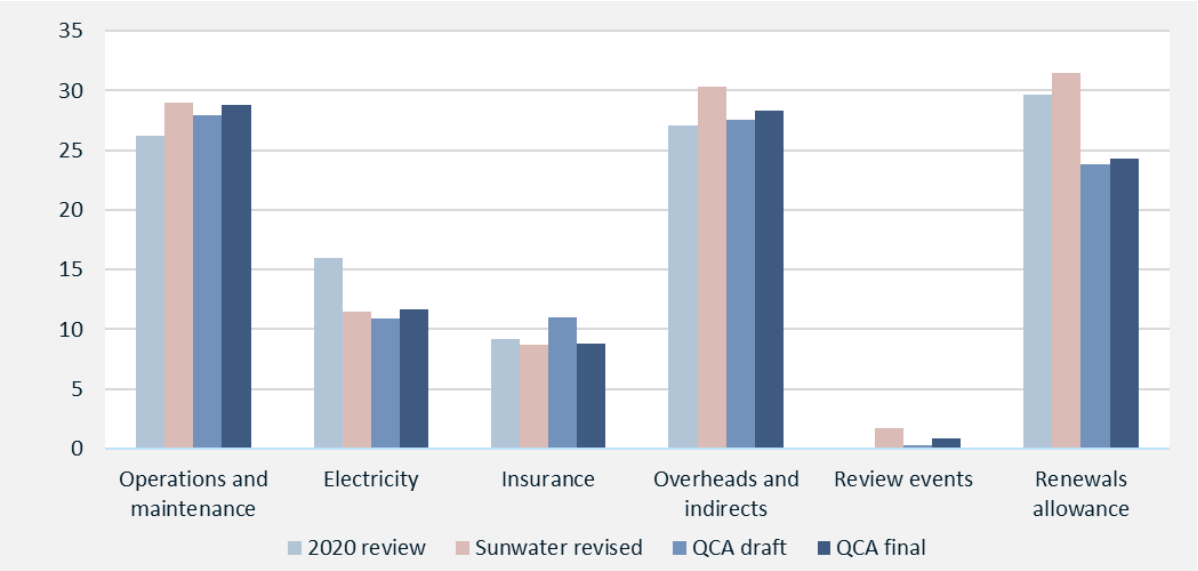
Our position is that total allowable costs[2] for Sunwater over the price path period should be set at $424.9 million, which is $40.8 million (or 8.8%) lower than Sunwater's total revised (annuity based) allowable costs.[3] This reflects our position on key cost drivers:

- an operating expenditure (opex) allowance over the price path period of $331.3 million, which is $11.6 million (or 3.4%) lower than Sunwater's revised opex
- a renewals allowance over the price path period of $101.2 million, which is $29.2 million (or 22.4%) lower than Sunwater's revised allowance, reflecting:
  - actual renewals expenditure over the period 2019–20 to 2024–25 of $155.5 million, which is $7.0 million (or 4.3%) lower than Sunwater's revised expenditure
  - forecast renewals expenditure over the price path period of $121.9 million, which is $27.8 million (or 18.6%) lower than Sunwater's revised expenditure
  - forecast renewals expenditure over the planning period from 2029–30 to 2057–58 of $831.1 million, which is $211.5 million (or 20.3%) lower than Sunwater's proposal.

1 A separate 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 This includes updates provided by Sunwater for insurance, electricity and review event adjustments, as well as actual 2023–24 renewals expenditure, a revised proposal for its customer and stakeholder project (CASPr) and an addendum for dam safety management costs, since its November 2023 proposal.

Figure 1 compares our position on key cost categories with Sunwater's revised costs under an annuity approach, our draft position and the 2020 review allowance. Our position is largely unchanged from our draft report, with the key changes being due to updated estimates provided by Sunwater for electricity and insurance.

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



Notes: 1. The 2020 review allowance has been adjusted for the difference between forecast and actual inflation. 2. 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 significant potential for opex efficiencies over the price path period and applied an ongoing efficiency target of 0.2% of opex, which is lower than Sunwater's proposed 0.5%, but at a level we consider achievable given the other efficiency savings we have applied.

Our review of renewals expenditure found that there is scope for Sunwater to make significant improvements in its long-term renewals planning. We found that Sunwater generally delivers renewals projects prudently and efficiently once properly scoped, but there is room for efficiencies from better project scoping and costing. That is because of inadequacies in asset planning and management, such as a lack of understanding of the condition of assets, also raised in the 2020 review.

We have set out a range of measures for Sunwater to implement to achieve efficiencies in the renewals program. We have not applied an efficiency target to the forecast renewals program, but we consider that Sunwater should develop an efficiency plan for the renewals program during the price path period, in consultation with customers, including an ongoing process to identify and implement spend-to-save initiatives.

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

We support an appropriately designed RAB approach to recover renewals expenditure, but further work is needed

We support an appropriately designed regulatory asset base (RAB) approach, but we are not satisfied that Sunwater's approach is sufficiently robust and well developed to support moving to a RAB approach at this time.

Sunwater's revised proposal is an improvement on the approach it initially proposed, but there are outstanding issues to be addressed. For the RAB approach to be acceptable at the next price review, Sunwater must demonstrate that it has taken appropriate actions to address the issues we have raised.

We have applied the renewals annuity approach to determine the renewals allowance for this review, which is consistent with our approach in the draft report.

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

Our approach to converting total allowable costs to 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 tariff group) – we set the same price target for this tariff group as for other customers in this distribution system, as we found no justification for a differentiated price
- Eton water supply scheme (risk priority A tariff group) – we accept Sunwater's proposal for a fully volumetric tariff for this new tariff group.

We reached our price recommendations by applying the pricing principles in the referral.[4] For each tariff group, we compared our price recommendations with the price target over the price path period. Overall, 13 of the 43 tariff groups will have prices at the price target in the first year of the price path period, with a further 14 tariff groups reaching the price target by the end of the price path period.

The review event mechanism should be maintained

We recommend maintaining the review event mechanism to address uncontrollable opex risk and maintaining the current list of review events, but clarifying the definitions and the criteria for assessing review event applications. In its response to the draft report, Sunwater advised that it was no longer proposing to introduce an ECPT mechanism.

Next step

We provided our final report to the government on 31 January 2025. The government will consider our recommendations before determining irrigation prices to apply from 1 July 2025.

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

Recommendations and findings

Our recommendations for this review are provided in Box 1, followed by our findings on the improvements we consider Sunwater should make before the next review in Box 2.

Box 1: Recommendations

Recommendation 1: Irrigation prices

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.

Recommendation 2: Miscellaneous prices

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, the 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 from the scheme by another customer.

Recommendation 3: Managing cost risk

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. An increase in total costs is sufficiently material if the additional costs 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 expenditure and non-renewals capex.

Box 2: Findings on the improvements Sunwater should make before the next review

Finding 1: Review the existing cost allocation methodology

Sunwater should review its cost allocation methodology for the purposes of allocating costs to regulated schemes.

Finding 2: Develop an efficiency plan for the renewals program

Sunwater should develop an efficiency plan for the renewals program during the price path period, in consultation with customers. The plan should:

- set out a structured process to implement initiatives to improve asset planning and management and enhance evidence-based decision-making
- include an ongoing process to identify and implement spend-to-save investment initiatives and efficient working practice changes
- identify savings to be realised from this process.

Finding 3: Improve information reporting to strengthen the effectiveness of ex post reviews

For future reviews, to support the ex post review of renewals expenditure and non-renewals capex, Sunwater should:

- review its coding of renewals expenditure and non-renewals 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 allowed expenditure to stakeholders and in its proposal
- clearly identify any projects that were deferred or brought forward during the price path period.

Finding 4: Address outstanding issues with the RAB approach

We support an appropriately designed RAB approach, but we are not satisfied that Sunwater's approach is sufficiently robust and well developed to support moving to a RAB approach at this time.

For the RAB approach to be acceptable at the next price review, Sunwater must demonstrate that it has:

- conducted an independent comprehensive review of renewals expenditure to appropriately classify expenditure as opex or capex
- developed an implementation plan to put a process in place to systematically classify expenditure as part of business-as-usual processes
- comprehensively assessed its approach to managing transitional impacts, in consultation with customers.

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 was conducted under a referral notice (referral) issued by the former treasurer in March 2023.[5] We were directed to recommend irrigation prices for the period 1 July 2025 to 30 June 2029 (the price path period).

This report explains how we reached our 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.[6] Sunwater's water storage and distribution infrastructure includes dams, weirs and barrages, pumping stations, and more than 2,500 kilometres of pipelines and water channels.

Sunwater supplies more than 5,000 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 2023–24, 75% came from industrial customers (such as mines and power stations), 19% from irrigation customers and 6% from urban customers (mainly councils).[7]

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.[8]

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 pricing principles in the referral.[9] 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 exclude allowances for capital expenditure (capex) incurred prior to 1 July 2000 to build the existing assets and capex on dam safety upgrades.

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5 The referral (available on our website) was issued under section 23 of the *Queensland Competition Authority Act 1997*.
6 Seqwater provides bulk water and irrigation services in south-east Queensland.
7 Sunwater, sub. 9, p. 8; Sunwater, *Annual report 2023–24*, September 2024, p. 59.
8 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.
9 There are a few exceptions to the requirement to apply the transitional element of the pricing principles (referral, para. B(1.1)(a)).

The government subsidises customers 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, some customers may receive an additional subsidy.

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.[10]

1.3 Our approach to the review

This is our third irrigation pricing review. The first review was completed in 2012 (for Sunwater) and 2013 (for Seqwater) and the second (combined) review was completed in January 2020.[11]

We advised Sunwater that we expected its 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).

In this report, we provide an overview of the steps we followed to reach our price recommendations (Chapter 3), followed by the detailed step-by-step assessment (Chapters 4 to 10). We have considered the impacts of our price recommendations on irrigation customers and estimated the revenue shortfall for each tariff group with prices below the price target (Chapter 11). We also assessed and made recommendations about 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).[12] These matters 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 G.

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 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. However, our ability to place weight on economic efficiency or the other matters is constrained by the terms of the referral.

1.4 Consultation process

Our review formally began when the businesses submitted their proposals at the end of November 2023. We consulted with stakeholders in two stages – after the businesses submitted their

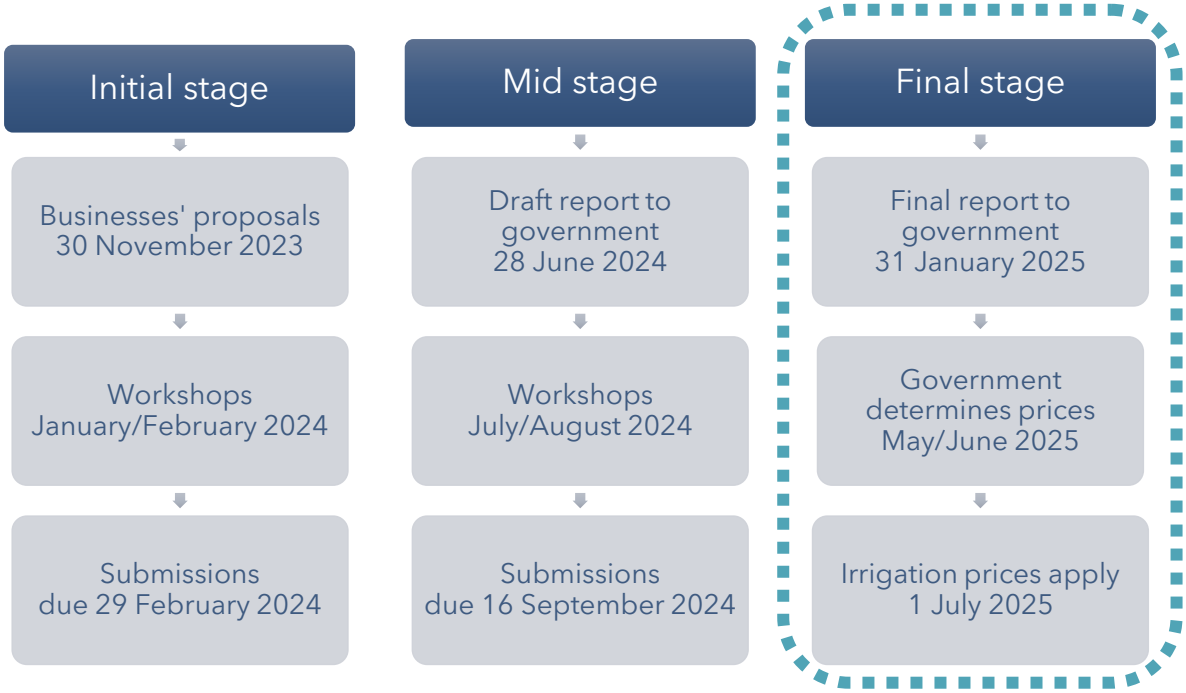
[10] Referral, para. B(1.1)(a)–(b).
[11] See Appendix A for a summary of our price recommendations from the 2020 review and the government's decision about prices to apply in the current price path period – 1 July 2020 to 30 June 2025.
[12] In accordance with sections 24(1)(b) and 26 of the QCA Act.

proposals and after we released our draft reports. At each stage, we held stakeholder workshops and invited written submissions. Details of the two rounds of workshops we conducted and a list of the submissions we received are in Appendix B.

We appreciate the valuable contribution that stakeholders have made to our review. In preparing this final report and making our recommendations, we have considered all comments and feedback provided at workshops and in submissions.

Our review concludes with the delivery of our final report and recommendations to the government on 31 January 2025.

Figure 2: Review timetable



2 Customer engagement

The pricing proposal guidelines we published in March 2023 outlined our expectations for the water businesses in terms of engaging with their customers and other stakeholders during the development of proposals. We have assessed Sunwater's customer engagement based on the engagement principles in these guidelines.[13]

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 referral was issued 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, further improvements are needed. Our main areas of concern relate to the information Sunwater provided to customers when engaging on cost inputs in the development of its proposal, and to some aspects of Sunwater's approach to seeking and addressing feedback on technical issues.

Sunwater said that our draft report did not acknowledge the extensive engagement that it undertook with its entire irrigation customer base on issues such as the RAB proposal and the electricity cost pass-through (ECPT) mechanism, stating that we should recognise its effort to obtain broad-based customer feedback to inform its proposal. It said we should give this feedback greater consideration in our final report.[14] While we recognise Sunwater's efforts to engage with its entire irrigation customer base, we remain concerned that its proposal lacked robust evidence of a comprehensive understanding of customer views. We have emphasised the importance of diverse engagement methods and clear integration of customer feedback into proposals.

2.1 Assessment of Sunwater's engagement

2.1.1 Structure engagement to promote an understanding of customer needs

Overall, our 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.[15] Sunwater implemented

[13] QCA, *Rural irrigation price review 2025–29*, guidelines for pricing proposals, March 2023, p. 11.
[14] Sunwater, sub. 85, pp. 74, 76–78, 81.
[15] See QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 171.

a range of measures including introducing customer advisory committees (CACs) in seven regulated schemes and implementing working groups to address specific issues.

Prior to the 2020 review, the key engagement channel was irrigator advisory committees (IACs) in each regulated scheme,[16] 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 some of the smaller schemes it appears that regular engagement with an IAC has diminished.[17] It is not clear how Sunwater will maintain its understanding of customer needs over the course of the price path period in schemes without a CAC or IAC.

Sunwater's engagement on its proposal for this review has built on its established engagement channels, using monthly Consultative Committee meetings; a three-stage program of scheme forums; a dedicated project web page; scheme-level and proposal-specific fact sheets; and an online voting platform. Sunwater said that it provided multiple opportunities and channels for irrigation customers to engage with Sunwater as the proposal was developed.[18]

We consider that Sunwater effectively used its Consultative Committee to facilitate its interaction with, and engagement of, the broader customer base, including by providing feedback on the three-stage engagement process and by testing and refining draft proposals. Stakeholder representative groups involved in Sunwater's Consultative Committee were also generally complimentary of Sunwater for its improved engagement process compared to the 2020 review.[19]

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 an online invoice calculator that compares customer's prices under these approaches.[20]

We have concerns, however, with Sunwater's approach to using a voting platform to justify customer support for moving to a RAB approach. We note that the focus of the informational video accompanying the survey was on the online invoice calculator, which only showed bill impacts over the price path period. It is unlikely that this provided customers with a sufficient depth of understanding of outcomes such as changes in asset management, and transitional options for addressing potential price shocks. We also note that several stakeholders said that they lacked adequate information to enable a meaningful contribution on the RAB proposal.[21] In addition, while surveys can provide some useful information, they only capture surface-level preferences without demonstrating the level of understanding and reasoning of customer choices.

In response to our draft report, Sunwater said we had placed too much weight on a handful of submissions in assessing that there was no clear support for adopting a RAB approach and that we had not adequately considered its extensive engagement including survey response rates higher than for other regulated businesses.[22] We note that opposition to adopting a RAB approach in this

16 At the time of the 2020 review, IACs existed in 18 of the 22 regulated schemes.
17 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).
18 Sunwater, sub. 11, p. 9.
19 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.
20 All presentations, fact sheets and the irrigation customer invoice calculator were available on a project-specific page on Sunwater's website (*Irrigation Price Path*, accessed 15 April 2024).
21 BRIG, sub. 41, p. 3 and sub. 66, p. 3; BRIA Irrigators, sub. 42, p. 11; Central Highlands Cotton Growers and Irrigators Association (CHCGIA), sub. 47, p. 2 and sub. 71, p. 1; Pioneer Valley Water Co-operative (PVWC), sub. 80, p. 2; QFF, sub. 83, p. 4; Wilmar Sugar Australia, sub. 62, p. 2.
22 Sunwater, sub. 85, pp. 76–77.

review included key representative groups,[23] whose support is generally critical for demonstrating customer support on complex, technical matters. In addition, while a survey response rate may indicate the extent of customer engagement, it does not provide clear evidence of the depth of customer understanding. Many of the other surveys that Sunwater used as examples to demonstrate much lower response rates[24] were willingness-to-pay studies, which generally seek to explore customer priorities in much more depth, even if they involve lower response rates. For example, customers might be given a choice between the current level of service and specific alternatives, to enable customers' willingness to pay for different attributes of the service to be explored. Further, responses may be collected through a variety of channels to reduce response bias.

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.[25] In addition, Sunwater said that it proposed three changes to the regulatory framework that allowed for significant customer influence – changes to its performance reporting, changes to the way renewals expenditure was recovered, and an ECPT mechanism.

We have some concerns regarding Sunwater's approach to engaging on cost inputs for its proposal. In the context of irrigation pricing, we consider it important to provide customers with sufficient detail on actual and proposed costs to allow for adequate scrutiny of these costs, which could help to 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 allowed 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.[26] In relation to opex, for example, Sunwater simply noted general shifts in costs related to selected cost categories, but did not include a breakdown of the major components of scheme-level opex or provide any comparison of changes over time against allowed opex from the 2020 review, which would have allowed stakeholders to scrutinise cost changes more effectively. 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.[27] However, there was limited time for feedback in this final stage for Sunwater to reasonably address any feedback.[28]

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

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23 For example, BRIG, sub. 41, pp. 2–3 and sub. 66, p. 2; BRIA Irrigators, sub. 42, pp. 11–12 and sub. 67, pp. 2–3; Canegrowers, sub. 43, pp. 2–3 and sub. 68, p. 2; Cotton Australia, sub. 72, pp. 4–5; QFF, sub. 59, p. 5 and sub. 83, p. 4.

24 Sunwater, sub. 85, p. 77.

25 Sunwater, sub. 11, p. 10.

26 Central Downs Irrigators, sub. 46, p. 2; CHCGIA, 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.

27 Sunwater, sub. 11, p. 23.

28 Sunwater's third stage of engagement commenced with its first workshop on 20 October 2023 and continued until the final workshop on 24 November 2023 (Burdekin-Haughton WSS), before Sunwater lodged its proposal on 30 November 2023.

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.

Sunwater said that like its engagement on technical matters such as asset management, maintenance and appropriate engineering solutions, there is value in engaging customers on matters such as its RAB proposal.[29] We agree that it is important to engage on the RAB proposal and said as much in our draft report. However, we consider that such engagement should primarily focus on outcomes that customers care about, such as potential improvements in asset planning and management that would result from proposed changes and how the transition to the RAB approach could be designed to minimise any potential price shocks.

In addition, Sunwater's presentations over its three-stage engagement process did not appear to cover topics such as distribution losses and miscellaneous prices (e.g. termination fees).

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 proposal after the referral was issued 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 allowed costs. While these reports show a greater detail than the cost inputs presented as part of Sunwater's engagement for this proposal, it is not clear how these reports are integrated into Sunwater's ongoing engagement.

For example, it is unclear whether customer feedback on cost drivers in the annual service and performance plans during the price path period informs the development and testing of Sunwater's proposal. We suggest that Sunwater establish a clearer link between its annual service and performance plans and the proposal to ensure that customer insights are consistently factored into price-setting decisions. We note that in other Australian jurisdictions, such as Victoria, businesses report annually on the delivery of outcomes set out in their price submissions, including performance against cost targets.[30]

We recognise that while the referral – and therefore, information on government policy positions and timing for this price review – was issued earlier than was the case for the 2020 review, the remaining time of less than nine months for customer engagement on the proposal was still less than is usual practice in other jurisdictions.[31] 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.[32]

None of the organisations represented on the Consultative Committee endorsed the RAB or ECPT mechanism proposals.[33] Several issues were raised by stakeholders on this committee, which Sunwater could have addressed in a more fulsome way if there was sufficient time. We also note that

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29 Sunwater, sub. 85, p. 76.
30 See, for example, ESC, *Outcomes Report 2023–24, Performance of Victoria's water businesses against their own commitments to customers*, October 2024.
31 The general practice in other jurisdictions is to commence engagement on the development of proposals approximately a year before the submission.
32 Sunwater, response to RFI 130.
33 Canegrowers, sub. 43, pp. 2–3; QFF, sub. 59, p. 5; Cotton Australia, sub. 48, p. 4.

stakeholders expressed concern about the limited timeframe for customer consultation and the extent of customer engagement regarding the proposed transition to a RAB approach.[34]

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 proposal.

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

- developed its 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.[35]

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.[36] As stated in our guidelines for pricing proposals, we expect supporting information for a proposal to outline the issues raised by customers and the business's response to these issues.[37]

We consider that transparent engagement practices are critical to building trust and demonstrating responsiveness to customer needs. When Sunwater receives feedback that cannot be directly incorporated into proposals, we expect it to provide clear explanations of why this was the case and to outline any alternative actions taken to address the underlying issues. We consider that not clearly explaining how feedback is addressed can reduce customer confidence in the regulatory process.

Sunwater said that customer concerns on the RAB approach related to either feedback received at our workshops or part of stakeholder submissions,[38] but this demonstrates the impacts of a much shorter timeframe for consultation on Sunwater's proposal than standard practice.

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 proposal.

As explained in section 2.1.2, we have some concerns regarding Sunwater's approach to engaging on cost inputs for its 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.

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34 BRIA Irrigators, sub. 42, p. 12; BRIG, sub. 66, p. 2; CHCGIA, sub. 47, p. 2; EICL, sub. 74, p. 2.
35 Sunwater, sub. 11, pp. 9, 22.
36 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.
37 QCA, *Rural irrigation price review 2025–29*, guidelines for pricing proposals, March 2023, p. 12.
38 Sunwater, sub. 85, p. 79.

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 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.

3 Approach to recommending prices

We are required to recommend prices in accordance with the requirements in the referral.[39] 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 pricing principles in the referral.[40]

Our price recommendations were informed by our assessment of Sunwater's proposal and stakeholder submissions.

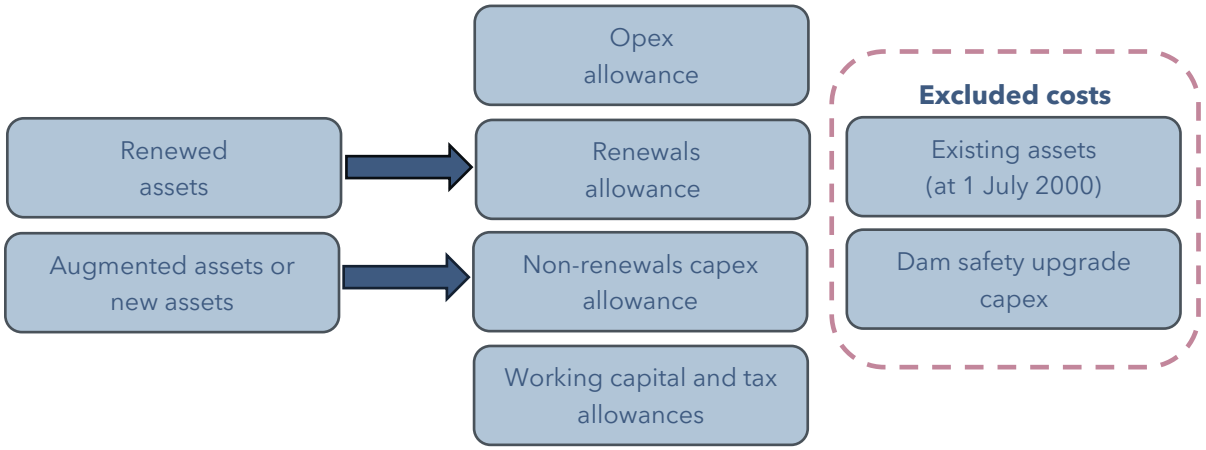
We followed these steps to calculate prices:

1. Determine the prudency and efficiency of costs – to ensure that prices reflect the efficient costs of meeting regulatory obligations[41] and service levels agreed with customers.[42]
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 pricing principles.[43]

3.1 Determining the prudency and efficiency of costs

We assessed the prudency and efficiency of the costs of supplying customers (irrigation, urban and industrial) in the regulated schemes (Chapters 4 to 7).[44] 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 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 the augmentation of existing assets or new assets, so our review has not required an assessment of the non-renewals capex allowance component.

39 QCA Act, s. 24(1)(d).
40 There are a few exceptions to the requirement to apply the transitional element of the pricing principles (referral, para. B(1.1)(a)).
41 Including regulatory and legislative obligations, such as those relating to water planning and dam safety, imposed by the government and other regulatory bodies.
42 Including customer service standards.
43 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.
44 Excluding costs associated with water services provided by Burnett Water Pty Ltd in relation to Paradise Dam and Kirar Weir.

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[45]
- 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 – an allowance for tax as part of total costs, which is consistent with our post-tax nominal approach to the weighted average cost of capital (WACC).[46]

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

3.2 Setting a price target for each tariff group

The next step is to convert Sunwater's total allowable costs to a price target for each tariff group (Chapters 8 and 9).

To derive allowable costs for each bulk water supply scheme and distribution system, we first made adjustments in certain schemes to ensure that costs were allocated to the appropriate beneficiaries. We then converted 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) or making other scheme-specific adjustments
- converting allocated costs into a unit cost for each tariff component, using forecast volumes.

In accordance with the referral, we then determined 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.[47]

3.3 Transitioning irrigation prices to the price target

The last step to reach our price recommendations was to apply the pricing principles to establish the transitional path to the price target for each tariff group (Chapter 10).[48] If customers reach the price target during the price path period, their prices reflect the price target for the rest of the period.[49]

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45 We also make an adjustment to the opex allowance for the cost of review events that occurred in the current price path period.

46 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).

47 Referral, sch. 2, para. A.

48 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)).

49 Referral, sch. 2, para. A.

4 Operating expenditure

This chapter sets out our position on the prudent and efficient level of Sunwater's operating expenditure (opex) for regulated schemes over the price path period. We have assessed the prudent and efficient level of all opex for these regulated schemes, including the costs of supplying irrigation and non-irrigation customers.

4.1 Overview of position

Overall, we consider the prudent and efficient level of opex over the price path period should be set at $331.3 million (Table 1).

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

	QCA position						
	2025-26	2026-27	2027-28	2028-29	Total	Sunwater revised[a]	Difference
Baseline opex excl. electricity	65.8	67.8	69.8	71.6	**275.1**	283.1	**(8.1)**
Electricity	11.6	12.0	12.5	13.0	**49.1**	49.1	**-**
Step changes[b]	1.5	1.6	1.6	1.7	**6.3**	10.4	**(4.0)**
Continuing efficiency	(0.4)	(0.6)	(0.8)	(0.9)	**(2.7)**	(6.9)	**4.2**
Total forecast	**78.5**	**80.8**	**83.2**	**85.3**	**327.8**	**335.7**	**(7.9)**
Review event adjustments	0.8	0.9	0.9	0.9	**3.5**	7.2	**(3.7)**
Total allowance	**79.3**	**81.7**	**84.1**	**86.2**	**331.3**	**342.9**	**(11.6)**

a Incorporates updated cost information provided by Sunwater for insurance, electricity, ongoing costs for its customer and stakeholder project (CASPr) and review event adjustments. b Includes QCA fees.
Notes: 1. Figures in this table include opex allocated to irrigation and non-irrigation customers in regulated schemes.
2. Totals may not add due to rounding.
Source: Sunwater, sub. 9; Sunwater, sub. 85; Sunwater, response to RFIs 22, 23 and 24 (post-draft); QCA analysis.

We used the base-step-trend approach as the basis for our assessment and found:

- the prudent and efficient level of baseline opex (exclusive of electricity costs) should be set at $275.1 million, and the prudent and efficient level of electricity costs should be set at $49.1 million (section 4.3), with corresponding step changes of $6.3 million over the price path period (section 4.4)
- the ongoing opex efficiency target should be set at 0.2% per annum (section 4.5)
- review event adjustments are appropriate for material changes in insurance and electricity costs over the current price path period (section 4.6).

We consider that our position on total opex reflects a reasonable overall allowance for Sunwater to manage its assets, prioritise expenditures and deliver bulk and distribution services over the price path period. Our position on 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, noting that we will separately assess changes in cost arising from the review event process.

In response to our draft report, Sunwater said that it has concerns with our approach to determining baseline opex, stating that:

- we have applied a bottom-up approach that selectively targets opex categories with overspends, contrary to our guidance that we would generally set the opex allowance at a broad level to allow the business the flexibility to reprioritise expenditure[50]
- our use of QCA regulatory allowances as a reference point in setting the baseline is inappropriate as these represent a point-in-time estimate[51]
- we have not allowed for additional spend to deliver necessary or desirable improvements[52]
- many of our adjustments were based on opinion and correlation rather than causation, which contradicts our guidance that we would not generally adjust opex based on differences of opinion.[53]

Sunwater said that while a revealed cost framework does not mean actual expenditure is automatically prudent and efficient, the regulatory framework is designed to disincentivise overspending and there are protections in place to allow for the baseline to reset in the next period, so the business is not disadvantaged longer than the price path period for necessary overspends.[54] Sunwater said it has an incentive to minimise overspends and seek savings, as it cannot recover any overspends through irrigation prices during the price path period and that it achieved savings in a number of cost categories, including electricity costs, during the last price path period.[55]

We consider that our assessment approach is consistent with contemporary regulatory practice. Specifically, as Sunwater's incentive to seek ongoing efficiencies could be muted if higher outturn opex was automatically used to reset baseline opex, our approach seeks to understand the drivers of any overspend in controllable opex relative to the regulatory allowance. We note that this is consistent with the approach set out in our guideline for pricing proposals.[56]

In reviewing the cost drivers of the overspend, we focused on opex exclusive of electricity costs because electricity costs are material, exhibit significant levels of variability and are subject to the review event mechanism.[57]

Further, in using the regulatory allowance as a point of comparison, we have sought to account for changes in the operating environment that may require a prudent and efficient increase in overall expenditure. For example, we have allowed for increases to accommodate improvements in cyber security, stakeholder relations, general safety and dam safety and enterprise portfolio management.

We have assessed the justifications provided by Sunwater and formed a view as to the robustness of the evidence provided, when considering the cost drivers underpinning the overspend. Given the informational advantage that Sunwater enjoys, we consider it appropriate to require Sunwater to demonstrate the prudency and efficiency of overspends in the overall allowance. We note that where Sunwater has provided robust justification, we have accepted the proposed increase.

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50 Sunwater, sub. 85, p. 27.
51 Sunwater, sub. 85, pp. 7, 26, 28–29.
52 Sunwater, sub. 85, pp. 25, 29.
53 Sunwater, sub. 85, pp. 7, 29–32.
54 Sunwater, sub. 85, p. 27.
55 Sunwater, sub. 85, p. 27.
56 QCA, *Rural irrigation price review 2025–29*, guidelines for pricing proposals, March 2023, pp. 14–15.
57 In this respect, the key driver of the lower electricity costs in the current price path period was the availability of the whole-of-government market contract with the cost savings repaid to customers through the electricity cost pass-through trial rather than being available to be redirected to other initiatives.

4.2 Our assessment approach

In assessing the prudency and efficiency of proposed opex over the price path period, we focused on areas that are material, specifically examining the proposed base year, step changes and escalation.

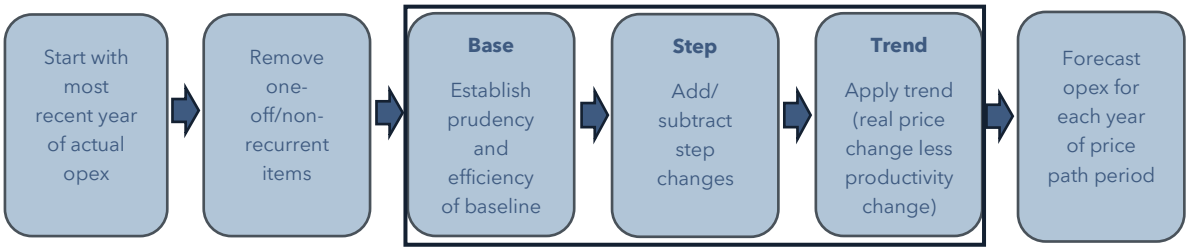
Base-step-trend approach

Our approach to assessing Sunwater's proposed opex 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 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 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 as a starting point 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 baseline with allowed expenditure from the 2020 review. Given that Sunwater's baseline opex (excluding electricity) is higher than the 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 including the drivers for significant scheme level changes in the opex allowance since the 2020 review.

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 year-to-year variability in electricity costs, with a key driver being the volume of water pumped.

Step changes

We consider that proposed step changes should be material enough so 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 a new (or changed) binding statutory or regulatory obligation 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 to achieve 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[58]
- 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.

[58] 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 opex 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.

4.3 Baseline opex

We have set Sunwater's baseline opex at $71.0 million (Table 2). This reflects adjustments to Sunwater's 2022–23 actuals to remove non-recurrent costs and include recurrent costs not incurred in the 2022–23 baseline year (section 4.3.1) and to exclude increases since our 2020 review that have not been justified by Sunwater (section 4.3.2).

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

	2022–23 actuals	Non-recurrent adjustments	Efficiency adjustments	QCA position
Labour	12.7	(0.6)	(0.2)	11.9
Contractors	5.4	(0.9)	–	4.4
Materials	2.6	0.1	–	2.7
Other	8.2	(1.0)	–	7.2
Insurance	9.0	–	–	9.0
Total direct	**37.9**	**(2.5)**	**(0.2)**	**35.2**
Total overhead and indirect costs	**26.5**	**-**	**(1.3)**	**25.2**
Baseline opex excl. electricity	**64.4**	**(2.5)**	**(1.5)**	**60.5**
Electricity	9.3	1.2	–	10.5
Total baseline opex	**73.7**	**(1.3)**	**(1.5)**	**71.0**

Notes: 1. Figures in this table include opex allocated to irrigation and non-irrigation customers in regulated schemes. 2. Non-recurrent adjustments reflect our adjustments to Sunwater's 2022–23 actuals to remove non-recurrent costs and include recurrent costs not incurred in the 2022–23 baseline year. 3. Totals may not add due to rounding.
Source: Sunwater, sub. 9; QCA analysis.

4.3.1 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.[59] 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 period (but not incurred in the base year). Our 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 the baseline year ($ million, 2022–23 dollars)

	Sunwater proposal	QCA position	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)	(0.9)	
Materials	0.1	0.1	
Other operations and maintenance	(1.0)	(1.0)	
Insurance	–	–	There were no non-recurrent costs in the 2022–23 base year, and no new recurrent costs are expected beyond the base year.
Overhead and indirect costs	–	–	–
Total adjustments	**(2.1)**	**(2.5)**	
Adjusted baseline	**62.3**	**61.9**	

Note: Totals may not add due to rounding.
Source: Sunwater, sub. 9 and sub. 85; 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 response to our draft report, Sunwater said that its existing billing system, Orion, was fully depreciated by 2021–22, with no further depreciation applied since.[60] Rather than adjusting the baseline to reflect the net impact of the retirement of Orion and introduction of the Customer and Stakeholder Project (CASPr), we have treated the CASPr incremental cost as a step change (see section 4.4.1).

[59] Sunwater, sub. 9, p. 60.
[60] Sunwater, sub. 85, p. 55.

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

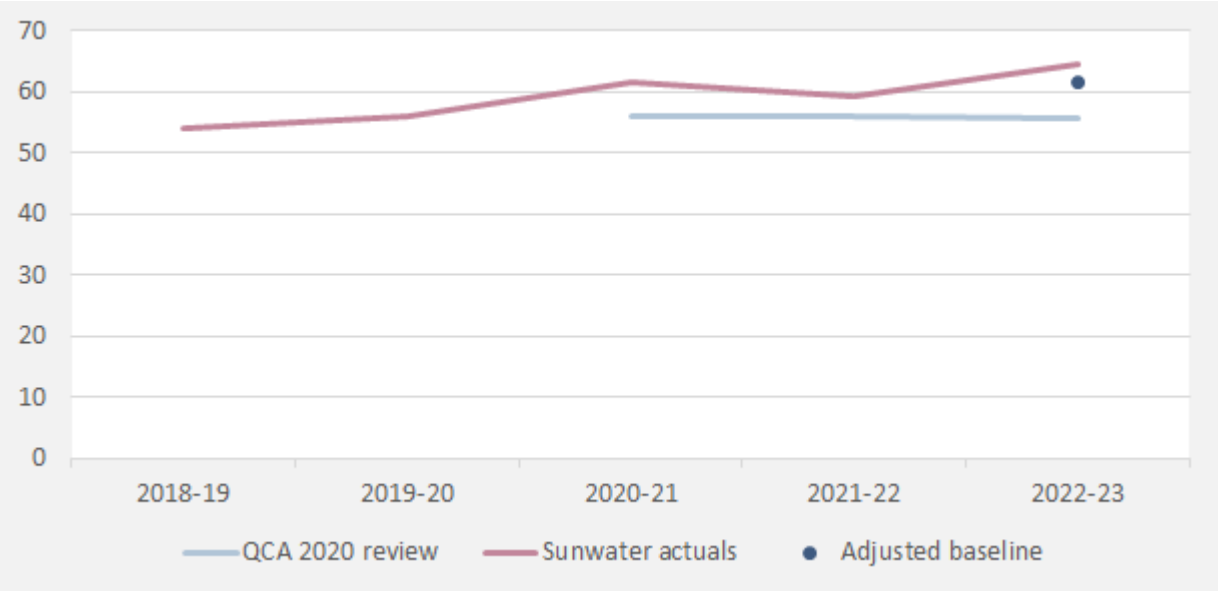
Category	Sunwater proposal	Nature of adjustment	QCA assessment	QCA position
Direct labour	(0.2)	Sunwater said that its adjustment comprises: • reductions where 2022–23 costs exceeded historical averages, derived as the difference from the 5-year average • an uplift of 4.5% to the 5-year average, based on 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.	We have only applied the nominal 4.5% uplift to the 2022–23 base year as this is the only year impacted by the backdated EA increase. Sunwater said our multi-year averaging approach does not account for legitimate increases in its direct labour costs. However, we note that our only adjustment is to the nominal uplift, which we maintain should only apply to the 2022–23 base year.	(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 other 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.	Given that AtkinsRéalis's recommendation to apply this adjustment across all schemes results in an adjustment that is not materially different from Sunwater's adjustment, we have accepted Sunwater's adjustment on the basis that it is based on local operational expertise.	(0.9)
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 inflation-adjusted forecast in the 2020 review.	0.1
Other operations and maintenance	(1.0)	Sunwater adopted a 5-year real historical average for rental and hire equipment 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. It also removed legal fees related to a one-off settlement and made miscellaneous reductions amounting to $0.1 million.	Given that AtkinsRéalis's recommendation to apply the adjustment for rental and hire equipment across all schemes is not materially different from Sunwater's adjustment, we have accepted Sunwater's proposed adjustment. We have also accepted 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 and sub. 85, pp. 33–34; AtkinsRéalis, *Expenditure review for rural irrigation price review 2025–29*, Review of Sunwater's rural irrigation pricing proposal 2025–29, final report, June 2024, pp. 125–127 (AtkinsRéalis, Sunwater report, June 2024); Sunwater, response to RFIs 28 and 62; QCA analysis.

4.3.2 Prudency and efficiency of baseline opex (excluding electricity)

Given that the adjusted baseline opex (excluding electricity) is higher than the opex allowance from the 2020 review (Figure 5), we have assessed the reasons provided by Sunwater to understand the outcomes. We have focused on key cost drivers and considered whether cost increases were within Sunwater's control.

Figure 5: Total opex – actuals relative to QCA allowance ($ million, 2022–23 dollars)



Notes: 1. Opex is exclusive of electricity costs. 2. The adjusted baseline incorporates our adjustments to Sunwater's 2022–23 actuals for non-recurrent costs. 3. Opex from the 2020 review relates to allowed 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.

The opex allowance 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).[61]

Therefore, to understand the drivers of adjusted baseline opex being higher than the 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 $5.9 million higher than the allowance from the 2020 review. Table 5 shows the key cost categories driving this variance.

[61] 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**	**2.9**
– Direct labour	12.1	11.3	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	**26.5**	**24.3**	**2.2**
Total	**61.9**	**56.0**	**5.9**

Notes: 1. The adjusted baseline incorporates our adjustments to Sunwater's 2022–23 actuals to remove non-recurrent costs and include recurrent costs not incurred in the 2022–23 baseline year. 2. 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.[62] 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.[63] BRIG expressed support for our proposed adjustments to baseline opex in the draft report.[64]

Operations and maintenance

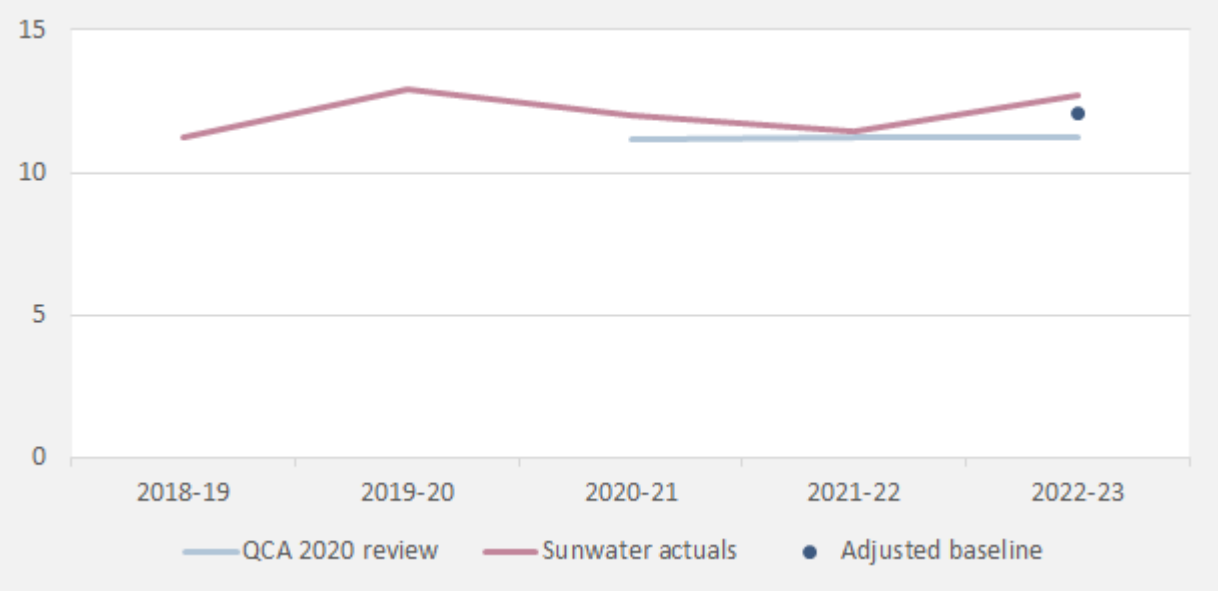
The key drivers for the adjusted baseline for operations being $2.9 million higher than the allowance in the 2020 review are direct labour ($0.9 million) and other direct opex ($1.8 million).

Direct labour costs

Sunwater's direct labour costs increased significantly in real terms in 2019–20 (up 15.0%) before dropping back to the allowed 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 the allowance in the 2020 review.

62 Cotton Australia, sub. 48, p. 2; Lower Burdekin Water, sub. 54, p. 6; Wilmar Sugar Australia, sub. 62, p.1.
63 CHCGIA, sub. 47, p. 1; Nogoa-Mackenzie IAC, sub. 57, p. 1; BRIA Irrigators, sub. 42, p. 11.
64 BRIG, sub. 66, p. 1.

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



Notes: 1. The adjusted baseline incorporates our adjustments to Sunwater's 2022–23 actuals for non-recurrent costs.
2. The costs from the 2020 review are the allowed level of direct labour costs 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).[65]

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 in FTEs 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.[66]

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 offsetting reductions in overtime accrual and the staff lost to attrition. However, taking AtkinsRéalis's advice into account, we accept

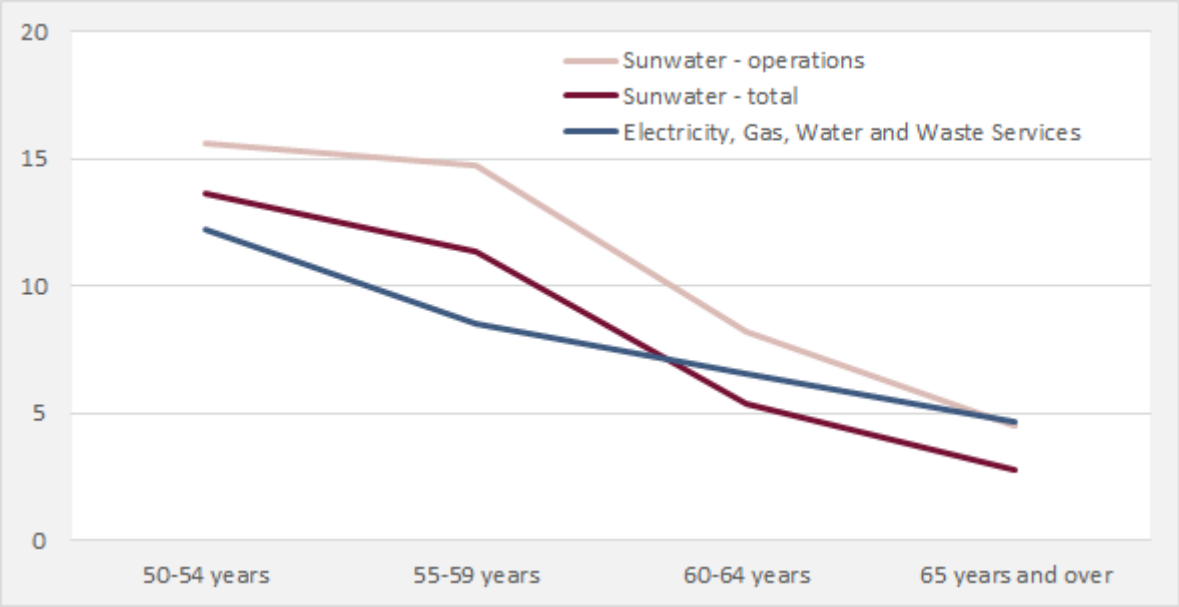
[65] Sunwater, sub. 9, p. 75.
[66] Sunwater, sub. 9, pp. 73–74.

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.[67]

In the draft report, we noted 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.[68] In response, Sunwater pointed to studies to the effect that the age distribution of the sector follows a normal distribution rather than an even distribution.[69] Sunwater said, noting this, there was clear evidence of a trend in workforce ageing that required action during the current price path period and that this justified an investment in graduates, cadets, and apprentices to ensure sufficient operational staff and knowledge transfer as older employees retire.

As noted by AtkinsRéalis, the analysis provided by Sunwater only offered a snapshot of the age profile of its workforce rather than a trend.[70] However, our assessment shows that while Sunwater's overall workforce age distribution is broadly consistent with the utilities sector, its operations team does present a greater risk, with a significantly higher proportion of employees aged over 50 (Figure 7).

Figure 7: Age profile of Sunwater's workforce (%)



Note: The figures presented reflect the percentage of the workforce in each age category.
Source: Australian Bureau of Statistics (ABS), *Labour Force, Australia, Detailed*, August 2024, 'EQ12 – Employed persons by Age and Industry division of main job', accessed 16 January 2025; Sunwater, supporting information accompanying sub. 9; QCA analysis.

We also note that Sunwater's strategic workforce plan outlines the significant proportion of the operations team expected to reach retirement age in the next five years and the challenges in recruiting for critical technical roles as key risks. To mitigate these risks, Sunwater has identified the need for proactive strategies, such as expanding entry-level talent and building a long-term talent pipeline to bridge the skills gap.[71]

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67 This is based on the regulated schemes' share of the real increase in labour directly charged from the safety cost centre. See AtkinsRéalis, Sunwater report, June 2024, p. 139.
68 AtkinsRéalis, Sunwater report, June 2024, pp. 138–139.
69 Sunwater, sub. 85, pp. 35–37.
70 AtkinsRéalis, *Rural irrigation price review 2025–29*, Sunwater supplementary report, January 2025, p. 15 (AtkinsRéalis, Sunwater supplementary report, January 2025).
71 Sunwater, *People Strategy*, strategic workforce plan, February 2023.

While we would generally expect more robust justification for additional opex, including information that clearly explains the drivers, associated costs, and quantified benefits, our assessment suggests that Sunwater's decision to increase its entry level intake is prudent.

We accept that 8 of the 32 FTE increases between 2019–20 and 2022–23 have been due to graduates, cadets, and apprentices. As such, we have accepted this proportion of the proposed increase,[72] which we estimate at $0.4 million since the 2020 review.

We note that the increase in the O&M workforce has been accompanied by a significant decline in utilisation rates.[73] 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.[74] We observed in the draft report that some of the increase in direct labour costs in 2022–23 could have been in anticipation of future growth in activity in non-regulated service contracts. However, Sunwater said that we had incorrectly assumed lower utilisation rates, combined with higher costs and no growth in regulated services, indicated cost growth was driven by non-regulated services.[75] We note that our adjustment to direct labour costs is independent of the observation that the 2022–23 increase may partly have been in anticipation of growth in non-regulated activity. We also consider there is scope for improvement in utilisation rates.

In addition to hiring more FTEs, Sunwater attributed the increase in labour costs to increasing wages due to the EA and the increasing number of hours charged to schemes at higher wage rates.[76]

We note that growth in the consumer price index (CPI) over the period 2018–19 to 2022–23 outstripped growth in the wage price index over this period. Therefore, we consider that adjusting the 2020 review opex allowance for CPI growth over this period results in an overall allowance that is sufficient to accommodate general increases in wages arising from movement within Sunwater's staff bands.

In summary, we consider the level of direct labour opex in the 2020 review, adjusted for justified increases due to higher safety obligations and workforce ageing risks, to be an appropriate baseline (Table 7). We note that the 2020 review allowance has been adjusted for the significant increase in inflation over the price path period, thereby maintaining real wages over this period.

Some stakeholders expressed concern about the high level of labour cost increases in some schemes relative to the 2020 review allowance.[77] However, we are satisfied that the approach to allocating the business-wide allowance is appropriate as our position on labour costs at the scheme level reflects the average direct labour costs over the last five years as a proportion of direct labour costs across all regulated schemes and aligns with the proportion of outturn costs faced by each scheme.

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72 This is based on the regulated schemes' share of the real increase in labour directly charged from local overhead cost centres.

73 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 are avoiding non-productive activities.

74 In the 2020 review, our forecast for direct labour costs and overhead and indirect costs was based on an assumed utilisation rate of 88%, noting that we considered a target of 90% to be comparable to best practice. Sunwater's actual utilisation rates for 2021–22 and 2022–23 were approximately 78% and 80%, respectively. Data for 2020–21 is unavailable.

75 Sunwater, sub. 85, pp. 37–38.

76 Sunwater, sub. 9, pp. 75–77.

77 Central Downs Irrigators, sub. 70, p. 1; CHCGIA, sub. 71, p. 2; Cotton Australia, sub. 72, p. 4; Jovalan Farms, sub. 77, p. 1.

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

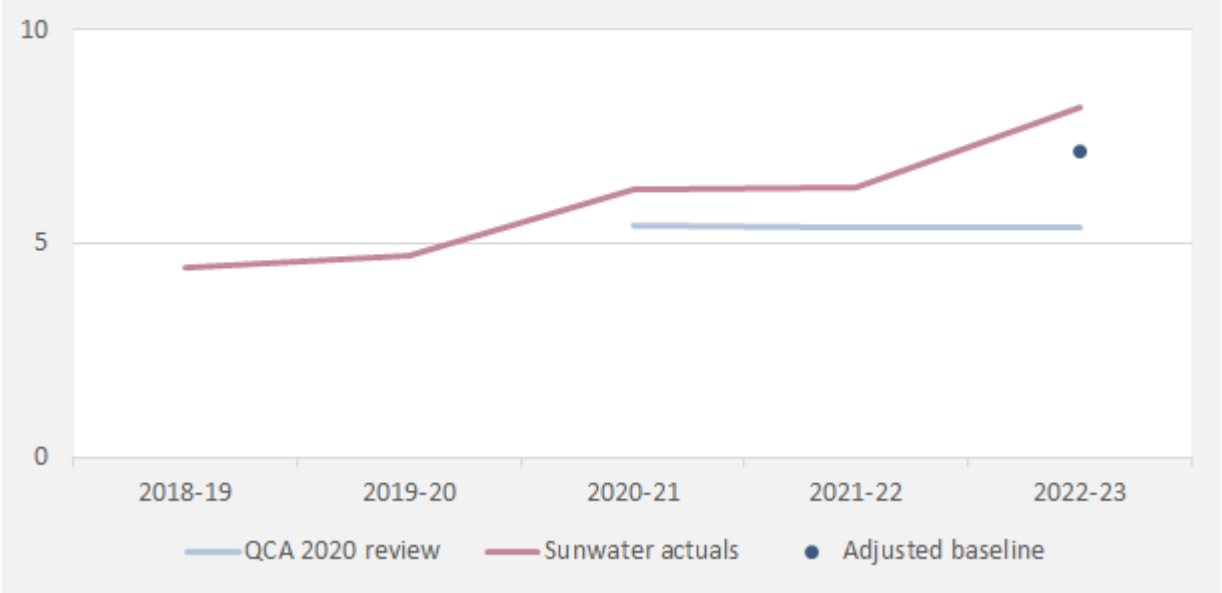
	Amount
Adjusted baseline	**12.1**
Adjustment for efficiency	(0.2)
QCA position	**11.9**
2020 review[a]	11.3

a Opex from the 2020 review relates to allowed 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 expenditure is $1.8 million (32.6%) higher than the 2020 review allowance (Figure 8).

Figure 8: Actual other direct O&M relative to QCA allowance ($ million, 2022–23 dollars)



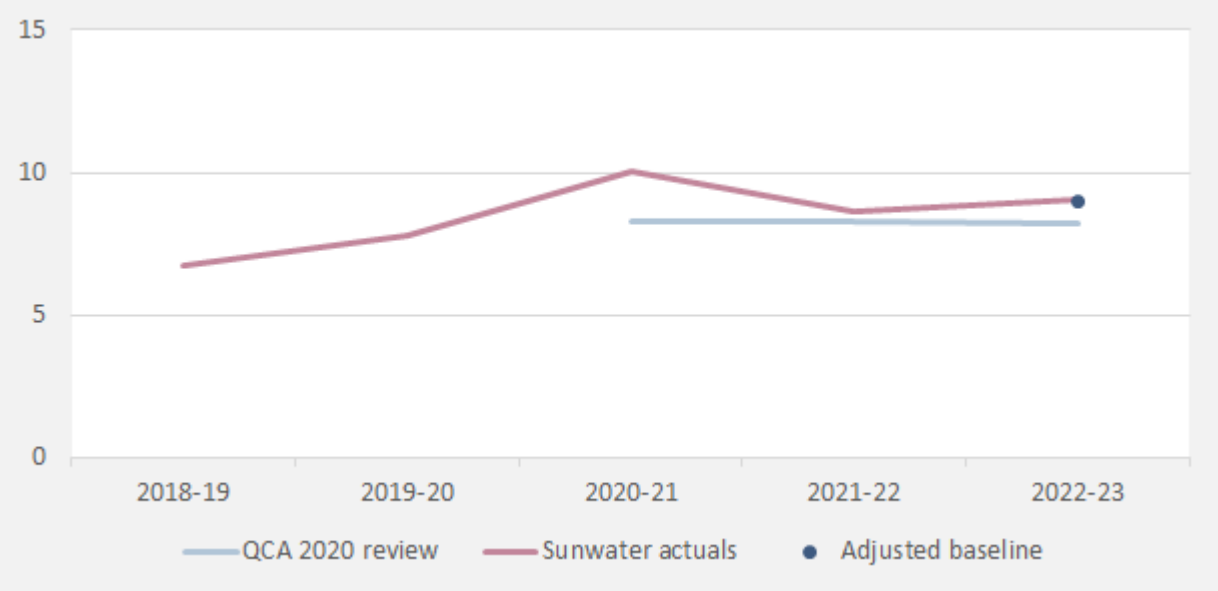
Notes: 1. The adjusted baseline incorporates our adjustments to Sunwater's 2022–23 actuals for non-recurrent costs.
2. Opex from the 2020 review relates to the allowed level of other direct O&M opex for 2020–21 to 2022–23 adjusted for the difference between our forecast of inflation and actual inflation.
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 current price path period with the allowance from the 2020 review.

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



Note: Opex from the 2020 review relates to the allowed level of insurance costs 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 current price path period, as well as the proposed increase in 2024–25 throughout the next price path period.[78] Stakeholders particularly questioned the options Sunwater has explored for insurance, including the option of self-insurance,[79] as well as the possibility of a government-wide insurance scheme similar to arrangements for electricity.[80] However, we note that, unlike electricity, insurance premiums are based on an entity's unique risk profile and coverage needs, making it less suited to a standardised government scheme. We note that Sunwater, as a government owned corporation, is not eligible to insure with the Queensland Government's insurance scheme, Queensland Government Insurance Fund.[81]

Sunwater's insurance premiums have risen significantly since the 2020 review. This has resulted in premiums rising more than the allowance 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.[82]

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

- using a professional insurance broker to access the global market and provide advice on the appropriate level of insurance
- actively engaging with insurers to ensure they have good knowledge of the risk profile of its assets and services

78 BRIA Irrigators, sub. 42, p. 14; CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, p. 6; EICL, sub. 74, pp. 1–2; Fairbairn Irrigation Network, sub. 50, p. 5; Nogoa-Mackenzie IAC, sub. 57, p. 1; Queensland Farmers' Federation (QFF), sub. 59, p. 3; Tranquility, sub. 88, p. 1.
79 BRIA Irrigators, sub. 42, p. 14; 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; QFF, sub. 59, p. 3.
80 Tranquility, sub. 88, p. 1.
81 Queensland Government, *Our clients*, Queensland Government Insurance Fund website, accessed 28 November 2024.
82 Sunwater, sub. 9, p. 69.

- regularly reviewing insurance policy specifications (including deductibles) and potential options for self-insurance
- undertaking 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.[83]

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%.[84]

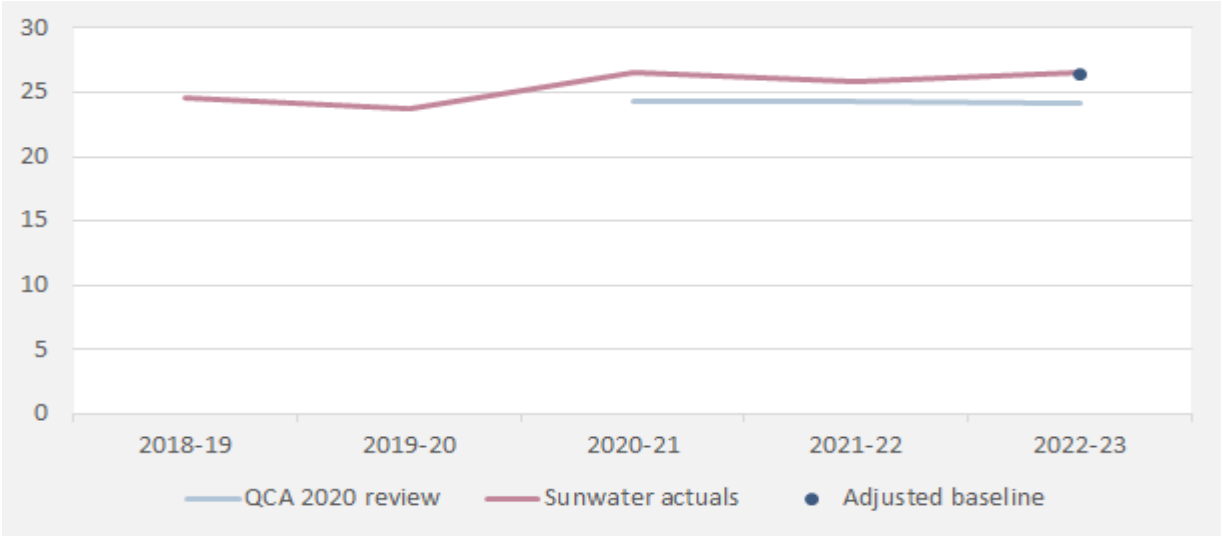
However, we note that the potential pass-through of a $20 million deductible, if recovered through the annuity, would result in an additional $1.2 million in annual scheme costs over the next 30 years. Given that total annual scheme-level costs range from less than $1 million per year up to $20 million per year, an additional $1.2 million per year in cost would be excessive in some schemes. We have therefore accepted 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.

Overhead and indirect costs

The adjusted baseline for overhead and indirect costs is $2.2 million (9.2%) higher than the 2020 review allowance (Figure 10).

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



Note: Opex from the 2020 review relates to the allowed level of overhead and indirect costs 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.

[83] Sunwater, sub. 9, pp. 68–71; AtkinsRéalis, Sunwater report, June 2024, pp. 162–163.
[84] AtkinsRéalis, Sunwater report, June 2024, pp. 164–165.

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.[85]

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 directly attributed 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.

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 expenditure and non-renewals 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: Sunwater, supporting information accompanying sub. 9; QCA analysis.

For the purposes of this review, Sunwater proposed a change to the cost allocation methodology outlined in Figure 11. Specifically, Sunwater proposed that the capital and operating costs associated with its new billing and customer relationship management system, CASPr, be allocated based on customer numbers rather than direct labour costs. However, this proposed allocation

[85] Central Downs Irrigators, sub. 46, pp. 2–3 and sub. 70, p. 1; CHCGIA, sub. 47, p. 2 and sub. 71, p. 2; Cotton Australia, sub. 48, pp. 2, 3–5 and sub. 72, p. 4; Eton Irrigation Cooperative Ltd (EICL), sub. 49, p. 2 and sub. 74, pp. 2–3; Fairbairn Irrigation Network, sub. 50, p. 6; Jovalan Farms, sub. 77, p. 1; Lower Burdekin Water, sub. 54, pp. 4, 6; Mallawa Irrigation, sub. 55, p. 2 and sub. 79, p. 1; Nogoa-Mackenzie IAC, sub. 57, p. 1; Pioneer Valley Water Co-operative, sub. 80, p. 2; QFF, sub. 83, pp. 3, 5–6.

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.[86] As explained 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).[87] 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 response to our draft report, Sunwater said it does not support our approach of recovering CASPr costs via the corporate overheads allowance.[88] Sunwater argued that, as the benefits and functions of the CASPr system will be shared equally among Sunwater's customers, CASPr costs should be allocated using customer numbers.[89] While Sunwater acknowledged that further work will be required to improve the causal link between its cost allocator and relevant cost centres, it said this is not a valid reason to reject its approach to apply a casual allocator where one is readily available.[90] Sunwater said that recovering CASPr via corporate overheads would lead directly to cost under-recovery and runs counter to the regulatory principle of user pays.[91]

AtkinsRéalis reviewed Sunwater's position on the allocation of CASPr costs and noted that:

- changing the cost allocation approach in a piecemeal way will not improve the overall causal link between the total overhead and indirect costs allocated and the schemes or customers to which they are allocated
- only amending the allocation approach for one expenditure item (because of its high profile), and not examining the others, would risk further skewing the overall allocation of costs
- a preliminary assessment of a more causal approach – using totex as the primary allocator – showed that overheads and indirect costs allocated to regulated schemes would be lower than under the current approach and that selective use of a more causal metric, as proposed by Sunwater, may not improve cost reflectivity.[92]

We consider that these arguments constitute a reasonable basis for maintaining the approach of allocating CASPr costs via the corporate overhead allowance.

We note that 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.[93] 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).[94]

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86 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.

87 AtkinsRéalis, Sunwater report, June 2024, pp. 93–97.

88 Sunwater, sub. 85, p. 8.

89 Sunwater, sub. 85, p. 53.

90 Sunwater, sub. 85, p. 53

91 Sunwater, sub. 85, p. 54.

92 AtkinsRéalis, Sunwater supplementary report, January 2025, p. 43.

93 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.

94 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,[95] the proposed recovery rates are significantly higher than those used in the 2020 review.

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

	2020 review	Sunwater's proposal[a]
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[b]	72	46
Distribution systems	52	35

a Sunwater has capped its proposed recovery rates for corporate and local overheads below the applicable calculated cost recovery rates. b These recovery rates do not account for costs associated with resources centres such as flood event management, operations and emergency preparation.
Note: 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.
Source: Sunwater, response to RFI 68; QCA analysis.

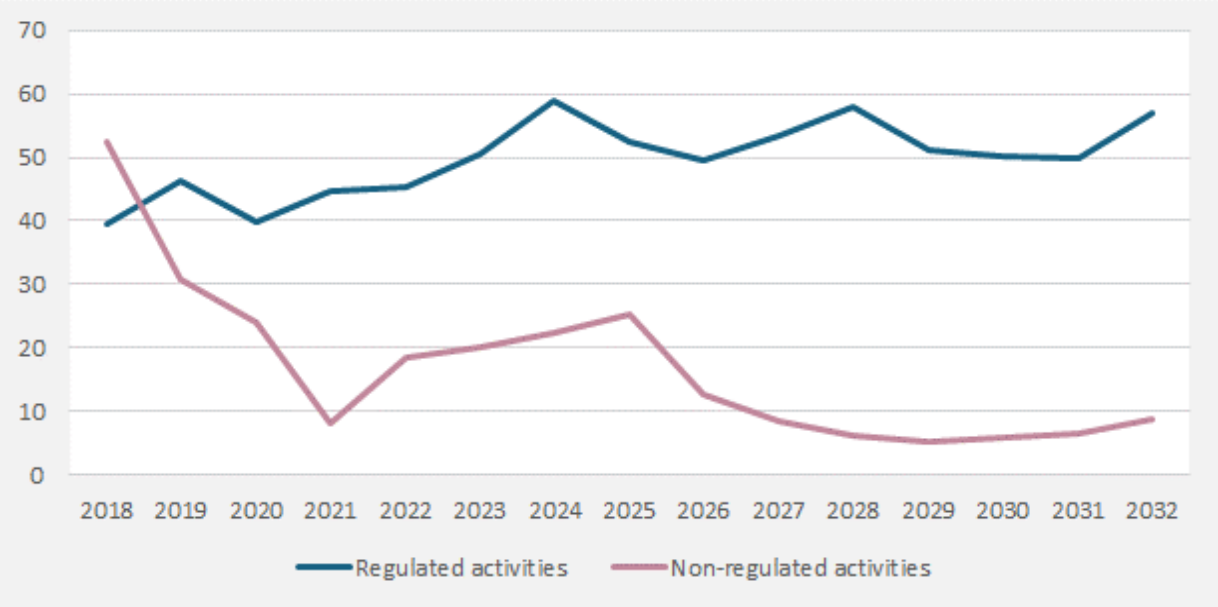
In reviewing Sunwater's cost allocation approach, AtkinsRéalis noted that while direct costs associated with non-regulated services are projected to grow faster than direct costs associated with regulated services, regulated services are expected to attract a disproportionate share of overhead and indirect costs.[96]

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).

[95] 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).

[96] AtkinsRéalis, Sunwater report, June 2024, pp. 87–89.

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



Note: 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.[97]

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

- Use totex to allocate overheads relating to planning, risk, contracts and assets.
- Use direct labour to allocate overheads relating to people management.
- Use customer metrics (e.g. numbers or revenue) to allocate overheads relating to customer service and billing.[98]

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.[99]

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. In its response to our draft report, Sunwater said that it has commenced planning for a review of its approach to cost allocation.[100] Sunwater requested that we provide guidance on how we might assess a revised cost allocation proposal at the next irrigation pricing review.[101]

We consider that costs should be allocated based on the following principles:

- Direct attribution – wherever possible, costs should be directly attributed to the relevant service contract.

97 AtkinsRéalis, Sunwater report, June 2024, pp. 92–93.
98 AtkinsRéalis, Sunwater report, June 2024, pp. 94–95.
99 AtkinsRéalis, Sunwater report, June 2024, pp. 95–96.
100 Sunwater, sub. 85, p. 96.
101 Sunwater, sub. 85, p. 96.

- Causal allocation – costs that cannot be directly attributed to a service contract should, where possible, be allocated based on a causal relationship between the cost allocation metric and the use of the service for which the costs have been incurred.
- Non-causal allocation – where costs are not directly attributable or cannot be allocated using a causal metric, these costs may be allocated using a non-causal metric, so long as this is closely correlated with the use of the service for which the costs have been incurred.
- Transparency, predictability and simplicity – the methodology should be administratively simple to implement, easy to understand and result in relatively stable outcomes over time.

Finding 1: Review the existing cost allocation methodology

Sunwater should review its cost allocation methodology for the purposes of allocating costs to regulated schemes.

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 $0.7 million from the 2020 review allowance.

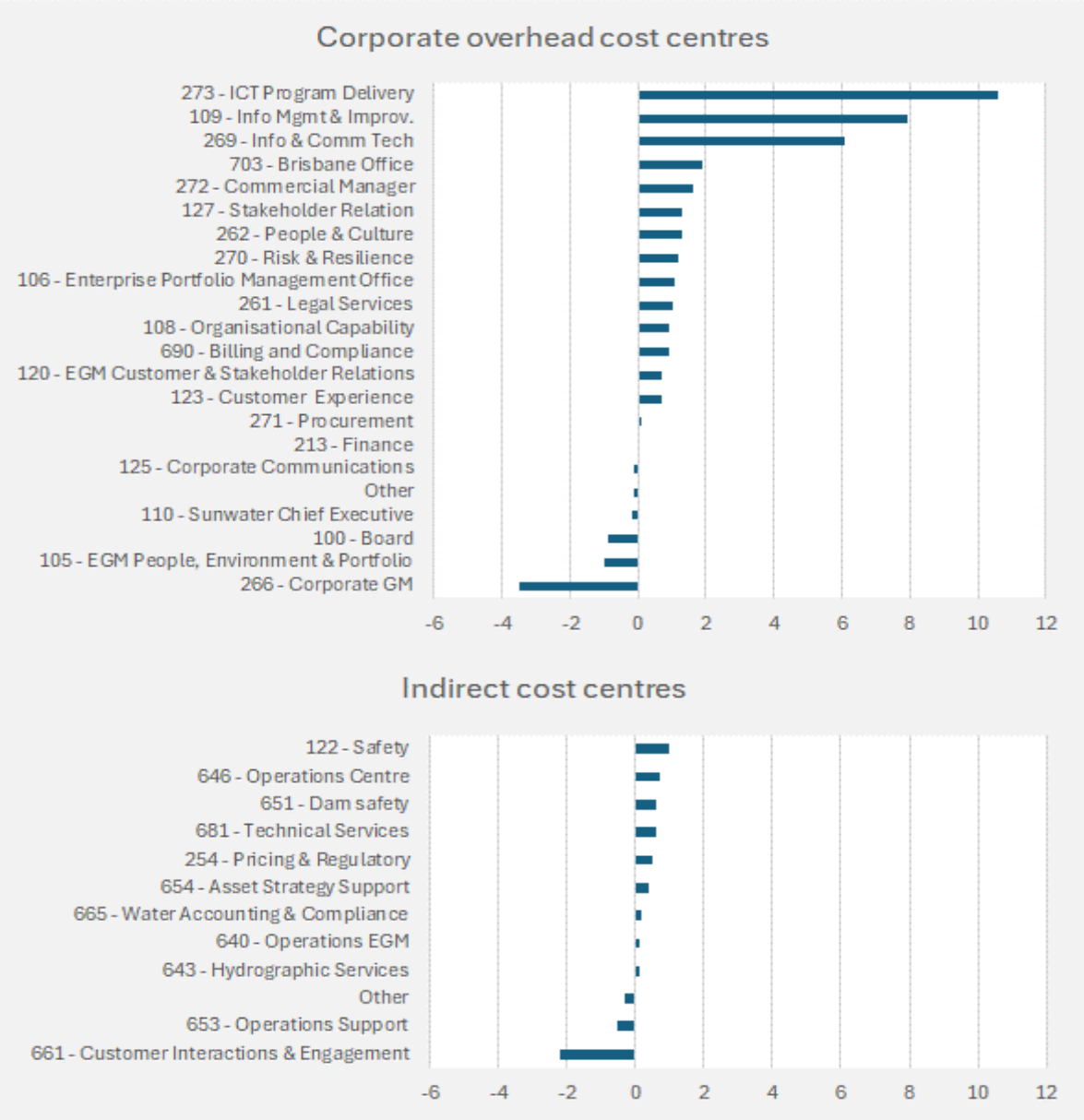
We note that there has been a significant increase in the overall corporate overhead base between 2019–20 and 2022–23 (Figure 13). There have been smaller increases in most indirect cost centres and a reduction in the customer interactions and engagement pool due to the depreciation for the previous 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.[102] This analysis suggests that Sunwater is not obviously more efficient than other rural water businesses.

We consider that the lack of sufficient comparative data prevents detailed and conclusive benchmarking analysis of Sunwater's corporate costs. As such, we have placed limited weight on this analysis.

[102] AtkinsRéalis, Sunwater report, June 2024, pp. 79–86.

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

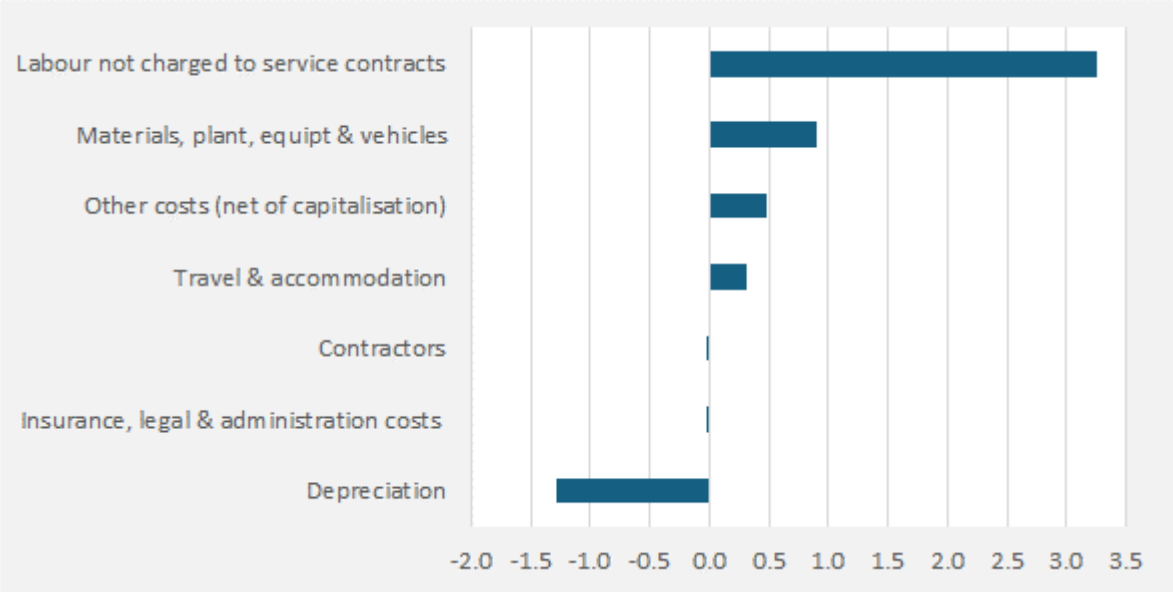


Source: Sunwater, response to RFI 68; QCA analysis.

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 $1.5 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 dollars)



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

Our position on overhead and indirect costs

Overall, our assessment indicates that Sunwater incurred significant increases in the overhead and indirect cost base during the current 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.[103] 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 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.[104] While Sunwater said that this does not demonstrate

[103] AtkinsRéalis, Sunwater report, June 2024, pp. 57–58.
[104] AtkinsRéalis, Sunwater report, June 2024, p. 113.

inefficiency in final project costs,[105] AtkinsRéalis concluded that there would have been a different pattern of investments if the costs had been more accurately estimated and the business had been operating within a constrained total budget.[106]

The only ICT costs with clear benefits to regulated schemes are those relating to cyber risk and associated legislation, which appear to be driven by regulatory obligations, requiring 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 a 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. Sunwater responded to this conclusion by stating that we incorrectly relied on its low utilisation rates in 2022–23 in concluding that the increase in its local overheads was not prudent and efficient.[107] We maintain our view that the lower utilisation rates are not efficient, noting Sunwater's own projections for utilisation rates to improve significantly beyond 2022–23. However, we have allowed for an increase in local overheads relative to the 2020 review allowance, to account for the local overhead costs associated with the increase in direct labour since 2019–20 as a result of the increase in FTEs to address workforce ageing risk.

Sunwater also indicated that we failed to consider the impacts of safety obligations on local overheads, stating that time and effort to ensure safe working practices drives costs in regional resource centres where operational leadership roles are located.[108] We have made an adjustment since our draft report to allow for the local overhead costs associated with the labour directly charged to regulated schemes from the safety cost centre.

We consider it is appropriate to pass on a portion of the increases in the overheads and indirect cost base that we have identified to be justified (Table 9).[109]

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105 Sunwater, sub. 85, p. 39.
106 AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 20–21.
107 Sunwater, sub. 85, p. 40.
108 Sunwater, sub. 85, p. 40.
109 AtkinsRéalis, Sunwater report, June 2024, pp. 98–99.

Table 9: QCA position – change in corporate overhead and indirect costs allocated to opex in regulated schemes since the 2020 review ($ million, 2022–23 dollars)

Cost centre	Cost category	Change in cost[a]	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
Retirement of Orion billing system[b]	Indirect	(2.0)	(0.8)
Safety	Indirect	0.9	0.4
Dam safety	Indirect	0.6	0.2
Total		**3.0**	**0.6**

a Reflects the change in corporate overhead and indirect costs allocated to regulated schemes in the 2022–23 base year relative to the 2020 review allowance. b The depreciation charge for the Orion billing system (coded as an indirect cost in the 2020 review allowance) ceased in 2021–22.
Note: Totals may not add due to rounding.
Source: AtkinsRéalis, Sunwater report, June 2024, pp. 98–99; QCA analysis.

Sunwater said the depreciation component of the Orion billing system ranged between $1.6 million and $1.7 million annually, ending in 2021–22.[110] However, we note that Sunwater's figures are nominal, with the amounts of $1.7 million in both 2018–19 and 2019–20 equivalent to $2.0 million in real 2022–23 terms.[111]

The net effect of our adjustments is that, relative to the adjusted baseline, there is a net decrease of $0.1 million in corporate overheads and $1.2 million in local overheads (Table 10).

Table 10: QCA position – overhead and indirect costs allocated to opex in regulated schemes ($ million, 2022–23 dollars)

	Corporate overheads	Local overheads	Indirect costs	Total
Adjusted baseline[a]	12.1	8.2	6.2	**26.5**
Our position[b]	12.0	7.0	6.2	**25.2**
Difference	**(0.1)**	**(1.2)**	**-**	**(1.3)**

a This reflects Sunwater's 2022–23 actuals. b Relative to the 2020 review allowance, we have increased the combined level of corporate overheads and indirect costs by $0.6 million, reflecting the increases in the cost base we have assessed to be justified. We have increased local overheads by $0.4 million relative to the 2020 review allowance.
Note: Totals may not add due to rounding.
Source: Sunwater, sub. 9; QCA analysis.

Our position amounts to a 4.0% increase in overhead and indirect costs relative to the 2020 review allowance ($24.3 million)[112] but a 4.8% reduction relative to Sunwater's proposed baseline ($26.5 million).

While we acknowledge that Sunwater is not proposing to recover the full increase in the overhead and indirect cost base from regulated schemes, we consider our adjustments result in a more

110 Sunwater, sub. 85, pp. 54–55.
111 Sunwater, response to RFIs 68 and 138; QCA analysis.
112 Adjusted for the difference between our forecast of inflation and actual inflation.

appropriate baseline, as they only include increases for which we have identified clear cost drivers for regulated schemes.

QFF considered that there are further opportunities to reduce overhead and indirect costs.[113] QFF was concerned that the increase in overheads was a result of increases in FTEs. We note that we have adjusted local overheads to only reflect justified FTE increases relating to safety and the mitigation of workforce ageing risk.

Implications for allocation of overhead and indirect costs to renewals

In response to our draft report, Sunwater said that it supported, in principle, our adjustment to the cost recovery rate for overhead and indirect costs that is applied to the direct labour component of forecast renewals expenditure, as a consequence of our adjustments to the overhead and indirect cost component of baseline opex (see section 4.3.2).[114] However, Sunwater said that given direct labour costs is also a parameter used to determine cost recovery rates, any adjustment we make to direct labour costs should be factored into the cost recovery rate calculation.[115]

We have revised Sunwater's proposed cost recovery rates for the changes in baseline opex (Table 10) as well as the step change for CASPr (section 4.4.1). We have also adjusted our cost recovery rates to incorporate the $0.8 million baseline adjustment to direct labour costs. Relative to Sunwater's proposal, our position results in a higher cost recovery rate for corporate overheads and indirect costs and a lower cost recovery rate for local overheads. Table 11 shows our cost recovery rates, which we have applied in deriving our alternative estimate for Sunwater's forecast renewals program (section 5.4.4).

Table 11: QCA position – cost recovery rates (%)

	Sunwater's proposal	QCA draft position	QCA position[a]
Corporate overheads[b]	95	98	101
Local overheads[c]	64	52	57
Indirect costs			
Bulk schemes	46	46	47
Distribution systems	35	35	37

a Relative to our draft position, we have adjusted the cost recovery rates for the change in the relevant baseline labour cost denominator. b Includes the recovery of the CASPr step change. c Calculated as the average across North, Central, Bundaberg and South regions.
Source: Sunwater, response to RFI 68; QCA analysis.

4.3.3 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.

113 QFF, sub. 83, p. 5.
114 Sunwater, sub. 85, p. 67.
115 Sunwater, sub. 85, p. 67.

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 current price path period. The agreement has a 10-year term, terminating in 2029. Sunwater currently purchases 86%[116] of its electricity through this agreement
- regulated retail prices – these prices are determined by us annually and cover mainly smaller-use sites. The number of sites on a regulated tariff has been reducing over time as regulated prices have increased.[117]

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, transfers the schemes to a market contract. [118] There are several factors that have meant it is currently preferable to maintain some schemes on a 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 sites 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.[119]

Given that Sunwater is making use of competitive 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, as further discussed in section 4.6.

Approach to optimising energy use

Sunwater said it has been carrying out energy audits since 2020[120] 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.

116 This relates to 2022–23 actual electricity consumption. From Sunwater, response to RFI 13.
117 Sunwater, sub. 15, p. 3.
118 Sunwater, sub. 9, p. 73.
119 Sunwater, sub. 15, pp. 2–5.
120 Sunwater, personal communication during an interview with AtkinsRéalis.

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.[121]

Sunwater's energy consumption during 2022–23 was 30% below the 6-year average and 22% below the long-term average of 16 years.[122]

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[123] divided by average actual water usage over the same 6-year period
- 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,[124] Sunwater's proposed baseline is significantly less than the total allowance provided 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	14.5	(4.0)

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 our assessment 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.

4.4 Step changes

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

- billing and customer relationship management system renewals expenditure – Sunwater proposed a step change to cover the implementation of its new billing and customer relationship management system, CASPr (section 4.4.1)

[121] 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.
[122] Sunwater said that 16 years is the extent of records that it has available.
[123] 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.
[124] Note that actual water usage in 2022–23 in each of the distribution systems was also below the historical 20-year average.

- renewals opex – under its proposed RAB approach, Sunwater has proposed to recover the opex component of its annual forecast renewals expenditure as an opex step change (section 4.4.2)
- QCA regulatory fee – while Sunwater proposed to treat the 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 4.4.3).

Our position is that it is appropriate to recover the regulatory fee and the total incremental cost of CASPr as a step change. However, we have allowed for the recovery of renewals opex in other parts of the allowance.

4.4.1 Customer and stakeholder project (CASPr)

Sunwater said it was investing $38.6 million[125] 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.[126] 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.[127] Sunwater also proposed a step change of $1.7 million each year of the price path period to account for the ongoing costs associated with this new system.[128] Sunwater proposed to share the build and ongoing costs 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 this project, as well as the approach to allocating these costs to schemes and individual customers.[129]

We note that Sunwater's proposed treatment of the build costs for this project 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.[130] For example, Sunwater's previous billing system was treated as non-infrastructure capex, with an amortisation charge incorporated in the overhead and indirect cost base allocated to the opex (and renewals) allowance in the 2020 review.[131]

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 consider that the treatment of non-infrastructure capex should be reviewed if Sunwater were to propose moving to a RAB approach for the next review.

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125 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.

126 Sunwater, sub. 9, p. 18.

127 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.

128 Sunwater, sub. 9, pp. 65–66.

129 BRIG, sub. 41, p. 4; BRIA Irrigators, sub. 42, p. 14 and sub, 67, p. 4; 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; Jovalan Farms, sub. 77, p. 1; Nogoa-Mackenzie IAC, sub. 57, p. 1; qldwater, sub. 81, pp. 2–3; Theodore Water, sub. 61, p. 1 and sub. 87, p. 1; Wilmar Sugar Australia, sub. 62. p. 1.

130 We note that Sunwater has treated this as part of corporate overheads in its own financial reporting.

131 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.

We applied the current approach to incorporating the incremental impact of the costs of this project until a more causal cost allocation approach is in place. Sunwater noted in its submission to the draft report that this was different to how we have treated the Seqwater water accounting system.[132] However, we accepted Seqwater's approach to recovering the costs of its new water accounting system due to its broad customer support and the immaterial cost impact.[133] These factors do not apply to Sunwater.

Build costs

AtkinsRéalis reviewed the need and timing of expenditure associated with this project and concluded that there was a need to replace Sunwater's previous billing system and implement a customer relationship 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.[134]

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.[135]

We have assessed the project to be prudent as:

- the previous billing system came to the end of its useful life in the current 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.

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.[136]

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.[137] 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.

We note that Sunwater identified a range of $4.5 million to $20 million in benchmarking analysis submitted as part of its proposal.[138] 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

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132 Sunwater, sub. 85, p. 53.
133 QCA, *Rural irrigation price review 2025–29: Seqwater*, final report, January 2025, pp. 27–28.
134 AtkinsRéalis, Sunwater report, June 2024, p. 115.
135 AtkinsRéalis, Sunwater report, June 2024, p. 115.
136 AtkinsRéalis, Sunwater report, June 2024, p. 124.
137 AtkinsRéalis, Sunwater report, June 2024, p. 119.
138 Sunwater, *Customer and Stakeholder Project (CASPr), Detailed Business Case*, Execution Phase, March 2023, p. 78.

- 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.[139]

We consider the cost estimate of $18.5 million appropriate given the inefficiencies associated with the chosen solution and noting it reflects the costs of similar implementations for water businesses with the size and customer base of Sunwater. Some stakeholders supported[140] our cost estimate whilst other stakeholders felt the costs remained too high.[141] QFF also raised concerns about the risk of future additional investments to maintain and upgrade the system.[142]

Sunwater said that AtkinsRéalis's review of the build cost was not supported by evidence, stating that the $18.5 million figure is a superseded and out-of-date figure that will not deliver the required benefits to Sunwater's customers. Sunwater proposed a revised build cost of $34.9 million that it said was aligned with the detailed business case after removing early-stage costs of the project.[143] Sunwater also said that AtkinsRéalis's review failed to acknowledge the iterative nature of ICT investment and integrations and provided an additional example of Greater Western Water's Platypus billing and collection systems, which had evolved from an initial cost of $15 million to $92.5 million.[144]

After reviewing Sunwater's response to the draft report, AtkinsRéalis reiterated its advice that early deficiencies in the management of the project, meant that lower cost options were eliminated early in the process.[145] AtkinsRéalis said that this led to an inefficient outcome.[146] AtkinsRéalis confirmed its assessment that the near doubling of costs from $18.5 million to $39 million was directly attributable to the implications of all the interconnectivity related works and actions taken to reduce risks associated with the chosen solution.[147] With regard to the example of Greater Western Water, AtkinsRéalis concluded that the example did not reflect a like-for-like comparison as Greater Western Water is a qualitatively different type of utility to Sunwater. Overall, AtkinsRéalis said its advice remains unchanged from its original findings.[148]

Taking this into account, we have maintained our estimate of $18.5 million, noting that it is at the upper end of publicly available estimates of similar implementations and reflects the costs of similar implementations for water businesses with the size and customer base of Sunwater. While Sunwater said that affordability on a cost per customer basis is not relevant to the selection of a solution, we consider it is sound business practice to take this into account when assessing the strength of a business case and to consider options for mitigating bill impacts.

We consider that treating the build cost as non-infrastructure 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 software as a service (SaaS) build costs in the 2020 review as capex, based on accounting standards at the time.[149] However, as with Sunwater's general approach to non-infrastructure 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.

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139 AtkinsRéalis, Sunwater report, June 2024, p. 124.
140 Canegrowers, sub. 68, p. 3; EICL, sub. 74, p. 1.
141 CHCGIA, sub. 71, p. 2.; Cotton Australia, sub. 72, p. 4; QFF, sub. 83, p. 4.
142 QFF, sub. 83, p. 4.
143 Sunwater, sub. 85, p. 43.
144 Sunwater, sub. 85, p. 50.
145 AtkinsRéalis, Sunwater supplementary report, January 2025, p. 35.
146 AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 35–36, 38.
147 AtkinsRéalis, Sunwater supplementary report, January 2025, p. 37.
148 AtkinsRéalis, Sunwater supplementary report, January 2025, p. 37.
149 Sunwater, *2020–21 Annual Report*, September 2021, p. 55; Sunwater, *2021–22 Annual Report*, September 2022, p. 51.

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.[150] Canegrowers agreed that the build costs should be treated as capex and amortised over a 15-year period and be incorporated into corporate overheads.[151]

Over a 15-year period, the annuitised build costs are $1.7 million per annum.

Ongoing opex

Sunwater proposed 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).[152] 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 being required ($0.3 million each year). Some stakeholders raised concerns about the high operating costs of the system.[153]

AtkinsRéalis 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.[154]

In response to our draft report, Sunwater proposed a smaller reduction than our proposed $0.7 million reduction, suggesting instead a reduction of $0.2 million due to additional system savings. Sunwater said that $0.5 million of our proposed additional reductions should be reversed because this reduction incorrectly assumed:

- that a redeployment would result in an increase in costs of $0.2 million
- a further $0.3 million in labour savings, which has not been substantiated.[155]

AtkinsRéalis said that excluding redeployed labour costs when calculating incremental costs would effectively increase incremental ICT costs by $0.2 million.[156] AtkinsRéalis also noted that the $0.3 million labour cost savings were based on Sunwater's assumption of two FTE savings plus an additional FTE, as well as the benefits from CASPr being realised earlier than Sunwater envisaged.[157] We consider this reasoning to be robust and have applied these adjustments to the net incremental cost.

Net step change

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

150 AtkinsRéalis, Sunwater report, June 2024, p. 123.
151 Canegrowers, sub. 68, p. 3.
152 Sunwater, supporting information accompanying sub. 9.
153 CHCGIA, sub. 71, p. 2; qldwater, sub. 81, p. 2; QFF, sub. 83, p. 4.
154 AtkinsRéalis, Sunwater report, June 2024, p. 87.
155 Sunwater, sub. 85, p. 56.
156 AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 40–41.
157 AtkinsRéalis, Sunwater supplementary report, January 2025, p. 41.

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

	Amount
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
Net impact – build costs	**1.7**
Total net incremental cost	**2.4**
Share allocated to regulated schemes	**0.5**

Source: Sunwater, sub. 9; AtkinsRéalis, Sunwater report, June 2024, p. 87; QCA analysis.

Allocating the resulting $2.4 million across regulated and non-regulated service contracts using Sunwater's current cost allocation approach for corporate overheads results in $0.5 million to be recovered from regulated schemes. This approach to allocating CASPr costs was supported by some stakeholders.[158]

Sunwater submitted that our treatment of CASPr removes the potential for ex post review, stating that this is inappropriate for a project of this scale and complexity and places too high an investment risk on Sunwater.[159] The actual costs have not been finalised as the system has not yet gone live.[160] Given we are treating the build costs as non-infrastructure capex and the project is not yet complete, we consider it reasonable for the actual costs to be subject to an ex post assessment of prudency and efficiency, along with other renewals expenditure. Given this project is nearing completion, we expect the review to focus primarily on variations in scope, costs or timelines since this assessment.

4.4.2 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.[161] 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.

As discussed in Chapter 7, Sunwater significantly amended its capitalisation approach for regulatory pricing in response to our draft report, resulting in greater capitalisation of expenditure that provides benefits over multiple periods.[162] We explain in Chapter 7 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 described in Chapter 5.

158 BRIA, sub. 67, p. 4; EICL, sub. 74, pp. 1, 3.
159 Sunwater, sub. 85, p. 44.
160 Sunwater, response to RFI 25 (post-draft).
161 Sunwater, sub. 9, p. 113.
162 Sunwater, sub. 85, p. 87.

4.4.3 Regulatory fee

Several stakeholders did not support the recovery of our regulatory fees through irrigation prices and considered they should be excluded.[163] In addition, QFF recommended a longer period between pricing reviews to give the businesses greater certainty on pricing and reduce regulatory costs paid for pricing reviews, which in effect would contribute to lower prices for all stakeholders.[164]

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.[165]

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. 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 the referral limits our review to pricing for irrigation customers in Sunwater's regulated schemes. The structure and level of prices for non-irrigation customers in these regulated schemes are outside the scope of our review and are matters for Sunwater to negotiate with customers. As we are undertaking this review in accordance with the requirements in the referral, including the gradual transition to a price target that excludes a return on pre-2000 assets and dam safety upgrade capex, 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 estimate of the WACC.

4.5 Efficiency target

Sunwater initially proposed an ongoing efficiency target of 0.5% per annum, which we proposed to accept given the potential for ongoing efficiencies over the upcoming price path period.

However, in response to the draft report, Sunwater said that we should not apply an ongoing efficiency target if we maintain our adjustments to its proposed opex.[166] Sunwater expressed concerns that our adjustments to baseline expenditure mean the actual efficiency gains needed exceed its initially proposed 0.5% target and argued that our adjustments increase the burden of required savings. One stakeholder said Sunwater should implement a robust efficiency program to

[163] Canegrowers, sub. 68, p. 4; CHCGIA, sub. 47, p. 2 and sub. 71, p. 2; Cotton Australia, sub. 72, p. 2; EICL, sub. 74, p. 2; Nogoa-Mackenzie IAC, sub. 57, p. 1; Queensland Farmers' Federation (QFF), sub. 83, p. 4.
[164] QFF, sub. 59, p. 4.
[165] QFF, sub. 59, p. 4.
[166] Sunwater, sub. 85, p. 41.

identify and realise cost savings[167] while another stakeholder suggested incentives to keep Sunwater's costs down.[168]

We note that our adjustments to Sunwater's opex reflect efficiencies that are largely specific to Sunwater – that is, catch-up efficiencies to move Sunwater closer to the frontier (i.e. best performing comparable businesses). By contrast, the ongoing efficiency target is meant to reflect the movement of the efficient frontier over time, as productivity increases from improvements in technology and management practices.

In forming a view as to an appropriate ongoing efficiency target, we have considered historical growth in multifactor productivity (MFP), which measures productivity by comparing a measure of output produced with a measure of combined inputs used to produce that output.

We note that the estimate by the Australian Bureau of Statistics (ABS) of MFP for the most recent growth cycle[169] suggests an annual growth rate of 0.8% in market sector MFP over this period.[170] However, we are mindful that this estimate relates to the market sector as a whole and may not necessarily reflect the potential for productivity growth in the water sector. Moreover, there may be an element of catch-up efficiency in this estimate.

We also note AtkinsRéalis's assessment that Sunwater's initial 0.5% target is at the lower end of estimates applied in recent regulatory decisions in the water sector in Australia.[171] However, we consider that an element of caution is required when comparing efficiency factors applied in different contexts. In the case of Victorian water businesses for example, we note that under the PREMO regulatory framework, businesses that offer up relatively high efficiency targets are rewarded with a higher return on capital. Furthermore, some of the efficiency targets are in the context of real growth in the baseline opex allowance, whereas we only escalate baseline opex for input cost inflation.

Taking these factors into account, we have adopted a conservative approach and applied an ongoing efficiency target of 0.2%. We note that this is consistent with the target we applied in the 2020 review.

We consider this target to be achievable given the significant potential for opex efficiency 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 savings in the use of electricity by implementing measures emerging from its power correction factor study[172]
- technology – Sunwater's Technology Strategic Roadmap outlines substantial enhancements, particularly in technology-enabled workforce and automation.[173] As noted by AtkinsRéalis, when combined with previous significant investments in capability improvement and ICT, this

167 Canegrowers, sub. 68, pp. 1–2.
168 EICL, sub. 74, p. 3.
169 Growth cycles are determined by reference to deviations from the long-term trend in productivity growth as well as general economic conditions. As stated by the ABS, growth cycle analysis can minimise the effects of some temporary influences on productivity by averaging productivity measures over a cycle. The ABS has identified 2017–18 to 2021–22 as the most recent growth cycle.
170 ABS, *Australian System of National Accounts*, 2023–24 financial year, 'Table 14: Productivity in the market sector, growth cycle analysis', accessed 16 January 2025.
171 AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 23–25.
172 AtkinsRéalis, Sunwater report, June 2024, pp. 156, 163.
173 Sunwater, response to RFI 54.

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[174]

- 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.

4.6 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.[175]

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 price path period, mainly due to lower electricity prices.[176]

Our position is to accept Sunwater's proposed review event adjustment for insurance costs and to include a review event adjustment for electricity costs. We adjusted forecast opex for each scheme by smoothing the cost adjustment over the price path period (Table 15).

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

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater revised	**1.7**	**1.8**	**1.8**	**1.9**	**7.2**
Insurance	1.7	1.8	1.8	1.9	**7.2**
Electricity	-	-	-	-	**-**
QCA position	**0.8**	**0.9**	**0.9**	**0.9**	**3.5**
Insurance	1.7	1.8	1.8	1.9	**7.2**
Electricity	(0.9)	(0.9)	(0.9)	(1.0)	**(3.7)**
Total difference	**(0.9)**	**(0.9)**	**(0.9)**	**(1.0)**	**(3.7)**

Notes: 1. The electricity review event adjustment has been reduced to account for credits paid to customers under the electricity cost pass-through trial. 2. Total may not add due to rounding.
Source: Sunwater, sub. 9, pp. 39–40; Sunwater, response to RFIs 23 and 24 (post-draft); QCA analysis.

174 AtkinsRéalis, Sunwater report, June 2024, p. 163.
175 Referral, para. B(1.1)(a); QCA, *Rural irrigation price review 2020–24, Part A: Overview*, final report, January 2020, p. 43.
176 Sunwater, sub. 9, p. 39.

4.6.1 Insurance review event

Sunwater initially proposed to recover an additional $10.5 million in insurance premiums over the current price path period, reflecting the difference between the allowance for insurance premiums and Sunwater's actual insurance premiums.[177] However, this figure was subsequently revised down to $6.2 million, reflecting updated costs provided by Sunwater for 2023–24 and 2024–25.[178]

Some stakeholders objected to Sunwater's proposal to recover the additional costs.[179] 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 price path period.[180] 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.[181] We consider that the overspend is prudent and efficient, noting that AtkinsRéalis found that Sunwater had taken appropriate steps to manage and mitigate the increase in premiums, including:

- 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.[182]

We also note that Sunwater was able to reduce the overspend initially estimated for 2023–24 and 2024–25. Sunwater advised that the reduction reflected a restructuring and remarketing of its liability insurance program, alongside improved market conditions and the resolution of a legacy dispute that expanded the pool of competing insurers.[183]

We consider that the increase in insurance premiums is material. Over the current price path period, Sunwater's premiums are expected to be 16.0% higher than forecast, and the increase in premiums is around 1.7% 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: QCA position – insurance review event cost adjustment ($ million, nominal)

	2020-21	2021-22	2022-23	2023-24[a]	2024-25[a]	Total
Sunwater proposed	1.5	0.6	1.3	3.0	3.9	**10.5**
Sunwater revised	**1.5**	**0.6**	**1.3**	**2.1**	**0.5**	**6.2**
QCA position	**1.5**	**0.6**	**1.3**	**2.1**	**0.5**	**6.2**

a These figures have been updated since the draft report.
Note: Totals may not add due to rounding.
Source: Sunwater, supporting information accompanying sub. 9; Sunwater, response to RFI 24 (post-draft).

177 Sunwater, sub. 9, pp. 39–40; Sunwater, 08 Insurance Catchup Final Values.
178 Sunwater, response to RFI 24 (post-draft).
179 Cotton Australia, sub. 48, p. 6; BRIA Irrigators, sub. 42, p. 14; BRIG, sub. 41, p. 4.
180 BRIA Irrigators, sub. 42, p. 14.
181 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.
182 AtkinsRéalis, Sunwater report, June 2024, p. 164.
183 Sunwater, response to RFI 24 (post-draft).

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.[184]

4.6.2 Electricity review event

Overall, Sunwater made significant savings in electricity costs over the current price path 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 prices 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.[185]

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.[186]

However, Sunwater did not propose a review event adjustment to pass through the electricity cost savings, because:

- cost savings reflecting customers' contribution to electricity costs had already been returned to customers through the electricity cost pass-through (ECPT) trial
- the additional cost savings should not be returned to customers because they reflect the government's contribution to costs, and Sunwater intends to return the additional cost savings to the government.[187]

We maintain our draft position that it is appropriate to make a cost adjustment if the review event definition is met, after subtracting the amounts returned to customers through the ECPT trial.

In accordance with the referral, review event adjustments are to be made to the opex allowance, which affects the level of the price target, not transitional prices.[188] The additional cost savings would only be returned to customers if their prices were at the price target in the next price path period. Furthermore, not all schemes participated in the ECPT trial and there is no guarantee that the additional cost savings will be returned to the government.

As the review event applies to material changes in electricity costs, we 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. Consistent with AtkinsRéalis's conclusion, we consider that Sunwater's actual electricity costs were prudent and efficient.[189]

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

184 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 27.
185 Sunwater, sub. 15, pp. 2–3.
186 Sunwater, sub. 9, p. 22; AtkinsRéalis, Sunwater report, June 2024, pp. 146–147.
187 Sunwater, sub. 9, p. 39 and sub. 85, pp. 93–95; Sunwater, response to RFI 17 (post-draft).
188 See referral, section 1, definitions of 'Allowable Costs' and 'Price Target'.
189 AtkinsRéalis, Sunwater report, June 2024, pp. 147, 172–173.

position is to make a cost adjustment for each of the three schemes, after subtracting the amounts returned to irrigation customers through the ECPT trial (see Table 17).[190] This includes subtracting the amounts returned (or expected to be returned) to customers in 2023–24 and 2024–25 due to Sunwater's recent decision to extend the ECPT trial.[191]

Table 17: QCA position – electricity review event cost adjustment ($ million, nominal)

Scheme	2020–21	2021–22	2022–23[a]	2023–24[a]	2024–25[a]	Total
Difference between actual and forecast electricity costs						
Bundaberg	(1.9)	(0.9)	(1.0)	(1.6)	(1.2)	**(6.7)**
Burdekin-Haughton	(1.2)	(3.2)	(1.9)	(2.3)	(1.4)	**(10.0)**
Eton bulk	–	(0.1)	(0.3)	(0.1)	(0.1)	**(0.7)**
Amount returned to irrigation customers during trial						
Bundaberg	1.9	0.7	0.7	1.3	1.0	**5.6**
Burdekin-Haughton	1.1	2.6	1.5	1.9	1.2	**8.4**
Eton bulk	–	–	–	–	–	**-**
Cost adjustment						
Bundaberg	–	(0.2)	(0.2)	(0.3)	(0.2)	**(1.0)**
Burdekin-Haughton	–	(0.6)	(0.4)	(0.4)	(0.2)	**(1.6)**
Eton bulk	–	(0.1)	(0.3)	(0.1)	(0.1)	**(0.7)**
Total	**(0.1)**	**(0.8)**	**(0.9)**	**(0.8)**	**(0.5)**	**(3.2)**

a These figures have been updated since the draft report.
Notes: 1. We also made an adjustment for the revenue impact resulting from the difference between forecast and actual usage. 2. Totals may not add due to rounding.
Source: Sunwater, sub. 9, p. 39; Sunwater, responses to RFI 159 and RFI 23 (post-draft); *Electricity Cost Pass-Through Trial*, Sunwater website, accessed 4 December 2024; QCA analysis.

The cost adjustments for the Bundaberg and Burdekin-Haughton schemes are lower than in our draft report because of the additional cost savings being returned to customers due to the extension of the ECPT trial.

190 BRIG (sub. 66, p. 1) and BRIA Irrigators (sub. 67, p. 4) supported our approach.
191 Sunwater, sub. 85, pp. 93–95; Sunwater, response to RFI 18; Sunwater, *Electricity cost pass-through trial*, Sunwater website, accessed 4 December 2024.

5 Renewals expenditure

This chapter sets out our position on the prudent and efficient level of expenditure on renewing existing assets in regulated schemes,[192] for the purpose of determining an appropriate allowance for renewals expenditure over the price path period.[193] This includes all renewals expenditure for regulated schemes, including the costs of supplying 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 have also identified potential for improvement in Sunwater's procurement processes (section 5.2.2).

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, mean 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 consider that Sunwater should develop an efficiency plan for the renewals program during the price path period, in consultation with customers, including an ongoing process to identify and implement spend-to-save initiatives.

We have adjusted the forecast renewals program to reflect the results 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 position on the prudent and efficient level of renewals expenditure is in Table 18.

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

	2019-20 to 2024-25[a]	2025-26 to 2028-29	2029-30 to 2057-58
Sunwater revised[b]	162.6	149.7	1,042.6
QCA adjustments	(7.0)	(27.8)	(211.5)
QCA position	**155.5**	**121.9**	**831.1**

a Net of insurance recoveries received. b Sunwater has provided actuals for 2023–24 and a proposed uplift of $1.7 million pre-overhead costs for dam safety management for 2025–26 since our draft report.
Notes: 1. Figures in this table include costs allocated to irrigation and non-irrigation customers in regulated schemes.
2. Totals may not add due to rounding.
Source: Sunwater, sub. 9 and sub. 85, p. 71; Sunwater, response to RFIs 3 and 26 (post-draft); QCA analysis.

5.1 Our assessment approach

Our approach involved:

[192] We have reviewed the costs related to Sunwater's billing system renewal as part of our assessment of an appropriate allowance for opex (section 4.4.1), consistent with Sunwater's treatment of opex and capex related to other non-infrastructure assets.

[193] Sunwater has not proposed any capex associated with the augmentation of existing assets or new assets, so our review in this chapter is only of renewals expenditure.

- 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 the expenditure is prudent if it can be justified by reference to an identified need or cost driver. That is, the expenditure 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 the expenditure 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 allowed expenditure in the 2020 review. Given that actual expenditure since the 2020 review is higher than allowed 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. Expenditure relating to extreme weather events should be separately identified in historical renewals including any related insurance revenues.

For forecast 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 alternate estimate.

Materiality

We have formed a view on prudency and efficiency based on the overall expenditure 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 said that Sunwater should improve its predictive maintenance and asset condition reporting arrangements to better inform the timing of asset replacement[194] as:

- asset life expectancies for long-term renewals did not appear to be based on the failure history for the relevant asset classes. Rather, Sunwater used a single equation to project the timing of asset renewal for all its assets, resulting in overly conservative timing of long-term renewals[195]
- the application of proposed 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.[196]

194 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 60.
195 AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, chapter 7.
196 AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, pp. 70–71.

In addition, we said that Sunwater should 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[197] as:

- for most of the projects in the price path period 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[198]
- 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.[199] In addition, projects needed to be manually classified as replacement, refurbishment or inspection.[200]

Sunwater acknowledged these limitations in its proposal. It specifically noted our finding from the 2020 review to improve its:

- predictive maintenance and asset condition reporting (including developing asset-class-specific decay curves) to better inform the timing of asset replacement
- cost estimation processes to ensure that asset replacement values represent current market replacement values.[201]

Sunwater said that it had addressed this finding 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[202] 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.[203] These adjustments amounted 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.[204] 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.[205]

We accept that 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.

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197 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 60.
198 AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, p. 71.
199 AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, p. 72.
200 AECOM, *Rural Irrigation Capital Expenditure Review – Sunwater*, January 2020, p. 85.
201 Sunwater, sub. 9, p. 87.
202 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.
203 Sunwater, unpublished information in support of sub. 9.
204 Sunwater, sub. 9, p. 88.
205 Sunwater, unpublished information in support of sub. 9.

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). We have also identified potential improvements in Sunwater's procurement processes (section 5.2.2).

5.2.1 Asset planning and management

Sunwater's renewals program consists of asset refurbishment, and enhancement or replacement works that are 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 has relatively 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.[206] 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.[207] 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.[208]

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.[209] 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.

AtkinsRéalis also reviewed the appropriateness of Sunwater's proposed asset lives. AtkinsRéalis found that there were a number of different sources where asset life information was stored and there were discrepancies between those sources. Asset lives could also differ significantly between locations for the same asset type, and some asset lives differed significantly from expectations, because they appeared to be set to the life of the asset site or parent asset. For example, power and lighting at a dam site was set to the asset life of the dam (i.e. 100 years) rather than the asset life of other power and lighting assets (i.e. 17 years).[210]

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

206 Sunwater, sub. 16, p. 20.
207 Sunwater, unpublished information in support of sub. 9.
208 Sunwater, unpublished information in support of sub. 9.
209 AtkinsRéalis, Sunwater report, June 2024, p. 28.
210 AtkinsRéalis, Sunwater supplementary report, January 2025, p. 66.

- **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 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.

5.2.2 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.[211]

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.[212]

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 current price path period.[213]

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.[214]

Sunwater said that as a result, it overspent the allowance from the 2020 review (Table 19).

[211] AtkinsRéalis, Sunwater report, June 2024, pp. 35–36.
[212] AtkinsRéalis, Sunwater report, June 2024, pp. 35–36.
[213] Sunwater, sub. 9, p. 92.
[214] Sunwater, sub. 9, p. 92.

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

	2019–20	2020–21	2021–22	2022–23	2023–24[a]	2024–25 (forecast)	Total
QCA 2020 review	**24.3**	**25.1**	**12.0**	**12.2**	**10.3**	**16.2**	**100.1**
Sunwater revised	23.1	30.7	35.9	33.4	35.0	35.0	**193.0**
Insurance recoveries	(7.2)	–	(8.0)	(15.2)	–	–	**(30.4)**
Sunwater – net	**15.8**	**30.7**	**27.9**	**18.2**	**35.0**	**35.0**	**162.6**
Difference	**(8.5)**	**5.6**	**15.9**	**6.0**	**24.7**	**18.8**	**62.5**

a Sunwater has provided actuals for 2023–24 since our draft report.
Notes: 1. The 2020 review incorporated actual renewals expenditure up to and including 2018–19. We are therefore required to examine actual renewals from 2019–20 onwards to allow the annuity balance to be rolled forward from 1 July 2019 to 30 June 2025. 2. 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; Sunwater, response to RFI 3 (post-draft); 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 the allowance 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, mean 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 position on the prudent and efficient level of historical renewals is $155.5 million (Table 20). We have adjusted Sunwater's proposed expenditure to incorporate insurance proceeds in 2019–20[215] and to reduce overheads in 2024–25 consistent with those applied to the wider forecast renewals program (section 5.4.2).

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

	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25 (forecast)	Total
Sunwater – net	15.8	30.7	27.9	18.2	35.0	35.0	**162.6**
QCA adjustments	–	–	–	–	–	(7.0)	**(7.0)**
QCA position	**15.8**	**30.7**	**27.9**	**18.2**	**35.0**	**28.0**	**155.5**

Notes: 1. Net of insurance recoveries received. 2. Totals may not add due to rounding.
Source: Sunwater, supporting information accompanying sub. 9; Sunwater, response to RFI 3 (post-draft); QCA analysis.

While we have not made 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).

[215] 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, Sunwater report, June 2024, p. 181.

Table 22: Assessment of sampled historical projects

Project	AtkinsRéalis findings	QCA 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 what the materiality would have been of any savings that Sunwater would have made in this instance with better initial scoping. We have therefore not made any adjustment to the project. However, Sunwater should address the shortcomings we have identified 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 recommend any adjustment to the project but stated that Sunwater's scoping and risk assessment should have recognised the	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

Project	AtkinsRéalis findings	QCA assessment
	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.	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 what the materiality would have been of any savings that Sunwater would have made in this instance, with better initial scoping. We have therefore not made any adjustment to the project. However, Sunwater should address the shortcomings we have identified 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, Sunwater 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 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 price path period.

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,[216] 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.[217]

We found an overspend of $20.9 million, relative to the 2020 review allowance, for the projects with an allowance from the 2020 review. The overspend was primarily driven by scope increases relative to what was envisaged at the time of the 2020 review.[218]

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 insufficient materiality.

5.4 Forecast renewals expenditure

Our position on the prudent and efficient level of forecast renewals is $953.0 million (Table 23). We have made adjustments to reflect efficiencies we identified and to reduce the level of overheads applied.

Table 23: QCA position – forecast renewals expenditure ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	2029-58	Total
Sunwater revised	39.2	42.9	40.4	27.2	1,042.6	**1,192.3**
QCA adjustments	(7.1)	(7.8)	(7.5)	(5.4)	(211.5)	**(239.3)**
QCA position	**32.2**	**35.1**	**32.8**	**21.8**	**831.1**	**953.0**

Notes: 1. Sunwater has provided actuals for 2023–24 and a proposed uplift of $1.7 million pre-overhead costs for dam safety management for 2025–26 since our draft report. 2. Totals may not add due to rounding.
Source: Sunwater, supporting information accompanying sub. 9; QCA analysis.

5.4.1 Sample assessment

With the assistance of AtkinsRéalis, we selected a sample of forecast programs (Table 24) for assessment (Table 25).[219]

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

[216] Six of these projects were also included in our detailed sample review.
[217] Three of these projects were included in our detailed sample review.
[218] AtkinsRéalis, Sunwater report, June 2024, pp. 203–204.
[219] 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.

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	14.8[a]	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		**58.8**	**117.8**
Total program		**140.5**	**589.0**
Sample as a proportion of total program (%)		**42%**	**20%**

a Includes Sunwater's addendum of $1.7 million pre-overhead costs relating to its Dam Safety Management Plan.
Source: Sunwater, sub. 9 and sub. 85; Sunwater, 10 WMS data Renewals Final Values; Sunwater, response to RFI 26 (post-draft), p. 71; AtkinsRéalis, Sunwater report, June 2024, p. 182; QCA analysis.

Some stakeholders raised concerns about the cost of some of the programs in our sample, including the dam instrumentation program,[220] the dam safety management program,[221] the meter renewal program[222] and the switchboard and control renewal program.[223] Other stakeholders expressed concerns about the cost of SCADA[224] and the replacement and refurbishment costs for pump stations and pipeline valves.[225] While we have not made specific adjustments to these unsampled programs, we note that the relatively high costs of projects in these programs may be due to relatively high overhead and indirect costs allocated to renewals, as discussed in section 5.4.2.[226]

220 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.
221 Cotton Australia, sub. 48, p. 5; BRIA Irrigators, sub. 67, p. 5.
222 CHCGIA, sub. 47, p. 2 and sub. 71, p. 2; Cotton Australia, sub. 48, p. 5; Nogoa-Mackenzie IAC, sub. 57, p. 1; Hutchinson Ag, sub. 76, p. 1.
223 EICL, sub. 49, pp. 10–11 and sub. 74, p. 2.
224 Mallawa Irrigation, sub. 55, p. 1.
225 Cotton Australia, sub. 48, p. 5; B Nicholson, sub. 56, pp. 1–2; CHCGIA, sub. 71, p. 2; Pioneer Valley Water Co-operative, sub. 80, p. 2.
226 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). However, we note that the pre-overhead expenditure consists of dam safety management costs of only $750,000 of the overall expenditure. The remaining $450,000 relates to an overhead and indirect cost uplift of over 54%, with the uplift partly driven by the assumed labour cost component (section 5.4.2).

Table 25: QCA assessment of sampled forecast renewals projects

Project	AtkinsRéalis 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, including the additional costs in the addendum to the business case, to be prudent and efficient but recommended an adjustment to address duplication with the dam instrumentation program. This results in a $0.3 million (2023–24 dollars) 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 $7.9 million (2023–24 dollars) reduction to the program. In response to comments from Hutchinson AG, AtkinsRéalis found that Sunwater is appropriately selecting meters when performing upgrades.	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. In response to comments from EICL, AtkinsRéalis's view was that Sunwater's approach to implementing this program does not result in the duplication of costs.	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. We are satisfied that there is no duplication of work in relation to Sunwater's switchboard renewals program.
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, Sunwater report, June 2024, pp. 209–223, 236; AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 71–72; Sunwater, sub. 85, p. 71; Hutchinson Ag, sub. 76, p. 1; EICL, sub. 74, p. 2; 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.[227]

However, Sunwater explained that the renewals forecast for the 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 irrigators to explore a range of potential solutions to the issue of rising groundwater in parts of the scheme.[228] 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.[229]

Stakeholders in the Nogoa-Mackenzie scheme queried whether there is ongoing expenditure on Bedford Weir reconstruction and were concerned about the implications for the reliability of water access entitlements.[230]

The failure and subsequent removal of the Bedford Weir inflatable rubber dam resulted in a reduction in the storage capacity of the weir. Sunwater explained that it was granted funding[231] 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%.[232] However, this still exceeds the target performance objective for the WSI of 82%, under the water plan.

A stakeholder queried why irrigation customers should bear the cost of the removal of inflatable rubber dams.[233] 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 through the price target.

5.4.2 Wider renewals program

We 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 replacements and refurbishments. In the 2020 review, we said 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 replacements. To address this in the

227 BRIA Irrigators, sub. 42, p. 15.
228 Sunwater, response to RFI 153.
229 Sunwater, response to RFI 153.
230 Nogoa-Mackenzie IAC, sub. 57.
231 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.
232 Sunwater, response to RFI 154.
233 B Nicholson, sub. 56, p. 1.

2020 review, the allowed renewals forecast incorporated a uniform 10% increase in the life of all asset replacements based on advice from our consultants.[234]

For this review, Sunwater said that it had initiated a project in 2023 to develop asset- class-specific decay curves to inform future forecast development.[235] 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.[236] AtkinsRéalis found that assets that Sunwater had assigned an asset life of less than 30 years had an average actual age that tended to exceed the assumed asset life.[237]

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.[238]

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.[239]

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. Relevant to this, we have reviewed:

- the forecasting approach for the direct labour component of forecast renewals expenditure
- the cost recovery rate for overhead and indirect costs applied to forecast direct labour costs.

Direct labour share of forecast renewals expenditure

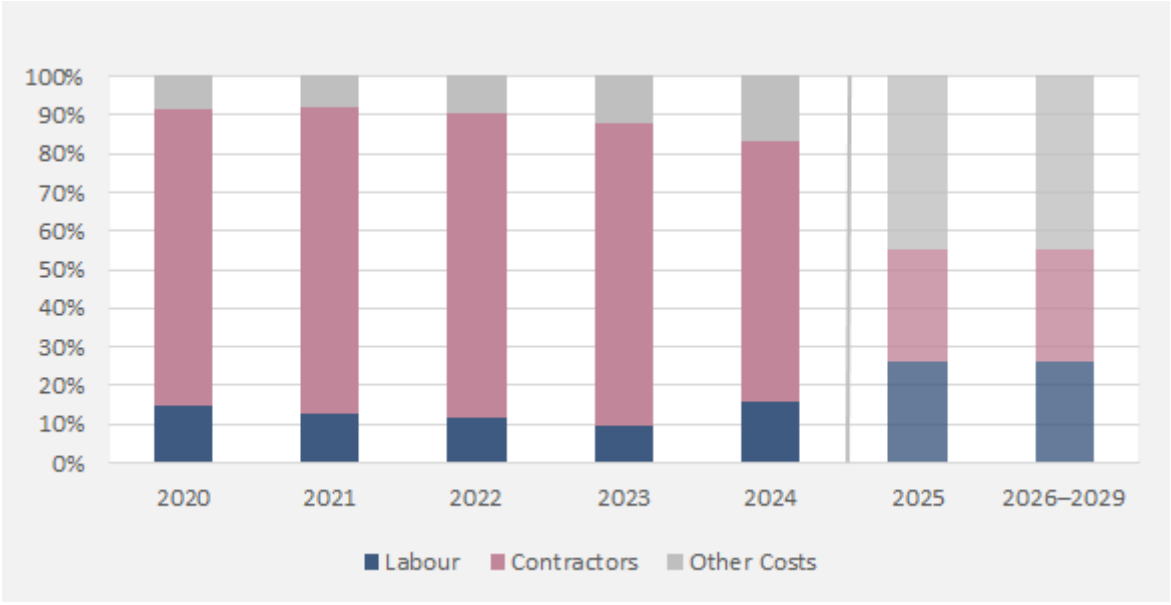
AtkinsRéalis noted that Sunwater's proposal applied a uniform cost allocation approach across all forecast years in disaggregating its forecast (pre-overhead) costs for each renewals project between labour, contractor, materials and plant costs. This allocated 26.3% of the pre-overhead renewals expenditure for each project to labour costs from 2024–25 to 2057–58.[240] Sunwater then applied recovery rates for overhead and indirect costs to direct labour costs derived on this basis.[241]

However, over the period 2019–20 to 2023–24, direct labour costs comprised between 10% and 16% of pre-overhead renewals expenditure each year, with an overall average of 12.8% over this period. Given the lack of strong justification for the higher direct labour cost percentage, AtkinsRéalis recommended that the historical average was a more appropriate proportion to derive

234 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, pp. 68–72.
235 Sunwater, sub. 9, p. 89.
236 AtkinsRéalis, Sunwater report, June 2024, pp. 223–225.
237 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, Sunwater report, June 2024, pp. 223–225.
238 This excludes the meter renewal program for which we have separately assessed an appropriate replacement timing in section 5.4.1.
239 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.
240 Sunwater explained that this percentage is based on historical labour costs for the renewal program. In response to our draft report, Sunwater revised this percentage to 23.4%.
241 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%).

the direct labour costs used to apportion overhead recovery rates.[242] Figure 15 compares direct labour share between actuals and forecasts, incorporating information for 2023–24 provided by Sunwater in response to our draft report.

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



Source: Sunwater, response to RFI 52; Sunwater, response to RFI 3 (post-draft); Sunwater, 10 WMS data Renewals Final Values; QCA analysis.

In response to our draft report, Sunwater said that our draft estimate of 12% for the direct labour percentage was driven by a small number of very large historical renewals projects with a relatively low share of direct labour in project expenditure. Sunwater said that the calculation of the direct labour percentage needed to consider project size, to not be inappropriately influenced by a small number of large projects with a small percentage of direct labour. Sunwater proposed estimating the historical direct labour percentage for four renewals project size groups and applying each percentage to the corresponding share of forecast renewals expenditure. Sunwater said this approach results in a direct labour percentage of 23.4% for forecast renewals (Table 26).[243]

Table 26: Sunwater's calculation of direct labour percentage by project size group (%)

	Small	Medium	Large	Very large	Total
Historical direct labour percentage (1)	44.4	10.7	3.4	3.0	**n.a.**
Value of forecast projects (2)	44.3	26.3	20.7	8.7	**100.0**
Weighted direct labour percentage – forecast (1) * (2)	**19.7**	**2.8**	**0.7**	**0.3**	**23.4**

Note: Sunwater grouped projects in the historical renewals program into small (less than $0.3 million in value), medium (between $0.3 million and $0.75 million in value), large (between $0.75 million and $1.5 million in value) and very large (more than $1.5 million in value) over the period from 2019–20 to 2023–24.
Source: Sunwater, response to RFI 3 (post-draft); QCA analysis.

We note, however, that Sunwater estimated the historical direct labour percentage for each project size group using a simple average of the direct labour percentages for individual projects within the group, treating all projects equally regardless of their value. This approach, for example, gives the

[242] AtkinsRéalis, Sunwater report, June 2024, pp. 225–227.
[243] Sunwater, sub. 85, p. 66.

same weight to the direct labour percentage of a $1,000 project as to that of a $250,000 project. We consider that a simple average does not account for variations in project size within each group and can be skewed by a disproportionate number of smaller projects with low or high percentages.[244]

Table 27 compares Sunwater's estimated simple average with an expenditure weighted average, confirming that direct labour percentages appear to vary by project size, with smaller projects typically having higher direct labour percentages. Overall, we consider that an expenditure weighted average approach would better reflect the relative size of each project within a group and ensure consistency with the overall historical direct labour percentage.[245]

Table 27: Historical direct labour percentage by project size – comparison of approaches (%)

	Small	Medium	Large	Very large
Simple average (Sunwater's sample)	44.4	10.7	3.4	3.0
Weighted average (Sunwater's sample)	22.1	10.3	3.1	2.6
Weighted average (all projects)[a]	20.3	11.5	3.7	1.6

a As noted by AtkinsRéalis, Sunwater's analysis excluded projects with zero and negative direct costs as well as 810 projects with direct costs greater than zero.
Note: Sunwater grouped projects in the historical renewals program into small (less than $0.3 million in value), medium (between $0.3 million and $0.75 million in value), large (between $0.75 million and $1.5 million in value) and very large (more than $1.5 million in value) over the period from 2019–20 to 2023–24.
Source: Sunwater, response to RFI 3 (post-draft); AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 45–48; QCA analysis.

We acknowledge that significant changes in the project size distribution between the historical and forecast renewals program could impact on the appropriate direct labour percentage to apply to the forecast renewals program. However, our analysis indicates no substantial difference between the historical and forecast project size distribution. Table 28 shows that there will be a lower proportion of small projects, which historically have the highest direct labour percentage, while the combined share of the two largest project categories, with similarly low direct labour percentages, is expected to remain stable.

Table 28: Share of total renewals expenditure by project size (%)

Renewals program	Small	Medium	Large	Very large	Total
Historical renewals program	52.4	19.5	8.9	19.2	**100.0**
Forecast renewals program	44.3	26.3	20.7	8.7	**100.0**

Note: Sunwater grouped projects into small (less than $0.3 million in value), medium (between $0.3 million and $0.75 million in value), large (between $0.75 million and $1.5 million in value) and very large (more than $1.5 million in value).
Source: Sunwater, response to RFI 3 (post-draft); QCA analysis.

Applying the forecast renewals program shares (Table 28) to the weighted average (all projects) direct labour percentages by project size (Table 27) derives an overall direct labour percentage of 12.9%. As our analysis shows no meaningful difference between historical and forecast project size distributions, this is not materially different from our updated overall average of 12.8%. Given the lack of material difference between these estimates and the arbitrary nature of the project size

[244] For example, around 62% of projects in the 'small' group have total expenditure of less than $10,000 with an average direct labour share of 57.5%, while the remaining 38% of higher value projects have an average direct labour share of 23.5%.

[245] In this respect, we note that applying Sunwater's simple average by project size to the corresponding share of historical renewals expenditure by project size would result in an overall historical direct labour percentage of 26.2%.

bands, which could produce different results if adjusted, we have maintained our draft report approach using the updated overall average of 12.8%.

Cost recovery rate for overhead and indirect costs

In response to our draft report, Sunwater said that our adjustment to the direct labour component of renewals should be factored into the calculation of the cost recovery rate for overhead and indirect costs, otherwise the reduction in overhead and indirect costs will be much greater than the 4.2%[246] inefficiency identified on the regulated opex side.[247] Sunwater presented a worked example demonstrating that our approach of changing the direct labour cost for renewals and the cost recovery rates had a cumulative impact of reducing their proposed overhead and indirect costs by more than the reduction we identified in our assessment of regulated opex.[248]

We note, however, that Sunwater's proposed overhead and indirect costs allocated to opex were based on its actual 2022–23 base year costs, with our revised downward adjustment of 2.8% referencing this base level. In contrast, Sunwater's proposed overhead and indirect costs allocated to forecast renewals are primarily driven by its proposed direct labour percentage of 26.3% – well above the historical average of 12.8% – without evidence provided to support this increased percentage in the future. This elevated percentage leads to higher assumed direct labour costs, which in turn result in higher proposed overhead and indirect costs allocated to forecast renewals through a proposed cost recovery rate similar to the 2022–23 rate. As the allocations of overhead and indirect costs to renewals and opex are derived using different methods, the percentage reductions that we apply to each of them are not comparable.

Given that Sunwater has not provided justification for this significant increase in direct labour allocated to renewals (which subsequently drives the significant increase in overhead and indirect costs compared to actuals),[249] we do not consider it appropriate to adjust the cost recovery rates for changes to this estimate. Rather than making significant upward increases in the cost recovery rates that have not been justified, we consider it more appropriate to review any material differences between efficient actual and forecast renewals expenditure as part of any ex post review process.

We note that AtkinsRéalis based its recommended cost recovery rates for overhead and indirect costs on actual rather than forecast costs because:

- this aligns with the approach used for allocating overhead and indirect costs to opex, where actual costs are used as part of our base-step-trend assessment approach
- significant changes in cost recovery rates for regulated scheme costs from the 2022–23 base year would require robust justification
- there is significant year-on-year variability in forecast overhead and indirect costs that is not cost reflective for regulated schemes, particularly to the extent they are driven by non-regulated activities.[250]

We focused on 2022–23 regulated opex to determine the cost recovery rates because:

- Sunwater's growth in non-regulated activities has impacted total indirect and overhead costs

246 Note that the downward adjustment of 4.2% in our draft report incorporated our reallocation of CASPr build costs from renewals to overhead and indirect costs. This downward adjustment has been revised to 2.8% in this report, when calculated on an equivalent basis by incorporating the reallocation of CASPr build costs from renewals to overhead and indirect costs (see sections 4.3.2 and 4.4.1).

247 Sunwater, sub. 85, p. 67.

248 Sunwater, sub. 85, pp. 68–70.

249 In real terms, this results in Sunwater's proposed overhead and indirect costs allocated to renewals over the upcoming price path period being around 57% higher than was recovered over the current price path period from 2020–21 to 2023–24, despite pre-overhead renewals being around 23% lower.

250 AtkinsRéalis, Sunwater supplementary report, January 2025, p. 52.

- direct labour and its percentage of renewals can vary significantly each year, making it difficult to establish a representative base year, whereas opex typically experiences less variation, making it easier to determine a representative base year.

Therefore, we have continued to estimate the cost recovery rates for overhead and indirect costs based on our adjustments to the prudent and efficient level of overhead and indirect costs in regulated opex for the 2022–23 base year as set out in section 4.3.2.

Conclusion

We note that the assumed labour percentages of forecast renewals expenditure are also significantly higher than the corresponding 15% used 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 $211.8 million (or 17.8%) in the total forecast renewals program.

5.4.3 Potential efficiencies from improvements in asset planning and management

Given the issues identified 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. We have previously recommended improvements in this area.

In our draft report, we identified actions that Sunwater could undertake to achieve potential efficiencies in the renewals program and asked Sunwater to develop a workable and quantified plan for realising these efficiencies. Given the potential efficiencies from implementing these initiatives,[251] we stated that we might apply an efficiency target if Sunwater did not present a workable and quantified efficiency plan. Canegrowers supported this approach proposing that we set 'stretch' efficiency targets to implement incentives for Sunwater to deliver the outlined improvements.[252]

Sunwater stated that it did not consider an efficiency target to be warranted as:

- we found its actual and forecast expenditure to be prudent and efficient
- the issue of 'planner's drop' identified by AtkinsRéalis, whereby there is a significant drop in forecast renewals after the price path period, suggested outturn costs will be higher than proposed by Sunwater
- it has developed an Asset Portfolio Uplift Program (APUP) that represents a significant long-term investment in improving the accuracy and maturity of asset forecasts and delivery processes
- renewals expenditure will be subject to an ex post review, with the most likely outcome being that the efficiency target will be unwound when actual expenditure is found to exceed forecast allowances and assessed as prudent and efficient.[253]

In addition, Sunwater said it was difficult for it to respond to our suggestion that we may apply an efficiency target, as the level of efficiency target that we may apply is not clear.[254]

While we did not apply efficiency adjustments in the historical renewals projects that we reviewed, our review indicated various issues in asset planning and management that we consider will lead to

[251] AtkinsRéalis, Sunwater report, June 2024, pp. 231–233.
[252] Canegrowers, sub. 68, p. 2.
[253] Sunwater, sub. 85, pp. 72–73.
[254] Sunwater, sub. 85, p. 73.

efficiencies in the renewals program once addressed. Further, our review found some scope for efficiencies in the forecast renewals program, particularly around the timing of asset refurbishment and replacement.

However, we accept that current deficiencies in Sunwater's approach to planning and forecasting the longer-term renewals program mean that applying an efficiency target beyond the price path period may result in a cost estimate that is lower than the required expenditure for the program.

Therefore, we have not applied an efficiency target to the renewals program. However, we maintain our view that Sunwater should develop an efficiency plan during the upcoming price path period, in consultation with customers, to ensure a structured approach to addressing the issues we have identified with its asset planning and management and a better appreciation of the potential efficiencies from this process. In this respect, we consider that it is a superior approach to commence a credible program that sets out a pathway to reveal efficient costs over the price path period, including an ongoing process to identify and implement spend-to-save initiatives, than to impose an efficiency target.

We consider that the APUP represents a positive step in this direction. However, we note that after seeking and reviewing further information on Sunwater's delivery plan for the APUP, AtkinsRéalis advised that substantial gaps remain between the actions we identified in the draft report and those that Sunwater has completed or planned for in the APUP.[255] In particular, AtkinsRéalis noted the following:

- **Asset condition and risk understanding**: while some of the activities that Sunwater has planned for, such as more routine condition assessments, will lead to improvements in this area, Sunwater should ensure that asset health reporting informs optimisation of renewals and maintenance activities.
- **Evidence-based asset lives**: while Sunwater's proposed activities are likely to help with the creation of specific asset plans, they do not address the need to develop evidence-based asset lives. Developing evidence-based asset lives is likely to require an analysis of asset age, maintenance, performance and condition data.
- **Cost estimation and control**: Sunwater should develop cost estimation tools and methods with a feedback mechanism that allows for continuous improvement. This will involve monitoring the accuracy of cost estimates and identifying ways in which estimates can be improved. Sunwater should also ensure ongoing reprioritisation of works at a portfolio level by building on the PCM governance in the APUP, to bring together asset management, expenditure and benefits data to enable structured prioritisation.[256]

As discussed in section 5.4.5, we consider that any ex post review process for the next review should require Sunwater to clearly identify the drivers of any overspend in the renewals program. For the next review, Sunwater should explain offsetting efficiencies from improvements in its asset planning and management, consistent with the efficiency plan, as part of any ex post review process.

[255] AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 69–72.
[256] AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 70–71.

Finding 2: Develop an efficiency plan for the renewals program

Sunwater should develop an efficiency plan for the renewals program during the price path period, in consultation with customers. The plan should:

- set out a structured process to implement initiatives to improve asset planning and management and enhance evidence-based decision-making
- include an ongoing process to identify and implement spend-to-save investment initiatives and efficient working practice changes
- identify savings to be realised from this process.

5.4.4 Summary of adjustments

Based on our review, we have developed an alternative cost estimate of the forecast renewals program (Table 29). We have adopted this estimate as we consider it is materially different from Sunwater's proposal.

Table 29: QCA position – adjustments to the forecast renewals program ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	2029-58	Total
Sunwater revised	**39.2**	**42.9**	**40.4**	**27.2**	**1,042.6**	**1,192.3**
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	(6.3)	(7.5)	(7.0)	(4.9)	(186.2)	**(211.8)**
Other adjustments	(0.3)	0.2	0.4	–	0.6	**0.8**
Total adjustments	**(7.1)**	**(7.8)**	**(7.5)**	**(5.4)**	**(211.5)**	**(239.3)**
QCA alternative estimate	**32.2**	**35.1**	**32.8**	**21.8**	**831.1**	**953.0**

Notes: 1. Other adjustments incorporate the use of updated overhead and indirect cost uplift factors (discussed in section 4.3.2) and updates to consumer price index (CPI) inflation forecasts based on the latest information. 2. Totals may not add due to rounding.
Source: Sunwater, sub. 9; Sunwater, response to RFIs 3 and 26 (post-draft); AtkinsRéalis, Sunwater report, June 2024, 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, we consider that Sunwater should improve its information reporting to strengthen the effectiveness of future ex post review processes (Finding 3).

Finding 3: Improve information reporting to strengthen the effectiveness of ex post reviews

For future reviews, to support the ex post review of renewals expenditure and non-renewals capex, Sunwater should:

- review its coding of renewals expenditure and non-renewals 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 allowed expenditure to stakeholders and in its 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 extent of 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).[257]

Sunwater's proposal used short-term Reserve Bank of Australia (RBA) forecasts of consumer price index (CPI) inflation for 2023–24 and 2024–25,[258] 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.[259] 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 have updated Sunwater's annual forecast CPI inflation for 2024–25 and 2025–26 using the latest RBA data.[260] Consistent with the approach in our 2021 inflation report,[261] we have applied a linear glide path from the first year ahead (2025–26) and referred to the December 2026 ending forecast in the second year ahead (2026–27) when determining the anchor point of 2.5% in 2029–30.

Table 30 compares the inflation forecasts in Sunwater's proposal with our updated forecasts.

Table 30: QCA position – CPI inflation forecasts (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Sunwater proposal	3.60	3.10	2.98	2.87	2.75	2.50
QCA position	3.81[a]	2.50	3.10	2.95	2.80	2.65

a This reflects actual year-ended CPI inflation for Australia as at June 2024.
Source: Sunwater, sub. 9, p. 36; Australian Bureau of Statistics, *Consumer Price Index, Australia*, September Quarter 2024, 'Tables 1 and 2, CPI: All Groups, Index Numbers and Percentage Changes', accessed 16 January 2025; RBA, *Statement on Monetary Policy*, November 2024, p. 55; 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.

257 QCA, *Inflation forecasting*, final position paper, October 2021.
258 At the time of Sunwater's proposal, RBA short-term forecasts of CPI were only available for 2023–24 and 2024–25.
259 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%.
260 RBA, *Statement on Monetary Policy*, November 2024, p. 55.
261 QCA, *Inflation forecasting*, final position paper, October 2021, p. 41.

- Smoothing unit costs to derive price targets and 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.[262] 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 explain in Chapter 7 that we consider that Sunwater needs to do further work before transitioning to the RAB approach.

We have accepted Sunwater's proposed inflation measures for the renewals expenditure allowance under the annuity approach, subject to updating for the latest annual CPI inflation forecast data (Table 31).

Table 31: QCA position – inflation measures (%)

Use	Basis for inflation factor	Sunwater proposal	QCA position
Renewals expenditure allowance			
Annuity approach	Geometric mean of the annual CPI inflation forecasts over a 10-year period for consistency with the 2021 inflation report	2.60	2.65

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),[263] 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
- 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.[264]

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

[262] 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 and sub. 74, pp. 1–2; Nogoa-Mackenzie IAC, sub. 57, p. 1; BRIA Irrigators, sub. 42, pp.11–14.

[263] 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.

[264] Sunwater, sub. 9, p. 38.

are broadly consistent with the Queensland Treasury WPI latest estimates of 4.75% for 2023–24 and 3.75% for 2024–25.[265]

We have not made any adjustment for the 2025–26 forecast, which remains at 3.5% based on the latest State Budget WPI forecasts. Additionally, we have adopted the most recent State Budget WPI forecasts of 3.25% and 3.00% for 2026–27 and 2027–28, respectively,[266] 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 and 2023–24 actual WPIs resulting in a rate of 2.49% for the remaining period, consistent with our stated approach in the 2021 inflation report (Table 32).

Table 32: QCA position – labour cost escalation rates (%)

	2023–24	2024–25	2025–26	2026–27	2027–28	2028–29
Sunwater proposal	4.50	3.50	3.50	2.98	2.47	2.47
QCA position	4.50	3.50	3.50	3.25	3.00	2.49

Source: Sunwater, sub. 9, p. 38; Queensland Government, *Budget Strategy and Outlook – State Budget 2024–25*, June 2024; ABS, *Wage Price Index, Australia*, 'All WPI Series: original (financial year index numbers for year ended June quarter)', 2024, accessed 16 January 2025; 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.[267] Other stakeholders focused on Sunwater's procurement procedures leading to a high base year estimate. Such concerns are evaluated in Chapter 4. However, we have now reviewed actual rates and the latest forecasts for 2024–25, which have informed our current assessment.

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.[268] Sunwater said that insurers generally accept asset revaluations every five years and the use of the 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%.[269] Sunwater has also provided us with an estimate of escalation of the 2024–25 insurance costs of –14.4%. Sunwater said that this reduction reflects a restructuring and re-marketing of its liability insurance program, alongside improved market conditions and the resolution of a legacy dispute that expanded the pool of competing insurers.[270]

265 Queensland Government, *Budget Strategy and Outlook – State Budget 2024–25*, June 2024, p. 4.
266 Queensland Government, *Budget Strategy and Outlook – State Budget 2024–25*, June 2024, p. 4.
267 CHCGIA, sub. 47, p. 2; Cotton Australia, sub. 48, p. 6; Fairbairn Irrigation Network, sub. 50, p. 6.
268 Sunwater, sub. 12, p. 10.
269 Sunwater, response to RFIs 35 and 108.
270 Sunwater, response to RFI 24 (post-draft).

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

Table 33: QCA position – insurance escalation rates (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Sunwater proposed	21.00	10.73	2.98	2.87	2.75	2.50
Sunwater revised[a]	**10.89**	**(14.38)**	**3.10**	**2.95**	**2.80**	**2.65**
QCA position	**10.89**	**(14.38)**	**3.10**	**2.95**	**2.80**	**2.65**

a Sunwater provided updated estimates of insurance cost increases in 2023–24 and 2024–25, with outer years updated in line with the general CPI inflation forecast.
Source: Sunwater, sub. 12, pp. 9–12; Sunwater, response to RFIs 35, 36 and 24 (post-draft); RBA, *Statement on Monetary Policy*, November 2024; QCA analysis.

Electricity

Sunwater's proposed approach uses contracted rates where available, with annual CPI inflation used thereafter.[271] 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.[272]

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, as explained in section 6.1.

Table 34: QCA position – electricity escalation rates for schemes with regulated tariff 20 (%)

	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Sunwater proposal	26.80	3.10	2.98	2.87	2.75	2.50
QCA position	26.80	(1.10)	3.10	2.95	2.80	2.65

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.[273] For the remaining years, the escalation rates reflect annual CPI inflation forecasts.

271 Sunwater, sub. 12, p. 4.
272 Sunwater, response to RFIs 136 and 22 (post-draft).
273 Sunwater, response to RFIs 136 and 22 (post-draft).

Table 35: QCA position – 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)	3.10	2.95	2.80	2.65
Upper Burnett	26.84	(0.97)	3.10	2.95	2.80	2.65

Source: Sunwater, sub. 15, p. 12; Sunwater, response to RFI 22 (post-draft); 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.[274] Prior to the draft report, Sunwater completed a review of its retail electricity tariff arrangements and identified opportunities to reassign some of its connection sites to different electricity tariffs with forecast cost savings.[275]

Since the draft report, Sunwater has updated its proposed electricity cost escalators for 2024–25 to 2028–29. The key update is the inclusion of final 2024–25 network charges, as well as updated network prices for 2025–26 to 2028–29, which are passed through to Sunwater under the market contract.[276] We have accepted these updated escalators (Table 36).

Table 36: QCA position – 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	13.04	3.10	2.95	2.80	2.65
Bowen Broken	16.00	3.69	3.10	2.95	2.80	2.65
Bundaberg distribution	0.69	4.94	3.93	4.23	4.61	3.87
Burdekin-Haughton distribution	2.29	3.82	3.15	3.60	3.97	3.44
Dawson Valley	0.34	15.44	3.10	2.95	2.80	2.65
Eton	2.05	0.28	4.11	4.18	4.53	3.61
Lower Mary distribution	–	(5.75)	4.40	4.47	4.79	3.80
Mareeba-Dimbulah distribution (re-lift)	–	3.06	3.67	3.87	3.99	3.84
Upper Condamine	16.10	4.63	3.10	2.95	2.80	2.65

Source: Sunwater, sub. 15, p. 12; Sunwater, response to RFI 22 (post-draft); QCA analysis.

We have reviewed the modelling undertaken by Sunwater and find its approach 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.

274 Sunwater, sub. 15, p. 3.
275 Sunwater, response to RFIs 41 and 132.
276 Sunwater, response to RFI 22 (post-draft). The updated network prices reflect the 2024–25 network prices approved by the AER and the 2025–26 to 2028–29 network prices in the AER's draft decision for Ergon Energy's 2025–30 revenue proposal in September 2024.

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 37).

Table 37: 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 position on cost escalation factors for overhead and indirect costs is summarised in Table 38 below.

Table 38: QCA position – 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	3.25	3.00	2.49
Non-labour (CPI)	3.81	2.50	3.10	2.95	2.80	2.65
Overhead and indirect costs (50:50)	4.16	3.00	3.30	3.10	2.90	2.57

6.2.3 Smoothing unit costs

Sunwater has proposed using a geometric mean of the annual CPI inflation forecasts over the 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% (Table 39).[277]

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

Table 39: Sunwater's proposed WACC parameters

Parameter	Sunwater 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%**

Note: The risk-free rate and cost of debt in this table relate to Sunwater's initial proposal and were only placeholder values. Sunwater proposed they be updated using more recent data.
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 return (rate of return review).[278] 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), the WACC should reflect the borrowing rate from QTC.[279] 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.[280] BRIA Irrigators submitted that irrigators do not have the capacity to pay above efficient lower bound water charges that do not include a rate of return.[281] Canegrowers submitted that because the government has committed to ensure lower bound pricing principles apply, this requires no profit margin or return on investment on price.[282]

Pioneer Valley Water Co-operative Limited had concerns about the calculation of the WACC and said that Sunwater should be operating on a zero rate of return.[283] QFF raised concerns about the calculation of the WACC and the differences between the actual and projected figures.[284]

The definition of allowable costs in the referral does not preclude Sunwater from earning a commercial rate of return.[285] 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

278 QCA, *Rate of return review*, final report, version 4, September 2024.
279 Sunwater, sub. 43, p. 2; Cotton Australia, sub. 48, p. 4 and sub. 72, p. 5; Queensland Farmers' Federation, sub. 59, p. 5 and sub. 83, p. 6; Canegrowers, sub. 69, p. 2.
280 EICL, sub. 49, p. 13.
281 BRIA Irrigators, sub. 67, p. 3.
282 Canegrowers, sub. 69, p. 2.
283 Pioneer Valley Water Co-operative, sub. 80, p. 1.
284 Queensland Farmers' Federation, sub. 83, p. 6.
285 However, there is no return on assets built before 1 July 2000.

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.

We benchmark the regulated business against other businesses with similar risks to determine a reasonable rate of return. The potential for a regulated entity to achieve an actual return that is higher or lower than the rate of return we set will depend on the entity being able to outperform or underperform relative to the benchmark. However, we do not consider that historical performance is directly relevant in setting the benchmark rate of return for Sunwater.

Our view is that Sunwater's proposed WACC, when updated for more recent data for the risk-free rate and cost of debt, is reasonable and provides a return on investment commensurate with the regulatory and commercial risks involved.

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.[286]

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 that the risk-free rate be calculated using the 40 business days to 29 November 2024.[287] Given the delivery of this report to the government by 31 January 2025, this represents an averaging period that is close to the start of the price path period as feasible.

Taking the average yield of 10-year Australian government bonds over the 40-business day period to 29 November 2024, we have estimated a risk-free rate of 4.48%.

[286] Sunwater, sub. 17, pp. 9–14.
[287] Sunwater, response to RFI 146.

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%.[288]

As set out in our rate of return review, we consider that it is reasonable to estimate the MRP using the Ibbotson approach. Under this approach, our estimate of the MRP, 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.[289]

Our view is that Sunwater's risk profile has not changed materially since the 2020 review where we assigned Sunwater a BBB credit rating. As such, we consider that a BBB credit rating should continue to be used.

Cost of debt

Sunwater has proposed a cost of debt estimated using a 10-year trailing average and a benchmark term of debt of 10 years.[290] Preferring an average period as close to the start of the price path period as possible, Sunwater nominated using a 12-month period to November 2024 to estimate the cost of debt.[291]

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 using 10 yearly cost of debt estimates that each use a 12-month averaging period to November of the respective year. This results in Sunwater's trailing average cost of debt using data stretching from December 2014 to November 2024.

Our estimate of Sunwater's BBB trailing average cost of debt over this period is 4.97%. Our trailing average cost of debt estimate reflects an update to our rate of return review report made in September 2024 to correct our method for extrapolating the cost of debt to a 10-year term.[292]

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.[293]

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288 Sunwater, sub. 17, p. 15.
289 Sunwater, sub. 17, pp. 6–7.
290 Sunwater, sub. 17, pp. 7–8.
291 Sunwater, response to RFI 147.
292 More information on this update is available in our rate of return review. See QCA, *Rate of return review*, final report, version 4, September 2024.
293 Sunwater, sub. 17, p. 6.

Our view is that gearing set at 60% debt is appropriate. 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.[294] This is consistent with our estimate of gamma in our rate of return review.

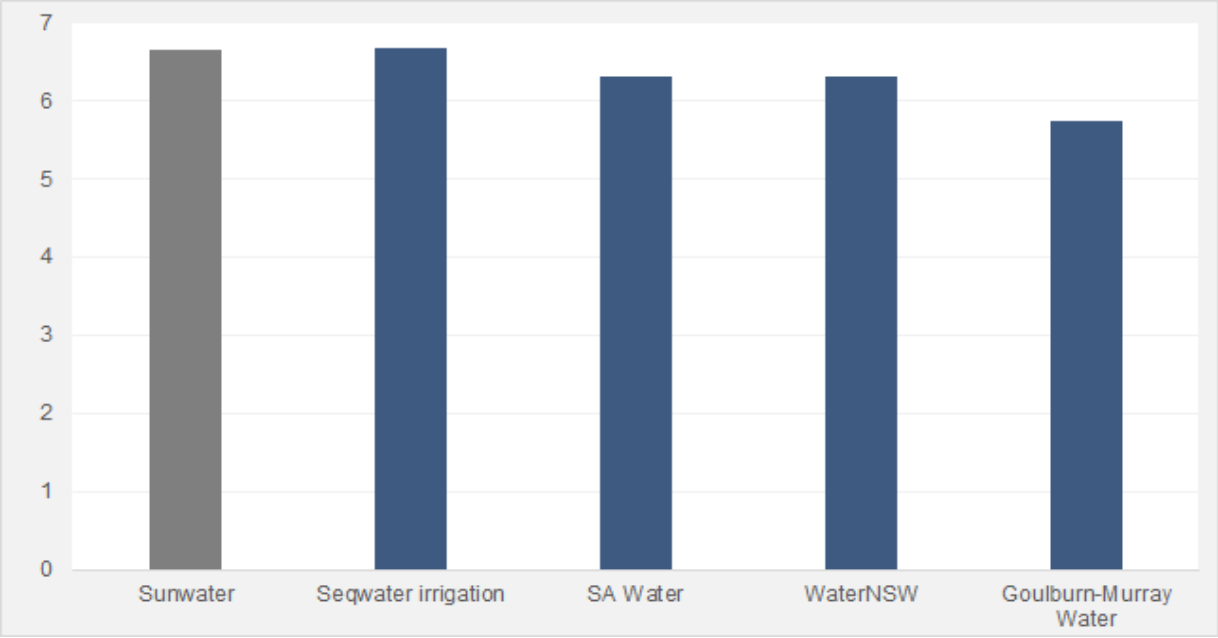
6.3.3 Normalisation and top-down assessment

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 used a March 2024 averaging period to compare regulatory rates of return. 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 at 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.

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



Source: Sunwater, sub. 9; Seqwater, sub. 1; ESCOSA, *SA Water Regulatory Determination 2024*, final determination: statement of reasons, June 2024, pp. 319–330; ESC, *Goulburn-Murray Water final decision*, 2024 Water Price Review, June 2024, pp. 25–27; IPART, *WACC calculator*, spreadsheet, August 2024.

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

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 our 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.

Although we have updated our 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. For this review, we have adopted a WACC of 6.66%.[295]

[295] The change to Sunwater's proposed WACC reflects the updating of the risk-free rate and cost of debt parameters.

7 Total allowable costs

In this chapter, we set out our position on the total allowable costs for regulated schemes. To determine total allowable costs, we add together the opex allowance, renewals expenditure allowance and tax allowance, 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 (section 6.3)
- tax – an allowance for tax as part of total costs, which is consistent with our post-tax nominal approach to the weighted average cost of capital (WACC) (section 7.5).

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

Based on our position on each of these components, our position on total allowable costs is provided in Table 40.

Table 40: QCA position – total allowable costs ($ million, nominal)

Cost component	2025-26	2026-27	2027-28	2028-29	Total
Sunwater revised[a]					
Total allowable costs – annuity approach	112.4	115.0	117.8	120.5	**465.7**
QCA position					
Opex[b]	79.3	81.7	84.1	86.2	**331.3**
Renewals allowance	24.4	25.0	25.6	26.2	**101.2**
Tax allowance	–	–	–	–	**-**
Revenue offset	(1.8)	(1.9)	(1.9)	(2.0)	**(7.6)**
Total allowable costs	**101.9**	**104.8**	**107.8**	**110.5**	**424.9**
Difference	**(10.5)**	**(10.2)**	**(10.1)**	**(10.0)**	**(40.8)**

a This includes updates provided by Sunwater for insurance, electricity and review event adjustments, as well as actual 2023–24 renewals expenditure, a revised proposal for its customer and stakeholder project (CASPr) and an addendum for dam safety management costs, since its November 2023 proposal. b Includes QCA fee and review events adjustment.
Notes: 1. Figures in this table include costs allocated to irrigation and non-irrigation customers in regulated schemes. 2. Totals may not add due to rounding.
Source: Sunwater, sub. 9, pp. 126–127; Sunwater, sub. 85; Sunwater, response to RFIs 3, 22, 23, 24 and 26 (post-draft); 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 regulatory asset base (RAB) approach for funding the irrigators' share of asset renewal costs.[296] The covering letter to the referral included a statement that the (then) minister for water advised 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 our consideration as part of this review.[297]

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.[298]

Some stakeholders supported an immediate transition to the RAB approach[299] while others considered that further work was required in designing an appropriate RAB approach[300] or lacked confidence that a RAB approach would lead to better outcomes.[301]

In response to the issues we raised in the draft report, Sunwater significantly amended aspects of its initial proposal, primarily in relation to its approach to capitalising renewals expenditure and recovering negative annuity balances.[302]

7.2.1 RAB approach and renewals annuity approach

The renewals annuity approach and the RAB approach are different ways of funding the 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).[303] In some instances, revenue from prices (and the government's CSO payments) will pre-fund renewals expenditure through the build-

296 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 83.
297 C Dick (Treasurer and Minister for Trade and Investment), *covering letter to the referral notice to the QCA*, 10 March 2023.
298 Sunwater, sub. 9, p. 47.
299 Hutchinson Ag, sub. 76, p. 1; Mallawa Irrigation, sub. 79, p. 1.
300 BRIG, sub. 66, p. 1; Central Downs Irrigators, sub. 70, p. 1; CHCGIA, sub. 71, p. 1; Eton Irrigation Cooperative Ltd (EICL), sub. 74, p. 2; qldwater, sub. 81, p. 2; Theodore Water, sub. 87, p. 1.
301 BRIA Irrigators, sub. 67, p. 2; Canegrowers, sub. 68, pp. 1–2; Cotton Australia, sub. 72, pp. 4–5; Pioneer Valley Water Co-operative, sub. 80, p. 2; QFF, sub. 83, pp. 4, 6.
302 Sunwater, sub. 85, pp. 82–91.
303 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.

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 price path 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 expenditure 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.

Table 41 compares different features of the RAB and renewals annuity approaches.

Table 41: 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.[a]	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 renewals expenditure 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.

a In practice there may be a small amount of pre-financing, because we smooth allowable costs over the price path period to set each price target.
Note: This summary assumes that customers have reached the price target.

7.2.2 Assessment of the approaches

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

- be more efficient due to improved investment incentives, more cost-reflective pricing and more efficient risk allocation
- lead to improved allocation of costs to different customer cohorts over time, but there would be transitional impacts
- 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 reprioritise expenditure and pursue least cost opportunities and respond to service improvements.[304] Sunwater said that the adoption of annuity funding effectively locks in a predefined outcome for service provision.

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 expenditure allowance not covering its actual financing costs.

There are weaker 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.

Canegrowers suggested that there would be incentives to overinvest to maximise the return on capital under a RAB approach through the WACC return.[305] Sunwater currently earns a WACC return on negative annuity balances. The WACC compensates a benchmark efficient firm for accepting the risks associated with providing the service (section 6.3). However, Sunwater would generally only have an incentive to overinvest if our estimated WACC exceeded the true WACC.

Cost-reflective pricing

Sunwater said that there would be greater alignment with the user pays principle under a RAB approach.[306] 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.

The RAB approach would smooth the recovery of the capex component of renewals expenditure over the life of the asset, which improves alignment with the user pays principle. However, achieving this benefit requires the appropriate classification of expenditure as opex or capex (see section 7.2.3 below), and would be improved by more robust data on asset lives (see section 5.2.1).

More cost-reflective pricing can signal to water customers the forward-looking cost of providing the irrigation service. If customers have reached the price target, a more cost-reflective price would

304 Sunwater, sub. 9, p. 49.
305 Canegrowers, sub. 43, p. 2.
306 Sunwater, sub. 9, p. 49.

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, which could have cash-flow implications for the business. Sunwater said that it understood the revenue implications and was comfortable that a shift to the RAB approach (and change to capitalisation as outlined in its response to our draft report) would be sustainable for the business.[307]

The annuity approach can result in some investments being pre-funded, but the RAB approach generally requires Sunwater to source finance to fund all investments upfront. As noted above, Sunwater would take on more financing risk under a RAB approach, because it will not recover the financing costs associated with the exclusion of any renewals expenditure that is deemed to be imprudent or inefficient. This is likely to result in a more efficient allocation of risk.

Under either approach, Sunwater could have an inappropriate preference for capex over opex due to the ability to recover capex overspend through the ex post review process. However, there is a clearer delineation between opex and capex under a RAB approach than in the current distinction between routine and non-routine costs,[308] 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.[309] Sunwater said that initially, the efficiency gain from moving away from the existing annuity approach would take the form of more robust forecasts of capex rather than a reduction in resourcing effort.[310] It said that over time this improved focus would likely lead to better scoping of works, 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 Sunwater having limited confidence in the cost and definition of projects beyond its five-year rolling plan.[311] 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.[312]

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. Regardless of the approach, we consider there is room for efficiencies in the renewals program if Sunwater implements our findings in section 5.4.3.[313]

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307 Sunwater, response to RFIs 127 and 19 (post-draft).

308 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.

309 Sunwater, sub. 9, p. 49.

310 Sunwater, response to RFI 128.

311 AtkinsRéalis, Sunwater report, June 2024, pp. 22–24.

312 AtkinsRéalis, Sunwater report, June 2024, p. 25.

313 Central Downs Irrigators (sub. 70, p. 1) considered that Sunwater needed to make significant improvements in its long-term renewals expenditure planning before the RAB approach was implemented. Cotton Australia (sub. 72, pp. 3–5) and QFF (sub. 83, pp. 4, 6) were also concerned that Sunwater's management and renewal of long-life assets would impact its ability to effectively adopt a RAB approach.

Broader impacts (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.[314] 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.[315]

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.

In the initial years of the RAB approach, the capital revenues for new 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 would provide some capital revenues for renewals expenditure since 1 July 2000 in the initial years. The transitional impacts associated with the recovery of negative annuity balances are discussed in section 7.2.3.

Sunwater said that the price target for most tariff groups would be lower under the RAB approach, placing downward pressure on the CSO payment the government provides to Sunwater to cover the shortfall in revenue recovery that occurs when the price is below the corresponding price target.[316] However, this effect is mainly driven by transitional issues such as the repayment of positive annuity balances in some schemes. We expect the downward impact on the CSO payment to partially reverse in the subsequent price path period, with minimal differences between the approaches in the longer term.[317]

Applying the pricing principles in the referral would also moderate price increases by establishing a gradual transition path to the price target.

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.[318]

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.[319]

Canegrowers was concerned that there would be reduced transparency under a RAB approach if the long-term capex forecast was no longer provided.[320] It was concerned that it would only see the current and perhaps subsequent price period as needed for the RAB approach and could lose sight of the long-term planning.

Regardless of the cost recovery approach, we would expect Sunwater to provide us with long-term renewals expenditure plans that show its supporting methodology and assumptions. This long-term planning should be developed through ongoing engagement with customers to ensure that plans

[314] BRIA Irrigators, sub. 42, p. 12; Bundaberg Regional Irrigators Group (BRIG), sub. 41, p. 2; Canegrowers, sub. 43, p. 2.
[315] BRIA Irrigators, sub. 42, p. 12; BRIG, sub. 41, p. 2; Canegrowers, sub. 43, p. 2.
[316] Sunwater, sub. 9, pp. 47, 142–143.
[317] Assuming prices are set according to the current pricing principles.
[318] QCA, *Statement of regulatory pricing principles for the water sector*, final statement, April 2021, pp. 23–24, 35.
[319] Sunwater, sub. 9, p. 49.
[320] Canegrowers, sub. 43, p. 2 and sub. 68, p. 2.

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 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).

7.2.3 Practical considerations

While the RAB approach has improved efficiency properties and aligns better with the user pays principle, we consider that Sunwater should undertake further work on some of the practical considerations of adopting and transitioning to a RAB approach. In particular, more work is required to ensure that expenditure is categorised appropriately and transitional impacts are assessed more comprehensively, in consultation with customers.

Appropriate categorisation of expenditure

In the 2020 review, we said that we expected Sunwater to undertake a comprehensive review of its renewals expenditure to identify appropriate opex and capex treatments, as these could significantly impact pricing under a RAB approach.[321] We reiterated this point in our draft report, noting that this should include a review of the treatment of large irregular costs that deliver benefits to customers over multiple years.[322] Sunwater has not yet undertaken the comprehensive review we expected.

In its initial proposal, Sunwater said that its forecast renewals expenditure was separated into opex and capex elements based on its existing capitalisation policy, and 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.

In the draft report, we said that this approach would lead to a large proportion of renewals expenditure being expensed. This would include expensing renewals expenditure that delivers benefits to customers over multiple years, which appears to differ from the standard practice of other water businesses and would lead to volatility in the price target between price path periods, due to lumpy renewals projects.[323]

In response to our draft report, Sunwater said that it had simplified its capitalisation approach for regulatory pricing, resulting in greater capitalisation of expenditure that provide benefits over multiple periods.[324] Sunwater provided:

- a new capitalisation guideline for regulatory pricing, which sought to address our concerns with its existing capitalisation policy
- a spreadsheet to demonstrate how the new guideline had been applied to categorise forecast expenditure over the price path period as opex or capex.

We consider that Sunwater's new capitalisation approach for regulatory pricing generally provides a more suitable basis for classifying expenditure under a RAB approach than Sunwater's existing capitalisation policy. However, as highlighted by AtkinsRéalis, there are several areas where the new

321 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 83.
322 QCA, *Rural irrigation price review 2025–29: Sunwater*, draft report, June 2024, p. 96.
323 QCA, *Rural irrigation price review 2025–29: Sunwater*, draft report, June 2024, pp. 86–87.
324 Sunwater, sub. 85, p. 87.

guideline could be improved, including providing clarity on the treatment of software as a service (SaaS) costs, providing clear direction on the treatment of the replacement of parts and major repairs and maintenance, and incorporating reporting requirements.[325]

We also assessed how Sunwater had applied the revised guideline to categorise expenditure over the price path period. AtkinsRéalis said that Sunwater's initial attempt at quantifying the impact of applying the new capitalisation approach for regulatory pricing was a preliminary effort. However, it did not consider that this initial analysis could be relied upon to apply the RAB approach because it had significant limitations, including:

- the approach was based on the application of a simple keyword search on project IDs, which provided different outcomes depending on the order of the word search. For instance, applying the 'capex' keywords first resulted in approximately 2% of expenditure being expensed, but applying the 'expense' keywords first resulted in approximately 16% of expenditure being expensed
- the link between the change in the capitalisation guideline and the keywords used was unclear
- the project IDs used for the keyword search are not available from business-as-usual processes but were manually produced by Sunwater's consultants for the forecast renewals expenditure program included in Sunwater's proposal.[326]

We have concerns about relying on this initial analysis to calculate RAB-based price targets given the potential data quality issues from using an Excel formula-driven keyword search applied to manually derived project IDs across more than 7,000 renewals projects over the price path period, instead of the more robust decision tree process in the new capitalisation guideline. We also note that this analysis has not been extended beyond the price path period, making it difficult for us to extend Sunwater's assessment of the pricing impacts of applying the new guideline over the longer term.

Before moving to a RAB approach, Sunwater should conduct an independent comprehensive review of the opex and capex treatment of renewals expenditure. This should result in a more robust classification of forecast renewals expenditure that can be used to determine the long-term financial impacts of the move and the impacts on price targets in the short term and long term (see the section on 'managing transitional impacts' below).

We also consider that Sunwater should develop an implementation plan to put a process in place to systematically classify costs that align with the definitions in the capitalisation guideline, as part of business-as-usual processes. We are concerned about the lack of planned reporting arrangements for this new capitalisation guideline and about the feasibility of implementing and managing expenditure classification under two different capitalisation guidelines, especially since the differences in cost treatment between the two guidelines are not readily apparent.

Approach to setting the initial RAB

In theory, the value of Sunwater's RAB at any given point in time should represent the real value of past capex net of depreciation and disposals. In the context of this review, the value of the asset base for existing rural irrigation assets (as at 1 July 2000) should not be considered when determining allowable costs.[327]

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325 AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 56–61.
326 AtkinsRéalis, Sunwater supplementary report, January 2025, pp. 61–64.
327 Referral, para. B(1.1)(a).

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
- for schemes with positive annuity balances on 30 June 2025 – zero, with the positive annuity balance returned through a reduction in the cost allowance, which is recovered through the price targets.[328]

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 approach to establishing the opening RAB for each scheme is reasonable.

Managing transitional impacts

In our draft report, we said that Sunwater should review the timeframes for recovering (or returning) the negative (or positive) annuity balances from (or to) customers[329] in its revised RAB proposal. We said we expected Sunwater to consult with customers, to ensure that its approach to managing the transitional impacts was informed by the outcomes sought by customers.

In relation to schemes with negative annuity balances, our draft report said that Sunwater should assess recovery periods to offset the short-term reduction in cash flows from capitalising a greater proportion of renewals expenditure. In response to our draft report, Sunwater proposed offsetting the short-term reduction in cash flows through shorter depreciation periods for negative annuity balances (generally set at 25 years rather than its initial proposal of 75 years).[330]

In developing this position, Sunwater said it modelled depreciation periods of 25, 30, 35, 40, 50 and 75 years for initial RABs, comparing RAB and annuity-based price targets and prices, while assessing the expected time for a tariff group to transition from current prices to the price target.[331] The analysis presented by Sunwater only included a high-level summary of the number of tariff groups with lower RAB-based 2025–26 fixed price targets compared to the existing 2024–25 prices (before discount) and compared to our draft 2025–26 annuity-based price targets.[332] This analysis, however, did not clearly explain why a 25-year period was chosen as the appropriate recovery period for most schemes.

We also said in our draft report that there may need to be different recovery periods (and modifications to depreciation profiles) to manage scheme-level differences in transitional impacts. Sunwater proposed modified periods for Lower Mary water supply scheme (40 years) and Cunnamulla water supply scheme (30 years) to reduce the difference between RAB and annuity-based price targets, while minimising the cash-flow impact on Sunwater.[333] This approach sought to maintain existing price targets in those schemes that had higher price targets when a 25-year period was applied. However, it is not clear why lower recovery periods (and potentially modifications to depreciation profiles) were not assessed for schemes that had lower price targets, as these schemes contribute to the overall short-term reduction in cash flows.

In relation to the treatment of positive annuity balances, options include:

328 Sunwater, sub. 9, pp. 114–116.
329 This assumes that customers have reached the price target.
330 Sunwater, sub. 85, pp. 76–79.
331 Sunwater, sub. 85, p. 89; Sunwater response to RFI 19 (post-draft).
332 Sunwater, sub. 85, p. 89
333 Sunwater, sub. 85, p. 89; Sunwater, response to RFI 19 (post-draft).

- returning the positive balance over time by gradually using the balance to reduce the cost allowance over a set period
- treating the balance as a capital contribution and offsetting future capex spend.

Sunwater proposed to return the positive balances over the four-year price path period through a reduction to the cost allowance, which is recovered through the price target.[334] This approach was supported by QFF, Cotton Australia and Theodore Water, although none of these stakeholders supported moving to a RAB approach at this time.[335] Sunwater said it would be open to considering alternative options if there was material customer support for a particular option, and it included other options in its submission to the draft report.[336]

Sunwater's proposed approach to the transition appears to rely on the position that more schemes would have a lower price target under its revised approach.[337] While Sunwater did not provide revised costs and price targets under its revised RAB approach, there appear to be material changes in price targets compared to its initial RAB approach, in particular:[338]

- 10 tariff groups had higher fixed price targets (on average, 10.2% higher)
- 30 tariff groups had lower fixed price targets (on average, 8.7% lower).

There was no change for the remaining 3 tariff groups.

In our draft report, we said that we expected Sunwater to consult with customers on its approach to managing the transitional impacts associated with an appropriate capitalisation policy, to ensure that its approach to managing these transitional impacts was informed by the outcomes sought by customers. In response, Sunwater said that engagement on transitional issues was unnecessary outside of schemes where the return of a positive annuity balance had the potential to create an apparent step-up in prices between periods.[339] In summary, Sunwater was of the view that the cost of further engagement on transitional issues would outweigh any perceived benefits and would come with an extremely high level of uncertainty that additional customers would participate and there would be a uniform preference.[340]

In our view, it is important to adopt a multiperiod horizon in designing the RAB approach to ensure that customers have a comprehensive understanding of the likely short- and longer-term implications of the transition. For instance, the choice of recovery period for negative annuity balances could have a significant impact on price target stability over the short to medium term for different tariff groups. The degree of price target and cash-flow stability over time is a relevant benchmark for this assessment, and understanding customer preferences in this context is crucial.

While engagement on transitional issues would have been costly to undertake within the constrained timeframe since our draft report, the incremental costs of consulting on this issue over the price path period should not be substantial given Sunwater's ongoing engagement processes. Moreover, it could be more costly in the long run to rush through the implementation now without resolving transitional issues.

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334 Sunwater, sub. 85, pp. 90–91.
335 QFF, sub. 83, pp. 4, 6; Cotton Australia, sub. 72, pp. 3–4; Theordore Water, sub. 87, p. 1.
336 Sunwater, sub. 85, pp. 90–91.
337 Sunwater, sub. 85, p. 89.
338 Based on Sunwater's modelling of its new capitalisation approach, using the renewals expenditure profile from our draft report. Sunwater, response to RFIs 19 and 21 (post-draft).
339 Sunwater, sub. 85, p. 90.
340 Sunwater, sub. 85, p. 91.

Tax allowance

As part of its RAB approach, Sunwater proposed including an annual tax allowance.[341] Sunwater's proposed approach to calculating the 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 over the price path period. Sunwater said that under current tax rules for irrigation water providers,[342] 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 price path period.

Some stakeholders 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.[343]

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 the RAB and annuity approach recover the cost of capital (return on and return of) for renewals expenditure. Given that renewals-related revenues are forecast to be similar over the forecast period under these approaches, we do not expect material differences in tax costs between the two approaches.

Sunwater confirmed the following tax rules apply in terms of tax cash flows 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.[344]

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 expenditure.[345] 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.[346] 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 2020 review, we accepted Sunwater's proposal to not include a tax allowance.[347] A zero tax allowance was appropriate due to accumulating tax losses over the current price path period.[348] Under Sunwater's proposed RAB approach, income tax cash flows associated with renewals funding are forecast to remain below the corresponding expenses over the price path period, leading to further accumulated tax losses over the next four years. This is due to the relatively high forecast renewals expenditure over the price path period before a drop-off beyond the price path period. There is a similar pattern under the existing renewals annuity approach.

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341 Sunwater, sub. 9, pp. 118–122.
342 *Income Tax Assessment Act 1997*, subdivision 40-F.
343 BRIA Irrigators, sub. 42, p. 12; BRIG, sub. 41, p. 2; Canegrowers, sub. 43, p. 2.
344 Sunwater, response to RFI 129.
345 Some of the funding will be provided through CSO payments, if customers are paying prices that are below the price target.
346 There has been an overall negative annuity balance at the start of each year since the start of regulation in 2012–13, although some schemes have had positive annuity balances. Sunwater does not receive a return on capital on positive annuity balances.
347 See QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, pp. 91–93.
348 The draft report (pp. 92–93) provides further detail.

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

7.2.4 Conclusion

We support an appropriately designed RAB approach, but we are not satisfied that Sunwater's approach is sufficiently robust and well developed to support moving to a RAB approach at this time. Sunwater's revised proposal is an improvement on the approach it initially proposed, but there are outstanding issues to be addressed.

Sunwater should conduct an independent comprehensive review to identify the appropriate opex and capex treatment of renewals expenditure. This should include a more robust classification of forecast renewals expenditure that can be used to determine the long-term financial impacts of moving to the RAB approach and the impacts on the price target in the short term and long term. It is disappointing that Sunwater did not meet our expectations in the 2020 review to undertake a comprehensive review of the opex and capex treatment of renewals expenditure before submitting its RAB proposal. Sunwater should also develop an implementation plan to put a process in place to systematically classify expenditure as part of business-as-usual processes.

Sunwater should undertake a more comprehensive assessment of its approach to transitional impacts. It should adopt a multiperiod horizon to ensure that customers have a comprehensive understanding of the likely short- and longer-term implications of the transition. The degree of price target and cash flow stability over time is a relevant benchmark for this assessment, and understanding customer preferences in this context is crucial.

In summary, whilst supporting the RAB approach in principle, our position is to continue to apply the renewals annuity approach to determine the allowance for renewals expenditure for the time being. For the RAB approach to be acceptable at the next price review, Sunwater must demonstrate that it has taken appropriate actions to address the issues we have raised, as summarised below.

Finding 4: Address outstanding issues with the RAB approach

We support an appropriately designed RAB approach, but we are not satisfied that Sunwater's approach is sufficiently robust and well developed to support moving to a RAB approach at this time.

For the RAB approach to be acceptable at the next price review, Sunwater must demonstrate that it has:

- conducted an independent comprehensive review of renewals expenditure to appropriately classify expenditure as opex or capex
- developed an implementation plan to put a process in place to systematically classify expenditure as part of business-as-usual processes
- comprehensively assessed its approach to managing transitional impacts, in consultation with 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 42 below.

Table 42: QCA position – calculation of opening annuity balance ($ million, nominal)

	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Opening annuity	**(56.6)**	**(62.2)**	**(73.0)**	**(80.8)**	**(78.2)**	**(91.2)**
Plus: annuity revenue	14.5	22.6	23.3	24.3	25.4	26.0
Less: renewals costs[a]	15.8	30.7	27.9	18.2	35.0	28.0
Plus: interest	(4.2)	(2.7)	(3.2)	(3.5)	(3.4)	(4.0)
Closing annuity	**(62.2)**	**(73.0)**	**(80.8)**	**(78.2)**	**(91.2)**	**(97.2)**

a Renewals costs are net of insurance recoveries received.
Notes: 1. This is the annuity account for renewals expenditure recoverable from irrigation and non-irrigation customers in regulated schemes. 2. 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 prudent and efficient renewals costs (see Chapter 5)
- adjusting for interest from 2020–21 onwards using the allowed post-tax nominal WACC of 4.37% from the 2020 review.

7.4 Renewals allowance

The renewals allowance calculated using a renewals annuity approach is set out in Table 43 below. Scheme level information is in Appendix C.

Table 43: QCA position – renewals allowance (annuity approach) ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater revised[a]	31.5	32.2	33.0	33.8	**130.4**
QCA position	24.4	25.0	25.6	26.2	**101.2**
Difference	**(7.1)**	**(7.2)**	**(7.4)**	**(7.5)**	**(29.2)**

a This incorporates updates provided by Sunwater for actual 2023–24 renewals expenditure, a revised proposal for its customer and stakeholder project (CASPr) and an addendum for dam safety management costs, since its November 2023 proposal.
Note: 1. Figures in this table relate to the renewals allowance recoverable from irrigation and non-irrigation customers in regulated schemes. 2. 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 2.65% 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 given in section 7.2.3, we consider that a zero tax allowance is appropriate for the price path period (see Table 44).

Table 44: QCA position – tax allowance ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater proposal	–	–	–	–	**-**
QCA 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.[349]

We have accepted the total revenue offset amount across all schemes (Table 45). 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.[350]

Table 45: QCA position – revenue offsets ($ million, nominal)

	2025-26	2026-27	2027-28	2028-29	Total
Sunwater proposal	(1.8)	(1.9)	(1.9)	(2.0)	**(7.6)**
QCA position	(1.8)	(1.9)	(1.9)	(2.0)	**(7.6)**
Difference	**-**	**-**	**-**	**-**	**-**

Source: Sunwater, sub. 9, p. 124; QCA analysis.

[349] Sunwater, sub. 9, p. 122.
[350] Sunwater, response to RFI 97.

8 Forecast volumes

This chapter explains 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:

- WAEs are used in allocating some fixed costs between medium and high priority tariff groups in each scheme
- WAEs are used as the denominator in deriving fixed (Part A and Part C) price targets
- forecast usage is used as the denominator in deriving volumetric (Part B and Part D) price targets.

Except for making an adjustment to WAEs in the 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[351] 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).[352]

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 46).

[351] Except for asset-related headworks (bulk) costs, which are generally allocated between medium and high priority WAE customers using the headworks utilisation factor.
[352] Queensland Government, *Current locations*, Business Queensland website, accessed 16 January 2025.

Table 46: Sunwater's proposed adjustments to WAEs consistent with the 2020 review

Scheme	Proposed adjustment
Burdekin-Haughton (distribution)	Removed 110,000 megalitres (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 review.
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 review.

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 not 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.[353] We have added Burnett Water distribution customer holdings to total Bundaberg distribution WAEs.

In addition to incorporating 2020 review adjustments, Sunwater also proposed to:

- remove 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
- reallocate 11,508 of medium priority distribution loss WAEs in the Mareeba-Dimbulah bulk scheme to usable irrigation customer WAEs in the bulk scheme.[354]

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.

[353] Sunwater, response to RFI 96.
[354] 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.[355] KBR found that water demand over the last 20 years was volatile, with the total water demand trendline near horizontal.[356] 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.[357]

Sunwater has proposed usage forecasts for all schemes using a simple 20-year average of previous usage estimates.[358]

BRIA Irrigators said the usage percentages in the Burdekin-Haughton scheme should be based on the 10-year average of medium priority usage, stating that a 20-year average does not allow for Sunwater's efficiency gains, which reduced losses significantly over the last 10 years.[359]

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 Summary of forecasts

Our forecast of WAEs and usage percentages for each scheme are presented in Table 47, with a comparison of the usage percentages with those applied to derive prices in the 2020 review. The forecast WAE and usage percentages have been updated from our draft report since 2023–24 estimates are now available. The 20-year average to derive forecast usage is now from 2004–05 to 2023–24.

Table 47: QCA position – WAEs and usage percentages of WAEs by scheme

Scheme	Service	WAEs (ML)[a]	Usage as percentage of WAEs	
			QCA position	2020 review
Barker Barambah	Bulk	34,315	32.3	42.0
Bowen Broken	Bulk	38,930	40.2	37.2
Boyne River	Bulk	43,405	50.6	55.8
Bundaberg	Bulk	236,329	48.4	47.1
Bundaberg	Distribution	166,330	48.5	48.0
Burdekin-Haughton	Bulk	1,079,592	52.4	54.9
Burdekin-Haughton	Distribution	335,431	61.3	65.0
Callide Valley	Bulk	19,039	64.4	62.4

355 Sunwater, sub. 9, p. 41.
356 Sunwater, sub. 13, p. 12.
357 Sunwater, sub. 13, p. 12.
358 Sunwater, sub. 9, p. 41.
359 BRIA irrigators, sub. 67, p. 1.

Scheme	Service	WAEs (ML)[a]	Usage as percentage of WAEs	
			QCA position	2020 review
Chinchilla	Bulk	4,049	55.3	57.5
Cunnamulla	Bulk	2,612	59.1	58.7
Dawson Valley	Bulk	61,737	61.9	61.6
Eton	Bulk	62,759	34.9	41.9
Lower Fitzroy	Bulk	28,621	64.7	66.4
Lower Mary River	Bulk	34,449	25.7	33.1
Lower Mary River	Distribution	15,262	29.7	31.2
Macintyre Brook	Bulk	24,997	53.4	63.0
Maranoa River	Bulk	805	2.8	3.3
Mareeba-Dimbulah	Bulk	204,424	61.7	64.7
Mareeba-Dimbulah	Distribution	146,954	62.5	63.0
Nogoa-Mackenzie	Bulk	231,857	64.9	72.7
Pioneer River	Bulk	78,110	29.2	34.0
Proserpine	Bulk	62,876	37.0	42.1
St George	Bulk	84,575	84.5	88.6
Three Moon Creek	Bulk	14,934	39.4	41.8
Upper Burnett	Bulk	28,720	54.2	56.7
Upper Condamine	Bulk	33,960	42.5	45.0

a Includes WAEs held by medium and high priority customers. Bulk WAEs include all distribution loss WAEs, including those for which the cost is borne by Sunwater (see section 9.1). Distribution WAEs exclude distribution loss WAEs.
Source: Sunwater, sub. 9, p. 43; Sunwater, response to RFI 27 (post-draft); Sunwater, *14 Water Access Entitlements_IPP25 Pricing Inputs Final Values*, November 2023.

9 Price targets

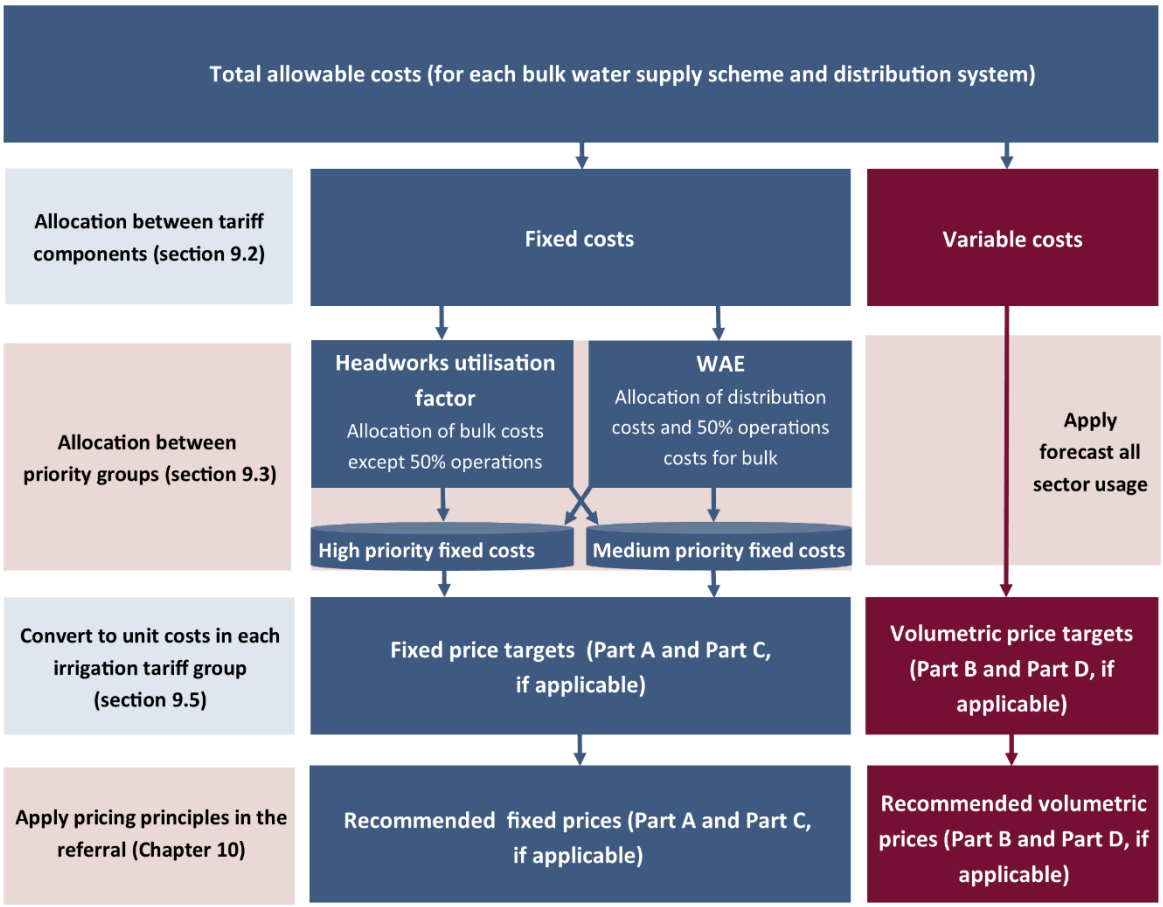
This chapter explains how we have converted total allowable costs to price targets for each tariff group over the price path period.

To derive allowable costs for each bulk water supply scheme and distribution system, we first made some adjustments in certain 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:

1. allocating costs between the fixed and volumetric tariff components (section 9.2)
2. allocating costs between priority groups (that is, high priority and medium priority customer groups) (section 9.3)
3. allocating costs between tariff groups (where applicable), or making other scheme-specific adjustments (section 9.4)
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 pricing principles in the referral to establish the transitional path to the price target for each tariff group and derive recommended prices (Chapter 10). Our general approach to deriving recommended prices is shown in Figure 17.

Figure 17: QCA general approach to deriving recommended 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 the cost of these WAEs will be included in fixed (Part C) and volumetric (Part D) price targets.[360]

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.[361] 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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360 Sunwater, sub. 9, p. 122.

361 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.[362]

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 75,730 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.[363]

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 gains between years.[364] 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. BRIA Irrigators said that the average usage and loss data for the Burdekin-Haughton scheme does not support a view that there has been no change in the efficient level of distribution loss WAEs for this scheme. It considered that Sunwater has no incentive to reduce the loss allocation, as there is no market for this additional water.[365]

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. Compared to using an average over a shorter period (as suggested by some stakeholders), this approach may be less reflective of any recent efficiency improvements. However, it provides greater certainty that Sunwater will hold a sufficient volume of distribution loss WAEs to provide for actual losses in the system, noting that there may be variations in actual distribution losses from year to year depending on the 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 2023–24 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 48.

362 Sunwater, sub. 9, p. 44.
363 Sunwater, sub. 9, p. 45.
364 Bundaberg Regional Irrigators Group (BRIG), sub. 41, p. 5.
365 BRIA Irrigators, sub. 42, pp. 4. 6 and sub. 67, p. 1.

Table 48: QCA position – efficient distribution loss WAEs in Sunwater schemes

Distribution system	2020 review		QCA 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[b]
Lower Mary	100	100	100	100
Mareeba-Dimbulah	100	100	100	100

a Our assessment excludes 2013–14 data (consistent with the 2020 review) as this year reflects an abnormal event related to severe flood damage to Paradise Dam. It also excludes 2019–20 data, 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. b We have used data from 2014–15 onwards (consistent with the 2020 review) as this provides a better representation of distribution losses in this scheme following the adoption by Sunwater in this year of a more formalised shutdown and treatment schedule for aquatic weed.

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.[366]

9.1.2 Other transfers

Adjustments must also be made in certain schemes to transfer costs between distribution system and bulk water supply 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.[367] 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 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.[368]

366 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.

367 *Water Plan (Burnett Basin) 2014*, Schedule 9, Part 3.

368 Sunwater, sub. 9, p. 123.

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 being transferred using the 53% volumetric factor.[369]

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.[370]

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.

9.2 Allocation of costs between tariff components

Costs must be allocated between fixed and 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

[369] Sunwater, sub. 9, p. 123.
[370] Sunwater, sub. 9, p. 123.

requirement in the referral for us to consider the fixed and variable nature of the underlying costs in relation to tariff structures.[371]

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.[372] 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[373] are assigned between fixed and volumetric tariff components 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 the fixed tariff component.

Other costs

In the 2020 review, we allocated 20% of direct operations and maintenance opex to the volumetric tariff component for bulk schemes and distribution systems. While we acknowledged that allocation of costs between fixed and volumetric 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.[374]

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 retained the cost allocation approach adopted in the 2020 review for direct operations and maintenance costs.

Summary

Our position on cost allocations for Sunwater is summarised in Table 49.

371 Referral, para. C (1.1)(a).
372 Sunwater, sub. 9, p. 131.
373 Barker Barambah (Redgate relift tariff group) and Upper Condamine (North Branch tariff groups) bulk schemes.
374 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 136.

Table 49: QCA position – allocation of costs to the volumetric tariff component (%)

Activity	Sunwater proposal	QCA position
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 asset–related fixed costs in bulk schemes 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 in the relevant operations manual
- the probability of utilisation of the scheme storages under conditions of relative supply shortage.[375]

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 50. We have confirmed the revised HUF calculations are appropriate, as they are consistent with the standard HUF methodology.

Table 50: Sunwater's proposed revisions to headworks utilisation factors

Scheme	Allocation to medium priority		Reason for the 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.

375 Sunwater, sub. 9, Appendix E, p. 4.

Scheme	Allocation to medium priority		Reason for the 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 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 said that we should review the HUF and how costs are attributed to it in the Upper Condamine scheme.[376] They said that risk A priority WAEs are solely supplied by the river and should not be 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.[377] In addition, consistent with previous reviews, we have derived a lower fixed (Part A) price target for this tariff group reflecting no recovery of renewals costs.

Table 51 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 WAEs. 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.[378] 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.

In response to the draft report, Sunwater said that there was regulatory precedent for allocating similar costs using the HUF, including metering costs and Seqwater's build costs for its new water accounting system.[379] However, we note that:

376 Central Downs Irrigators, sub. 46, p. 3.
377 Sunwater, sub. 14, p. 10.
378 Sunwater proposed to recover this using its proposed regulatory asset base (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.
379 Sunwater, sub. 85, p. 53.

- while metering renewals costs are not likely to relate to headworks, there are complexities with unbundling metering renewals annuity balances for each scheme to allow a different allocation approach, with the costs of improving allocation likely to outweigh the benefits[380]
- we accepted Seqwater's approach to recovering the costs of its new water accounting system, given the broad customer support of Seqwater's approach and the immaterial impact of any potential cost adjustment.[381]

We consider it appropriate to allocate all costs in distribution systems based on the WAE.

Table 51: QCA position – fixed cost allocation between high and medium priority groups

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 (section 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.[382]

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

380 Since the 2013 review, we have maintained separate annuity balances for Seqwater's non-metering and metering renewals, with metering costs allocated to irrigation customers based on WAEs. See QCA, *Seqwater Irrigation Price Review: 2013–17*, final report, vol. 1, April 2013, pp. 145–146.
381 QCA, *Rural irrigation price review 2025–29: Seqwater*, final report, January 2025, pp. 27–28.
382 Referral, section 1, definition of 'Price Target'.

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.[383]

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.[384] We have also had regard to the outcomes of Sunwater's customer engagement.

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.[385]

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 holds the 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.

In line with this approach, we have accepted Sunwater's general approach[386] 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.

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383 Sunwater, sub. 9, p. 128.
384 QCA Act, s. 26(1).
385 Sunwater, sub. 9, p. 129.
386 We have made some adjustments to the calculation of tariff groups in the distribution system to ensure that the price targets fully recover the irrigation share of allowable costs in the distribution system.

- 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).

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.[387] 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.[388] Other stakeholders supported our recommendations in the 2020 review.[389]

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.[390]

A detailed assessment of the issues raised in relation to the Giru Groundwater tariff group is in Appendix D. An overview is given below.

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387 Sunwater, sub. 9, p. 130.
388 Giru Benefited Area Committee, sub. 51 and sub. 75; Queensland Cane Agriculture and Renewables Limited (QCAR), Australian Cane Farmers Association Limited (ACFA) and AgForce Cane Board Limited (ACL) joint submission, sub. 58 and sub. 82; A. Pierotti & Sons, sub. 64; Bryant Agriculture, sub. 65; The Polagri Trust, sub. 86; Turfgrass Townsville Pty Ltd, sub. 89; A Wessel, sub. 90.
389 BRIA Irrigators, sub. 42, pp. 4, 8–10 and sub. 67.
390 Sunwater, sub. 9, p. 130.

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 separately 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 in the scheme 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 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 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 for Haughton Zone A. However, taking into account the assets required to serve customers in this tariff group, we consider that differences in cost or service levels are unlikely to be material.

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, with the lowest efficiency over the period assessed (2002–03 to 2022–2023) being 66% in 2013–14. It therefore remains the case that Haughton Zone A (including the GBGA) is a system that is materially supplemented in dry periods by water delivered by the channel system.

Summary

We have assessed whether it is appropriate for a different price target to apply to the Giru Groundwater tariff group than for other distribution system customers in this scheme. In doing so, we have carefully considered each of the matters we are required to consider in the referral and the *Queensland Competition Authority Act 1997* (QCA Act).[391]

Our assessment found that:

- as the current water planning and regulatory framework treats all entitlements in Haughton Zone A (including GBGA) as supplemented, there is no 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.

[391] In accordance with sections 24(1)(b) and 26 of the QCA Act. Also, see Appendix G, which explains how we have considered each of the matters we are required to consider.

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.[392]

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 Glady's Lagoon as part of its groundwater project and that this will reduce the amount of system yield.[393]

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-systems.[394] In the absence of updated information on Sunwater's cost of supply to this tariff group, we have maintained 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.[395] Stakeholders have identified the lack of a pricing incentive to use groundwater as a barrier to growers drawing groundwater for irrigation needs.

GBGA stakeholders noted that aligning the Giru Groundwater tariff group with the Burdekin Channel tariff group had an unintended consequence of not providing an incentive to use groundwater. Some stakeholders therefore supported a dewatering price incentive where rising groundwater is an issue, funded as a community service obligation (CSO), given environmental benefits.[396]

BRIA Irrigators did not support a tariff adjustment to incentivise pumping groundwater, noting that fixed and variable costs should be accurately apportioned. Also, it considered that a discounted price for water extracted by underground bores in the GBGA would be problematic given much of the groundwater is supplied by the channel distribution system, and that other means of incentivising groundwater extraction would be preferable.[397]

Pricing incentives were one of several possible actions identified as part of the government's Lower Burdekin Groundwater Strategy Project to address the issue of rising groundwater. Differential

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392 Sunwater, response to RFI 112.
393 BRIA Irrigators, sub. 42, p. 10 and sub. 67, p. 5.
394 Sunwater, sub. 9, p. 130; Sunwater, response to RFI 114.
395 Department of Local Government, Water and Volunteers (DLGWV), *Rising groundwater in the Lower Burdekin*, Queensland Government, DLGWV website, accessed 16 January 2025.
396 Canegrowers, sub. 68, p. 3; Canegrowers Burdekin, sub. 44, pp. 1–2 and sub. 69, p, 2; QCAR, ACFA and ACL joint submission, sub. 58, pp. 7–8, Attachment 1 and sub. 82, pp. 2–3.
397 BRIA Irrigators, sub. 42, p. 16 and sub. 67, p. 5.

pricing may help incentivise the use of groundwater over surface water, although other potential barriers to additional uptake of groundwater have been identified, including infrastructure and pumping costs, water quality and yield.[398] We note that Sunwater is undertaking a program of off-farm activities to address rising groundwater and salinity levels as part of the Lower Burdekin Rising Groundwater Mitigation Project, and that this project forms part of a broader strategy to address this issue.[399]

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-systems in the Burdekin-Haughton distribution system. In practice, differential pricing for groundwater 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 CSO payments 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% 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[400]
- 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.[401]

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,[402] the 100% volumetric tariff that applies to this tariff group and

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398 Department of Natural Resources and Mines, *Lower Burdekin Groundwater Strategy Project*, discussion paper, August 2017, pp. 20–21.

399 Sunwater, *Lower Burdekin Rising Groundwater Mitigation Project*, Sunwater website, accessed 16 January 2025.

400 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).

401 Sunwater, sub. 9, p. 129 and 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.

402 In the 2020 review, we recommended prices for the Eton (medium priority) tariff group based on the combined volume of High B priority and risk priority WAEs (QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 153, table 73). The government effectively accepted the associated price targets; 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 fully recover the costs allocated to the risk priority tariff group over the current price path period.

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). 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.[403]
- 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)).[404] 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.[405] 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 and managing the Pioneer River allocations of these customers and any associated increased maintenance costs.[406]

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.[407] 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 52 provides a summary of other scheme-specific adjustments that we have adopted in allocating allowable costs between tariff groups.

403 Sunwater, response to RFI 157.
404 EICL, sub. 49, pp. 9–10.
405 B Nicholson, sub. 56, pp. 3–5.
406 EICL, sub. 49, pp. 9–10.
407 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).

Table 52: QCA position – scheme-specific adjustments to allocate allowable costs between tariff groups

Scheme	Tariff groups	QCA position
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.

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 53.

Table 53: 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 local management supply) Nogoa-Mackenzie (high priority)
Eton	Water supply	Eton (high B priority local management supply) Eton (high B priority)
St George	Water supply	St George (medium priority local management supply) St George (medium priority)
Callide	Water supply	Callide – Callide and Kroombit Creek

Scheme	Service	Tariff group
		Callide – Benefited Groundwater Area
Dawson Valley	Water supply	Dawson Valley – River (high priority local management supply) Dawson Valley – River (high priority) Dawson Valley – River (medium priority local management supply) 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.

The Burdekin Channel – Glady's Lagoon (other than Natural Yield) tariff group has different underlying pricing arrangements (i.e. customers are not charged for 360 ML of identified natural yield), so it is not appropriate to merge it with the Burdekin Channel tariff group.

Hutchinson Ag submitted that a higher charge should apply to Theodore Water customers to reflect the higher reliability of the water they receive. It said that Theodore Water customers receive a 20% priority allocation at the start of every water year, with an average of 8.3% more water supplied to these customers at the end of the season. It therefore considered that a price differential should apply, potentially by applying a higher HUF.[408]

The medium priority tariff group for the Dawson Valley scheme includes both medium priority and medium A priority WAEs in the Upper Dawson sub-scheme and medium priority WAEs only in the Lower Dawson sub-scheme. We note that historically there has been differences between these three groups in terms of announced allocations. As noted by Hutchinson Ag, within the Upper Dawson sub-scheme, the announced allocations for the medium A priority group are up to 20% higher than those for the medium priority group. This reflects the requirements of the scheme's operations manual.[409] However, both in the short and long term, the historical average announced allocation for the medium priority group in the Lower Dawson sub-scheme is higher than that of the medium A priority group. Given these variations across sub-schemes, it is not clear that medium priority customers should pay a lower price than medium A priority customers based on a difference in service reliability. Further, adjusting the HUF is not appropriate as the HUF methodology only distinguishes between high priority WAEs and 'other' WAEs, with medium priority and medium A priority WAEs considered comparable products for HUF calculations.[410]

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

[408] Hutchinson Ag, sub. 76, pp. 2–3.
[409] See Sunwater, *Dawson Valley Water Supply Scheme Resource Operations Licence Operations Manual*, Water Plan (Fitzroy Basin) 2011, September 2022, section 12. This differential is reflected in the history of announced allocations for the scheme (see Sunwater, *Dawson Valley Announced Allocations History*, accessed 16 January 2025).
[410] See Sunwater, *Irrigation Price Review Submission, Appendix J, Headworks Utilisation Factors Technical Paper*, November 2018, p. 13. For this review, we have accepted Sunwater's proposed HUF for the Dawson Valley WSS, which is unchanged from the HUF we applied in the 2020 review.

megalitre) 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.[411]

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 explained in Chapter 7, we used a renewals annuity approach to derive the renewals allowance. The price targets for each tariff group are provided in Appendix E.

[411] Referral, sch. 2, para. A. Our estimate of inflation is discussed in Chapter 6.

10 Price recommendations

The last step to reach our price recommendations is to apply the pricing principles in the referral to establish the transitional path to the price target for each tariff group. The pricing principles specify the rules for transitioning prices to the price targets, 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.[412] This chapter sets out our approach to recommending:

- irrigation prices (section 10.1)
- miscellaneous prices, including drainage prices, water harvesting prices and termination fees (section 10.2).

10.1 Irrigation prices

Recommendation 1: Irrigation prices

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.

The pricing principles in the referral 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.[413]
- 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 had flexibility to decide on an appropriate transitional approach.

The referral also provides for special cases, where we may apply the transitional element of the pricing principles as we consider appropriate. These cases include where:

[412] Referral, para. B(1.1)(a).
[413] Except for the fixed bulk (Part A) price for distribution system customers.

- 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.[414]

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 pricing principles, as explained above, our recommendation is that prices for irrigation customers for each bulk water supply scheme and distribution system should be set according to the prices set out in Appendix F.

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.[415]

We have applied the pricing principles as we consider appropriate in recommending 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 pricing approach (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. 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.[416] 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 bulk water scheme and distribution system.[417]

414 Referral, para. B(1.1)(a) and section 1, definition of 'Appropriate Prices'.
415 Referral, para. B(1.1)(a) and section 1, definition of 'Appropriate Prices'.
416 Referral, para. B(1.1)(a).
417 Based on pre-adjusted revenue (Sunwater, sub. 9, p. 122).

Recommendation 2: Miscellaneous prices

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, the 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 from 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.[418]

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.[419] We agree that improved transparency in the cost allocation for drainage services

[418] Sunwater, sub. 9, p. 143.
[419] 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 Irrigators' 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.[420]

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.[421]

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.[422]

Government charges for water harvesting currently do not apply to the Burdekin–Haughton distribution system.[423]

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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420 Sunwater, sub. 9, p. 143.
421 Sunwater, sub. 9, p. 144.
422 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater,* final report, January 2020, p. 158. These potential components of a water harvesting charge were identified in our 2012 review.
423 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 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.[424]

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.[425] 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.[426]

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).[427] 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.

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424 Sunwater, sub. 9, pp. 143–144.

425 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, January 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.

426 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, pp. 14, 263.

427 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 therefore consider that a termination fee of up to 11 times (including GST) the relevant fixed price target is appropriate.[428] We consider that this appropriately balances the interests of the terminating customer, remaining customers and Sunwater.

We have reviewed the maximum termination fees proposed by Sunwater. Table 54 shows our maximum termination fee for each tariff group, based on the price targets set out in Appendix E.

Table 54: QCA recommendation – maximum termination fees for each tariff group ($/ML WAE, nominal)

Tariff group	2025–26	2026–27	2027–28	2028–29
Bundaberg channel	983.07	1011.28	1040.30	1070.16
Burdekin channel	548.87	564.76	580.97	597.64
Burdekin – Giru Groundwater	548.87	564.76	580.97	597.64
Burdekin – Glady's Lagoon (other than Natural Yield)	548.87	564.76	580.97	597.64
Lower Mary – Tinana and Teddington	161.67	166.31	171.08	175.99
Lower Mary channel	1211.13	1245.89	1281.65	1318.43
Mareeba–Dimbulah – outside a relift up to 100 ML	769.47	791.55	814.27	837.64
Mareeba–Dimbulah – outside a relift 100 ML to 500 ML	678.54	698.02	718.05	738.66
Mareeba–Dimbulah – outside a relift over 500 ML	526.87	541.99	557.54	573.54
Mareeba–Dimbulah – river supplemented streams and Walsh River	355.04	365.23	375.72	386.50
Mareeba–Dimbulah – relift	796.10	818.95	842.45	866.63

Note: Fees are inclusive of GST.
Source: QCA analysis.

[428] The relevant fixed price target is generally the fixed (Part C) price target, as this reflects the relevant fixed (distribution system) costs attributable to the exiting customer. For the Tinana and Teddington tariff group in the Lower Mary bulk scheme, when transferring to the Mary Barrage tariff group the multiple is applied to the difference between the fixed (Part A) price targets in these tariff groups.

11 Impact of recommended prices

This chapter discusses the impacts of our price recommendations on irrigation customers and estimates the revenue shortfall for each tariff group with recommended prices that are below the price target. More detailed information at the scheme and tariff group level is provided in scheme information sheets, which are available on our website.[429]

11.1 Annual price increases by tariff group

Based on our price recommendations, price increases would vary over the price path period for each tariff group and between tariff groups, although some tariff groups would see a price decrease in the first year because their current (2024–25) price is above the price target in 2025–26 (Figures 18 and 19). Our analysis is based on the total price per megalitre 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.

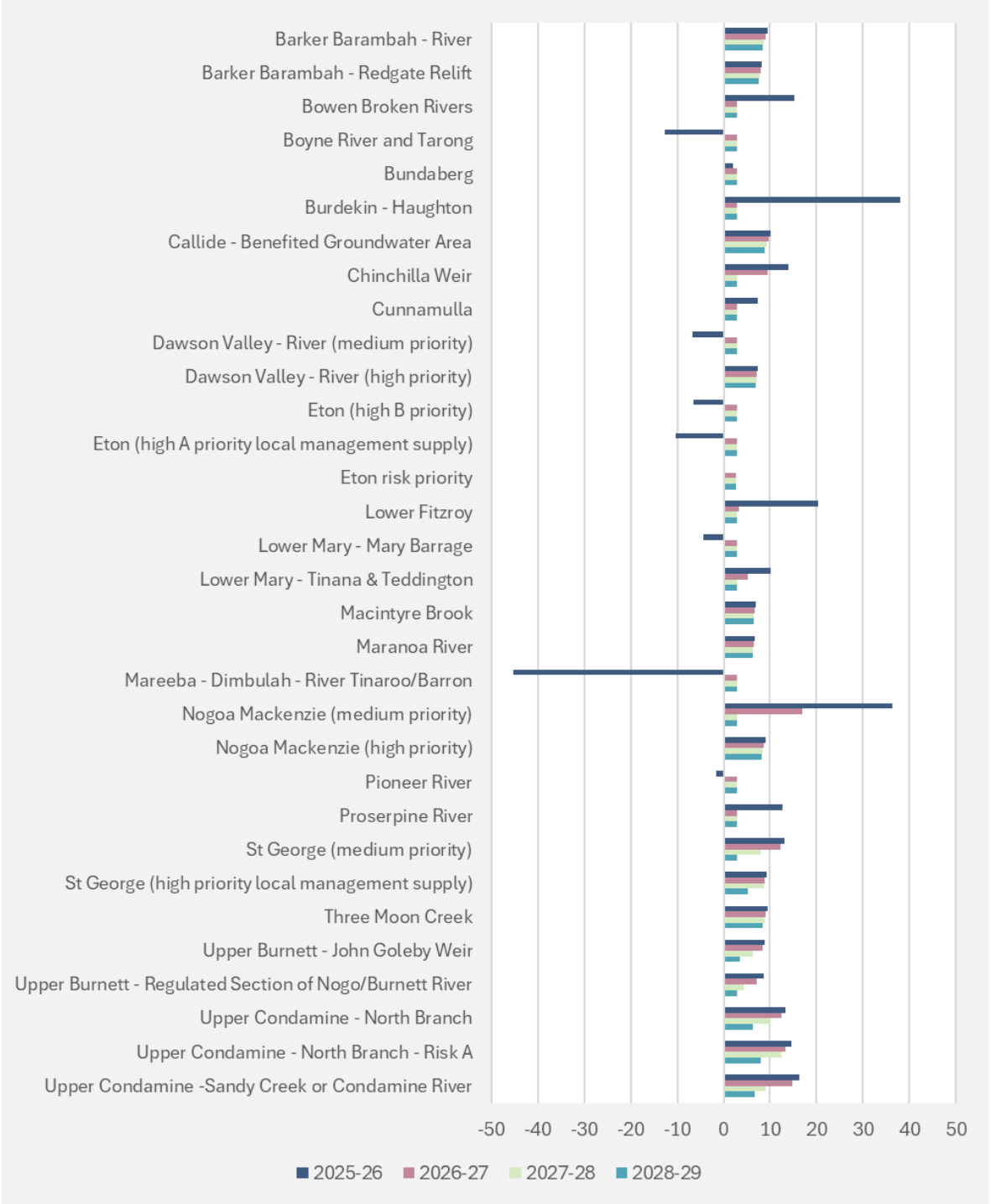
In 2025–26, a key driver of the difference in price changes between tariff groups is whether the fixed and volumetric components of the 2024–25 price are above or below the corresponding tariff components of the 2025–26 price target. Any components that are above will immediately reduce to the price target, and any components that are below will increase by no more than inflation plus $2.54/ML (2024–25 dollars, increasing by inflation) 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 is 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 (who would face 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, increasing annually by inflation) applied to a relatively low price would result in a larger percentage increase than if it were applied to a relatively high price.

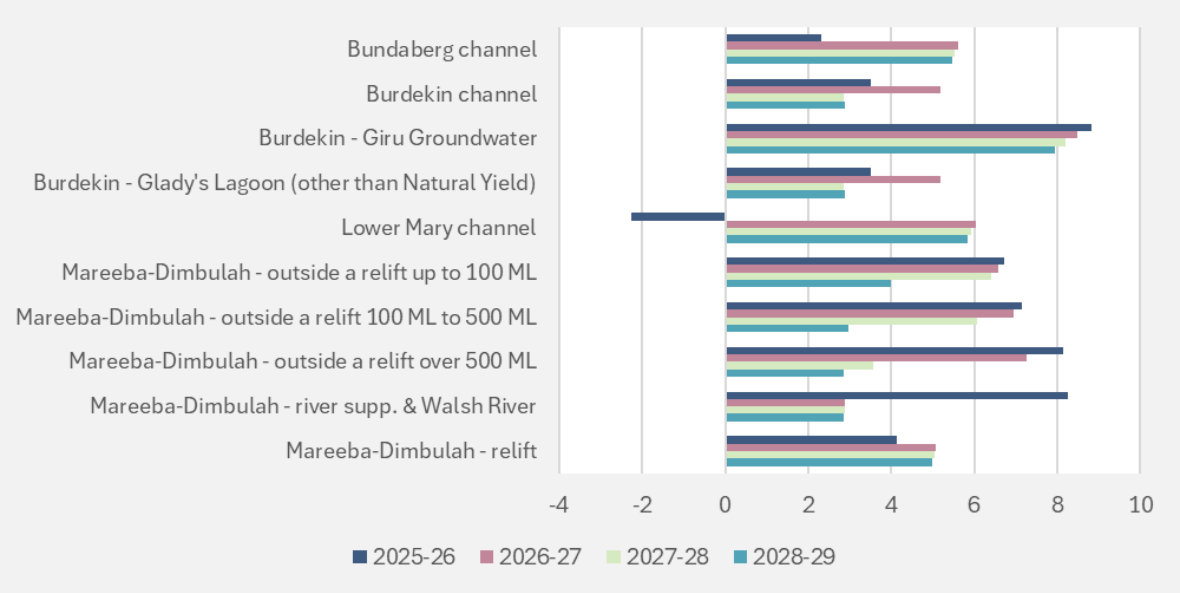
[429] QCA website, *Irrigation price investigation 2025–29*, 2025.

Figure 18: Changes in irrigation prices, bulk water supply schemes (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 19: Changes in 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.

11.2 Annual revenue shortfall by tariff group

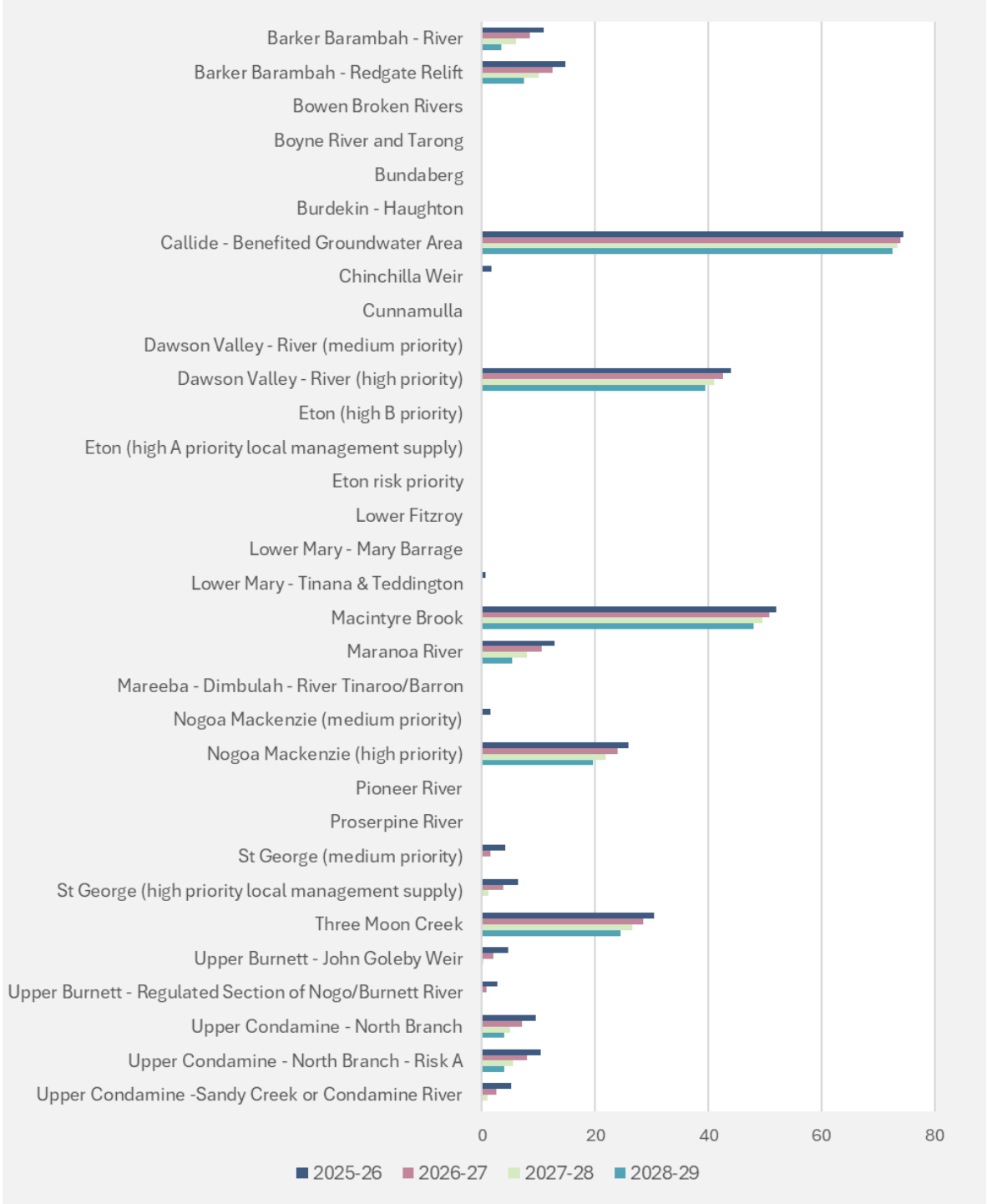
The government provides a community service obligation (CSO) payment to Sunwater when prices are below the price target. Overall, 13 of the 43 tariff groups will have prices at the price target in the first year of the price path period, with a further 14 tariff groups reaching the price target by the end of the price path period.

Based on the recommended prices and price targets, we estimated the revenue shortfall per megalitre of WAE for each tariff group over the price path period (Figures 20 and 21).[430] 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).

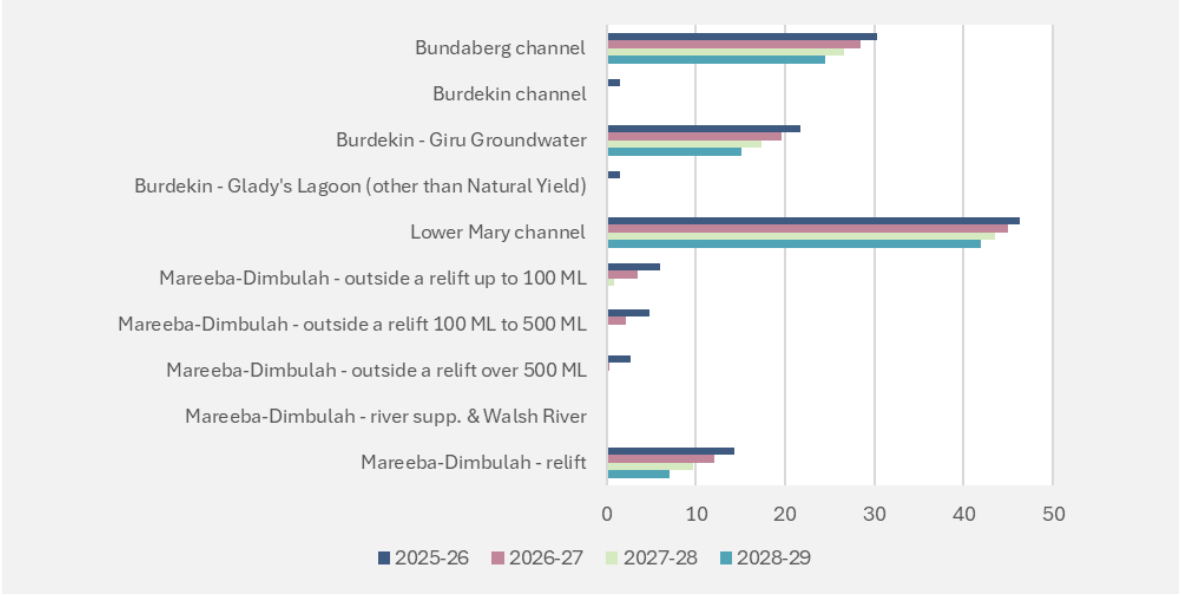
[430] The estimated shortfall does not cover the allowances for a return on (and of) dam safety upgrade capex and assets built before 1 July 2000, because they are excluded from the costs that are allowed to be recovered through the price target.

Figure 20: Estimated revenue shortfall, bulk water supply schemes ($/ML, nominal)



Note: The annual revenue shortfall per megalitre of WAE for each tariff group is calculated as the difference between the recommended price and price target, with the volumetric price component multiplied by the assumed scheme usage for volumetric prices.

Figure 21: Estimated revenue shortfall, distribution systems ($/ML, nominal)



Note: The annual revenue shortfall per megalitre of WAE for each tariff group is calculated as the difference between the recommended price and the price target, with the volumetric price component multiplied by the assumed scheme usage for volumetric prices.

11.3 Stakeholders' 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.[431]

In determining irrigation prices, the government has said that it is seeking to strike a balance between cost recovery, customer impacts, and simple and transparent pricing.[432] Previous government statements 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.[433]

We were directed to recommend prices that are consistent with the pricing principles in the referral.[434] The pricing principles set out how prices should transition to the price target and how the price target should 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 30 of Sunwater's 43 tariff groups), prices that are below the price target for some or all the price path period

[431] Canegrowers Mackay, sub. 45, pp. 1–3; QFF, sub. 59, pp. 5–7 and sub. 83, pp. 1–3; Queensland Cane Agriculture and Renewables Limited (QCAR), Australian Cane Farmers Association Limited (ACFA) and AgForce Cane Board Limited (ACL) joint submission, sub. 58, pp. 5–7, Attachment 1 and sub. 82, pp. 2–3; BRIA Irrigators, sub. 42, p. 6 and sub. 67, p. 3; Central Highlands Cotton Growers and Irrigators Association (CHCGIA), sub. 47, p. 2 and sub. 71, p. 2; Nogoa-Mackenzie IAC, sub. 57, p. 1; Barker Barambah IAC, sub. 40, p. 1; B Nicholson, sub. 56, p. 3; Canegrowers, sub. 68, pp. 1–2; Pioneer Valley Water Co-operative, sub. 80, p. 2.

[432] Queensland Government, *Seqwater and Sunwater irrigation pricing*, Business Queensland website, accessed 21 January 2025.

[433] 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 (2018) inquiry – issues paper*, 21 April 2017, p. 7.

[434] 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 generally below the full costs of supplying irrigation services.[435]

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, including price discounts, 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.[436] Several stakeholders considered that the 15% price discount should be maintained,[437] although one stakeholder preferred direct support to discounted prices.[438]

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, those preferences would need to be considered 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.[439] The Lockyer Water Users Forum said that assets may be stranded without an alternative pricing policy for underperforming assets.[440] When announced allocations are low, customers will pay more for each megalitre of water they take. In the draft report, we said that a possible option for schemes with lower reliability was to increase the allocation of costs to the volumetric charge when setting the price target. However, we did not receive any feedback from stakeholders that they were interested in pursuing this option. The suggestion by the Lockyer Water Users Forum that we recommend waiving fixed charges when no water is available or when a region is under a drought declaration[441] would be inconsistent with the pricing principles.

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435 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.

436 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.

437 QFF, sub. 83, p. 3; Canegrowers, sub. 68, p. 2; QCAR, ACFA and ACL joint submission, sub. 82, p. 1; Pioneer Valley Water Co-operative, sub. 80, p. 2; CHCGIA, sub. 71, p. 2.

438 Jovalan Farms, sub. 77, p. 1.

439 Lockyer Water Users Forum, sub. 52, pp. 1–3 and sub. 78, pp. 1–2; QFF, sub. 83, p. 4; QCA, *Murgon workshop – issues raised (12 February 2024)*, published February 2024; QCA, *Gatton workshop – issues raised (23 January 2024)*, published February 2024; QCA, *Gatton workshop – issues raised (30 July 2024)*, published August 2024.

440 Lockyer Water Users Forum, sub. 52, pp. 1–3 and sub. 78, pp. 1–2.

441 Lockyer Water Users Forum, sub. 52, pp. 1–3 and sub. 78, pp. 1–2.

Other support measures may be available to customers who require additional financial assistance. For instance:

- Sunwater has a hardship policy and can support customers through flexible payment options.[442]
- 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.[443]
- 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.[444]

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 meet other policy objectives.

442 Sunwater, *Managing your account - hardship*, Sunwater website, accessed 3 January 2025.
443 Australian Government, *Farm Management Deposits*, Department of Agriculture, Fisheries and Forestry (DAFF) website, 2024, accessed 6 January 2025; Australian Government, *Farm management deposits*, Australian Taxation Office (ATO) website, accessed 6 January 2025.
444 See the Queensland Rural and Industry Development Authority website.

12 Managing cost risk

In this chapter, we explain our recommendations on appropriate price review triggers and other mechanisms to manage the risks associated with material changes in allowable costs outside Sunwater's control.[445]

In relation to opex risk, we recommend maintaining the review event mechanism, and maintaining the current list of review events, but clarifying the definitions and the criteria for assessing review event applications. Sunwater is no longer proposing to introduce an electricity cost pass-through (ECPT) mechanism.

In relation to renewals expenditure and non-renewals capex risk, we recommend maintaining the current approach of undertaking an ex post true-up, subject to an assessment of those costs for prudency and efficiency.

Recommendation 3: Managing cost risk

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. An increase in total costs is sufficiently material if the additional costs 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 expenditure and non-renewals capex.

12.1 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

[445] Referral, para. B(1.1)(b).

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.[446] The government accepted our recommendation.[447] 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 review event costs in the current price path period is provided in section 4.6.

Sunwater proposed to continue to manage uncontrollable opex risk through a review event mechanism.[448] 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
- 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 assessed Sunwater's proposal to maintain the current list of review events, which addresses risks related to electricity costs, insurance premiums, and government policy.[449] 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.

12.1.1 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, which would apply instead of the review event mechanism for specified tariff groups in those schemes.[450] However, in its submission to the draft report, Sunwater advised that it was no longer proceeding with its proposal to introduce an ECPT mechanism.[451]

Proposed ECPT mechanism

Customers in certain tariff groups were consulted about whether they supported an ECPT mechanism.[452] The following tariff groups were selected on the basis that they have high electricity costs due to significant pumping requirements:

- Barker Barambah – Redgate relift

446 QCA, *Rural irrigation price review 2020–24, Part A: Overview*, final report, January 2020, p. 43.
447 Referral, para. B(1.1)(a); Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, p. 26.
448 Sunwater, sub. 9, p. 39.
449 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.
450 Sunwater, sub. 9, pp. 22, 39.
451 Sunwater, sub. 85, pp. 11, 92.
452 Sunwater, sub. 9, pp. 22, 39.

- 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.[453] This followed a three-year ECPT trial conducted by Sunwater for each of the above tariff groups (except the Eton tariff groups).[454] 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 would provide a means for customers to challenge the prudency and efficiency of the costs to be passed through.[455]

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.[456]

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.[457] 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.[458]

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.

[453] Sunwater, sub. 9, pp. xvi, 53
[454] The trial, which was originally scheduled to end on 30 June 2023, has recently been extended to 30 June 2025 (Sunwater, *Electricity Cost Pass-Through Trial*, Sunwater website, accessed 4 December 2024; Sunwater, response to RFI 18 (post-draft)).
[455] Sunwater, sub. 15, pp. 12–18.
[456] 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).
[457] Sunwater, sub. 9, p. 56.
[458] Sunwater, sub. 9, p. 134.

> 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. [459]

Given the lack of customer support, Sunwater initially proposed to introduce an ECPT mechanism for the Eton scheme only.[460] However, comments from stakeholders at the Mackay workshop suggested that many Eton customers did not support the proposed mechanism.[461] 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.[462]

Stakeholders in other schemes reiterated their objection to Sunwater's proposed mechanism.[463] BRIA Irrigators commented that the proposal unnecessarily complicated tariffs and billing.[464] Canegrowers was concerned that the complexity of the proposed mechanism may lead to confusion, disputes and increased administration costs.[465]

However, BRIA Irrigators, Bundaberg Regional Irrigators Group (BRIG) and Canegrowers supported introducing a mechanism that was consistent with the trial mechanism (without the 'no worse off' parameter).[466] BRIA Irrigators said this type of approach would avoid price shocks and allow customers to maintain the benefit of subsidised prices, while Canegrowers considered it would be simpler and more transparent.[467] Central Downs Irrigators were also supportive of a mechanism that maintained the subsidy, on the basis that an ECPT mechanism would provide a more efficient means of recovering electricity costs.[468]

We are concerned that customers did not appear to understand how Sunwater's 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.[469] However, the prices would not signal the efficient costs of future usage, because they would reflect the costs incurred in a previous period.

We raised a number of other issues with the introduction of an ECPT mechanism in the draft report, including:

- the potential inconsistency with the pricing principles and the requirement in the referral to consider the need to, where possible, provide pricing outcomes that are simple and transparent[470]
- potentially high administration costs
- the lack of stakeholder support for the mechanism proposed

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459 Sunwater, sub. 9, p. 32.
460 Sunwater, sub. 9, p. 53.
461 QCA, *Mackay workshop – issues raised (9 February 2024)*, published February 2024.
462 EICL, sub. 49, p. 3.
463 Wilmar Sugar Australia, sub. 62, p. 1; BRIA Irrigators, sub. 42, pp. 4, 13–14; Bundaberg Regional Irrigators Group (BRIG), sub. 41, pp. 3–4, 8–14; Central Downs Irrigators, sub. 46, p. 3; Canegrowers, sub. 68, p. 2.
464 BRIA Irrigators, sub. 42, pp. 4, 13–14.
465 Canegrowers, sub. 68, p. 2.
466 BRIA Irrigators, sub. 42, pp. 4, 13–14; BRIG, sub. 41, pp. 3–4; Canegrowers, sub. 68, p. 2.
467 BRIA Irrigators, sub. 42, pp. 13–14; Canegrowers, sub. 68, p. 2.
468 Central Downs Irrigators, sub. 46, p. 3.
469 Sunwater, sub. 15, p. 15.
470 Referral, para. C(1.1)(b)(ii), sch. 2.

- the lack of rationale for an alternative mechanism that would maintain the subsidy.[471]

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.[472] However, as we explained in the draft report, 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.[473] The SPPs have recently been updated in consultation with customers, and Sunwater said it was open to further changes in response to customer feedback.[474]

Given the lack of support for its initial proposal, Sunwater said that it would work with customer representative groups on an alternative proposal. However, after further consultation with the Consultative Committee and EICL, and after considering our feedback in the draft report, Sunwater decided against proceeding with its proposal for an ECPT mechanism.[475]

If Sunwater intends to propose an ECPT mechanism in future reviews, it should clearly explain how the mechanism is compatible with the requirements in the referral, demonstrate that the benefits of introducing the mechanism outweigh the costs, and ensure that stakeholders have been appropriately consulted. We also encourage Sunwater to consult with customers about whether the SPPs should be updated to include the additional information that it planned to include in the annual ECPT mechanism report.[476]

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.[477] Around 86% of electricity is purchased through the market contract, which expires mid-way through the last year of the price path period.[478] 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,[479] 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.[480]

We considered whether to define the review event more narrowly than in our 2020 review to reflect Sunwater's reduced risk exposure. However, our view is 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

471 The draft report (pp. 135–138) provides further detail.
472 Sunwater, sub. 15, p. 14.
473 See, for instance, Sunwater, *Service and Performance Plan 2024*, Burdekin Haughton Distribution Service Contract, 12 November 2024, pp. 8–10.
474 Sunwater, sub. 9, p. 33.
475 Sunwater, sub. 85, pp. 11, 80–81, 92.
476 BRIG (sub. 66, p. 2) supported the inclusion of this additional information in SPPs.
477 Sunwater, sub. 9, p. 72 and sub. 15, pp. 2–3, 10.
478 This relates to 2022–23 actual electricity consumption. From Sunwater, response to RFI 13.
479 Sunwater, response to RFI 152.
480 The AER made draft decisions in September 2024 (AER, *AER releases draft decisions for Ergon Energy and Energex 2025–30 revenue proposals*, media release, 23 September 2024).

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 recommendation is that the review event should be retained.[481] 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 than an ECPT mechanism (see section 12.1.5).

12.1.2 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.[482] EICL did not support retaining the review event, because it would not encourage Sunwater to reduce insurance costs. EICL said an alternative mechanism was needed to provide the right incentives.[483]

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 price path period suggest that the existence of a review event mechanism did not prevent Sunwater from efficiently managing insurance costs. While this outcome demonstrates that Sunwater has some control over insurance premiums,[484] 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 recommendation is that the review event should be retained.

12.1.3 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.[485]

Our recommendation is that the review 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.

12.1.4 Assessing review event applications

We recommend clarifying 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:

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481 EICL (sub. 74, p. 2) supported this position.
482 Sunwater, sub. 9, p. 40.
483 EICL, sub. 49, pp. 8–9 and sub. 74, pp. 1, 3.
484 Sunwater, sub. 9, pp. 22, 39–40, 69–71.
485 Sunwater, sub. 9, p. 39.

- 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.

12.1.5 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 pricing principles, which define how prices are to change over the price path period.[486] 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.

12.2 Renewals expenditure risk

When we determine the allowance for renewals expenditure for the price path period, we are required to adjust the allowance to reflect prudent and efficient renewals expenditure incurred in previous periods (see Chapter 5).[487]

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 expenditure to avoid inefficient substitution between opex and renewals expenditure.

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 expenditure 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 price targets that are higher than necessary.

We consider that our suggested improvements to strengthen the effectiveness of the ex post review process in section 5.4.5 should help to address the shortcomings of the current review process. 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 expenditure risk and the role of ex post assessments in future reviews.

[486] QFF (sub. 59, pp. 4–5) was opposed to within-period reviews.
[487] Referral, para. B(1.1)(a).

Our recommendation is to maintain the current approach of adjusting forecast renewals expenditure and non-renewals capex for actual costs, subject to an ex post assessment for prudency and efficiency.

Appendix A: Irrigation prices in the current price path period

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 those 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 2020 review recommended prices for the period 1 July 2020 to 30 June 2024.[488] In accordance with the pricing principles specified in the referral for that review, 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 $2.38 per megalitre of water access entitlement (2020–21 dollars, increasing annually by inflation) where the prevailing total fixed price was below the associated component of the price target;[489] no change in the total fixed price where the prevailing total fixed price was above the associated component of the price target[490]
- volumetric prices – annual increases by no more than inflation plus $2.38 per megalitre (2020–21 dollars, increasing annually 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.[491]

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.[492] 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:[493]

- For 2020–21, prices were maintained at 2019–20 levels,[494] as part of a broader package of measures to support businesses through the covid-19 pandemic. The government also said

488 QCA, *Irrigation price investigation 2020–24*, final report, January 2020.
489 The required increase was applied firstly to the bulk fixed price (Part A).
490 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 price was above the associated component of the price target.
491 In accordance with the 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.
492 Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, pp. 25–30.
493 Note that we were not directed to recommend prices for the last year of the period (i.e. 2024–25).
494 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.[495]

- From 2021–22 to 2024–25, prices in each year generally reflect the prices we recommended for the previous year.[496] 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.[497] 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.[498]

Reflecting customer affordability concerns, the government also decided to subsidise dam safety upgrade capex, instead of including those costs in the price target.[499]

[495] 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.

[496] Unless the 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.

[497] 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, 2024, Queensland Government, accessed 16 January 2025).

[498] 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.

[499] Queensland Government, *Gazette: Extraordinary*, vol. 384, no. 5, 5 May 2020, pp. 25–30.

Appendix B: Stakeholder consultation

This appendix lists the submissions we received during our review (section B.1) and provides details of the two rounds of workshops we conducted (section B.2).

B.1 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
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

Stakeholder	Submission number	Type of submission	Date
	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
	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

Stakeholder	Submission number	Type of submission	Date
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
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) et al.[500]	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
A. Pierotti & Sons	64	Submission on Sunwater draft report	September 2024

[500] Joint submission by QCAR, Australian Cane Farmers Association Limited (ACFA) and AgForce Cane Board Limited (ACL).

Stakeholder	Submission number	Type of submission	Date
Bryant Agriculture	65	Submission on Sunwater draft report	September 2024
Bundaberg Regional Irrigators Group (BRIG)	66	Submission on Sunwater draft report	September 2024
Burdekin River Irrigation Area (BRIA) Irrigators Limited	67	Submission on Sunwater draft report	September 2024
Canegrowers	68	Submission on Sunwater draft report	September 2024
Canegrowers Burdekin	69	Submission on Sunwater draft report	September 2024
Central Downs Irrigators	70	Submission on Sunwater draft report	September 2024
Central Highlands Cotton Growers and Irrigators Association (CHCGIA)	71	Submission on Sunwater draft report	September 2024
Cotton Australia	72	Submission on Sunwater draft report	September 2024
Drynan, G	73	Submission on Seqwater draft report	September 2024
Eton Irrigation Cooperative Ltd (EICL)	74	Submission on Sunwater draft report	September 2024
Giru Benefited Area Committee	75	Submission on Sunwater draft report	September 2024
Hutchinson Ag	76	Submission on Sunwater draft report	September 2024
Jovalan Farms	77	Submission on Sunwater draft report	September 2024
Lockyer Water Users Forum	78	Submission on Seqwater draft report	September 2024
Mallawa Irrigation	79	Submission on Sunwater draft report	September 2024
Pioneer Valley Water Co-operative Limited	80	Submission on Sunwater draft report	September 2024
qldwater	81	Submission on Sunwater draft report	September 2024
Queensland Cane Agriculture and Renewables (QCAR) et al.[501]	82	Submission on Sunwater draft report	September 2024
Queensland Farmers' Federation (QFF)	83	Submission on Sunwater and Seqwater draft reports	September 2024
Seqwater	84	Submission on Seqwater draft report	September 2024
Sunwater	85	Submission on Sunwater draft report	September 2024
The Polagri Trust	86	Submission on Sunwater draft report	September 2024

[501] Joint submission by QCAR, ACFA and ACL.

Stakeholder	Submission number	Type of submission	Date
Theodore Water	87	Submission on Sunwater draft report	September 2024
Tranquility	88	Submission on Sunwater draft report	August 2024
Turfgrass Townsville Pty Ltd	89	Submission on Sunwater draft report	September 2024
Wessell, A	90	Submission on Sunwater draft report	September 2024

B.2 Stakeholder workshops

We held two rounds of stakeholder workshops – the first round in January/February 2024 and the second round in July/August 2024. The workshop presentations and summaries of the issues raised at each workshop are available on our website.

First round – January/February 2024

The first round of workshops was held after the businesses submitted their proposals. We held ten in-person workshops and one online workshop, with a total of 115 attendees.

Date	Location	Schemes covered	Number of attendees[a]
23 January	Gatton	Central Lockyer Valley, Lower Lockyer Valley (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, and Sunwater and Seqwater staff.

Second round – July/August 2024

The second round of workshops was held after we released the draft report. We held ten in-person workshops and one online workshop, with a total of 99 attendees.

Date	Location	Schemes covered	Number of attendees[a]
26 July	Murgon	Barker-Barambah, Boyne River and Tarong (Sunwater)	2
30 July	Gatton	Central Lockyer Valley, Lower Lockyer Valley, Logan River (Seqwater)	8
1 August	Giru	Burdekin-Haughton (Sunwater)	12
1 August	Clare	Burdekin-Haughton (Sunwater)	22
2 August	Mackay	Pioneer River, Eton (Sunwater)	9
16 August	Pittsworth	Upper Condamine, Macintyre Brook, Chinchilla Weir (Sunwater)	4
19 August	Online	All Sunwater schemes	6
20 August	Bundaberg	Bundaberg (Sunwater)	8
21 August	Monto	Three Moon Creek (Sunwater)	11
21 August	Moura	Dawson Valley (Sunwater)	7
22 August	Emerald	Nogoa-Mackenzie (Sunwater)	10
Total			**99**

a Excluding QCA staff.

Appendix C: Costs by scheme

C.1 Bulk water supply schemes

Barker Barambah WSS

Table 55: Total allowable costs, Barker Barambah WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	348.1	358.2	367.9	376.6
Operations – non-direct	490.6	504.9	518.5	530.8
Maintenance – direct	139.9	143.9	147.7	151.3
Maintenance – non-direct	149.8	154.1	158.3	162.0
Insurance	296.5	304.7	312.6	320.3
Electricity	23.5	24.1	24.8	25.4
Review events	43.3	44.6	45.8	47.0
Renewals allowance	816.1	831.3	841.4	858.7
Revenue offsets	(6.9)	(7.1)	(7.3)	(7.5)
QCA fee	18.2	18.7	19.2	19.8
Total allowable costs	**2,319.1**	**2,377.4**	**2,429.0**	**2,484.4**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Bowen Broken Rivers WSS

Table 56: Total allowable costs, Bowen Broken Rivers WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	325.0	334.4	343.5	351.6
Operations – non-direct	456.5	469.7	482.4	493.9
Maintenance – direct	249.2	256.4	263.3	269.6
Maintenance – non-direct	237.6	244.5	251.1	257.0
Insurance	209.4	215.2	220.8	226.2
Electricity	237.9	244.4	250.8	256.9
Review events	33.9	34.9	35.9	36.8
Renewals allowance	663.7	677.4	686.4	698.2
Revenue offsets	–	–	–	–
QCA fee	3.2	3.3	3.4	3.5
Total allowable costs	**2,416.3**	**2,480.3**	**2,537.5**	**2,593.7**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Boyne River and Tarong WSS

Table 57: Total allowable costs, Boyne River and Tarong WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	253.6	261.0	268.0	274.4
Operations – non-direct	348.6	358.7	368.4	377.2
Maintenance – direct	99.6	102.5	105.2	107.8
Maintenance – non-direct	85.7	88.2	90.6	92.7
Insurance	450.0	462.4	474.4	486.0
Electricity	3.0	3.0	3.1	3.2
Review events	87.9	90.5	93.0	95.5
Renewals allowance	1,193.1	1,204.2	1,221.6	1,233.3
Revenue offsets	(0.9)	(0.9)	(0.9)	(1.0)
QCA fee	5.2	5.4	5.5	5.7
Total allowable costs	**2,525.8**	**2,574.9**	**2,629.0**	**2,674.7**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Bundaberg WSS

Table 58: Total allowable costs, Bundaberg WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	578.1	594.9	610.9	625.4
Operations – non-direct	868.0	893.2	917.3	939.1
Maintenance – direct	204.5	210.4	216.0	221.1
Maintenance – non-direct	270.9	278.8	286.3	293.1
Insurance	298.7	306.9	314.9	322.6
Electricity	12.0	12.4	12.7	13.0
Review events	(26.5)	(27.3)	(28.1)	(28.8)
Renewals allowance	1,954.2	1,980.7	2,022.2	2,057.7
Revenue offsets	(2.0)	(2.1)	(2.1)	(2.2)
QCA fee	105.7	108.7	111.8	115.0
Total allowable costs	**4,263.5**	**4,356.4**	**4,461.9**	**4,556.0**
Costs transferred from distribution system	60.2	61.9	63.8	65.5
Total allowable costs allocated to tariff groups	**4,323.7**	**4,418.3**	**4,525.7**	**4,621.5**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Burdekin-Haughton WSS

Table 59: Total allowable costs, Burdekin-Haughton WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	1,661.2	1,709.5	1,755.7	1,797.3
Operations – non-direct	1,220.1	1,255.5	1,289.5	1,320.1
Maintenance – direct	521.2	536.1	550.5	563.6
Maintenance – non-direct	312.3	321.4	330.1	337.9
Insurance	1,268.7	1,303.6	1,337.5	1,370.3
Electricity	7.3	7.5	7.7	7.9
Review events	341.8	351.9	361.7	371.3
Renewals allowance	1,238.3	1,271.2	1,300.1	1,327.3
Revenue offsets	(6.5)	(6.6)	(6.8)	(7.0)
QCA fee	368.6	379.2	390.1	401.3
Total allowable costs	**6,933.1**	**7,129.3**	**7,316.1**	**7,490.0**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Callide Valley WSS

Table 60: Total allowable costs, Callide Valley WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	464.8	478.3	491.2	502.9
Operations – non-direct	580.0	596.8	613.0	627.5
Maintenance – direct	345.1	355.0	364.5	373.2
Maintenance – non-direct	337.7	347.5	356.9	365.3
Insurance	484.6	497.9	510.9	523.4
Electricity	23.7	24.4	25.0	25.6
Review events	92.7	95.4	98.1	100.7
Renewals allowance	2,453.3	2,476.4	2,513.6	2,563.3
Revenue offsets	–	–	–	–
QCA fee	7.4	7.6	7.8	8.0
Total allowable costs	**4,789.3**	**4,879.3**	**4,981.0**	**5,089.9**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Chinchilla Weir WSS

Table 61: Total allowable costs, Chinchilla Weir WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	43.6	44.8	46.1	47.2
Operations – non-direct	47.9	49.3	50.6	51.8
Maintenance – direct	17.2	17.7	18.2	18.6
Maintenance – non-direct	10.2	10.5	10.8	11.1
Insurance	17.7	18.2	18.7	19.1
Electricity	0.0	0.0	0.0	0.0
Review events	1.1	1.1	1.1	1.2
Renewals allowance	193.4	197.1	199.1	201.7
Revenue offsets	(2.5)	(2.6)	(2.6)	(2.7)
QCA fee	1.4	1.5	1.5	1.6
Total allowable costs	**330.1**	**337.7**	**343.5**	**349.6**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Cunnamulla WSS

Table 62: Total allowable costs, Cunnamulla WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	9.8	10.1	10.4	10.6
Operations – non-direct	16.2	16.7	17.1	17.5
Maintenance – direct	1.2	1.3	1.3	1.3
Maintenance – non-direct	2.5	2.5	2.6	2.7
Insurance	8.0	8.2	8.4	8.6
Electricity	–	–	–	–
Review events	2.1	2.2	2.2	2.3
Renewals allowance	64.2	64.8	65.5	66.6
Revenue offsets	–	–	–	–
QCA fee	1.4	1.4	1.5	1.5
Total allowable costs	**105.4**	**107.1**	**109.1**	**111.2**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Dawson Valley WSS

Table 63: Total allowable costs, Dawson Valley WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	260.8	268.3	275.6	282.1
Operations – non-direct	411.7	423.6	435.1	445.4
Maintenance – direct	112.7	116.0	119.1	121.9
Maintenance – non-direct	166.9	171.7	176.3	180.5
Insurance	189.6	194.8	199.9	204.8
Electricity	55.8	57.4	58.9	60.3
Review events	43.9	45.2	46.5	47.7
Renewals allowance	593.6	610.7	632.9	645.1
Revenue offsets	–	–	–	–
QCA fee	31.1	32.0	32.9	33.8
Total allowable costs	**1,866.1**	**1,919.7**	**1,977.2**	**2,021.8**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme.
Source: QCA analysis. 3. Totals may not add due to rounding.

Eton WSS

Table 64: Total allowable costs, Eton WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	302.0	310.8	319.2	326.8
Operations – non-direct	375.2	386.1	396.6	406.0
Maintenance – direct	311.2	320.2	328.8	336.6
Maintenance – non-direct	259.5	267.1	274.3	280.8
Insurance	279.6	287.2	294.7	301.9
Electricity	373.0	387.8	404.6	418.4
Review events	(140.0)	(144.2)	(148.2)	(152.1)
Renewals allowance	688.8	760.9	776.7	794.4
Revenue offsets	(1.7)	(1.7)	(1.8)	(1.8)
QCA fee	35.1	36.1	37.1	38.2
Total allowable costs	**2,482.8**	**2,610.3**	**2,682.1**	**2,749.2**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Lower Fitzroy WSS

Table 65: Total allowable costs, Lower Fitzroy WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	98.4	101.3	104.0	106.5
Operations – non-direct	160.1	164.8	169.3	173.3
Maintenance – direct	61.4	63.2	64.8	66.4
Maintenance – non-direct	44.2	45.4	46.7	47.8
Insurance	30.8	31.6	32.5	33.2
Electricity	2.6	2.7	2.7	2.8
Review events	3.2	3.3	3.4	3.4
Renewals allowance	90.4	95.4	97.7	98.8
Revenue offsets	–	–	–	–
QCA fee	1.8	1.8	1.9	1.9
Total allowable costs	**492.9**	**509.4**	**522.9**	**534.1**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Lower Mary WSS

Table 66: Total allowable costs, Lower Mary WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	38.1	39.2	40.2	41.2
Operations – non-direct	59.1	60.8	62.4	63.9
Maintenance – direct	13.7	14.1	14.4	14.8
Maintenance – non-direct	10.1	10.4	10.6	10.9
Insurance	14.9	15.3	15.7	16.1
Electricity	–	–	–	–
Review events	(5.9)	(6.1)	(6.2)	(6.4)
Renewals allowance	239.0	242.0	248.2	252.5
Revenue offsets	–	–	–	–
QCA fee	12.9	13.2	13.6	14.0
Total allowable costs	**381.8**	**388.9**	**399.0**	**406.9**
Costs transferred from distribution system	294.2	305.2	317.2	335.7
Total allowable costs allocated to tariff groups	**675.9**	**694.1**	**716.1**	**742.6**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Macintyre Brook WSS

Table 67: Total allowable costs, Macintyre Brook WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	409.3	421.2	432.6	442.8
Operations – non-direct	662.1	681.3	699.7	716.4
Maintenance – direct	117.3	120.7	123.9	126.8
Maintenance – non-direct	199.5	205.2	210.8	215.8
Insurance	224.8	231.0	237.0	242.8
Electricity	9.8	10.1	10.3	10.6
Review events	17.4	17.9	18.4	18.9
Renewals allowance	1,756.1	1,775.1	1,795.6	1,819.8
Revenue offsets	(1.8)	(1.8)	(1.9)	(2.0)
QCA fee	10.2	10.5	10.8	11.1
Total allowable costs	**3,404.6**	**3,471.2**	**3,537.2**	**3,603.1**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Maranoa River WSS

Table 68: Total allowable costs, Maranoa River WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	6.0	6.2	6.4	6.5
Operations – non-direct	6.6	6.8	7.0	7.1
Maintenance – direct	6.3	6.5	6.7	6.9
Maintenance – non-direct	9.4	9.6	9.9	10.1
Insurance	18.7	19.2	19.7	20.2
Electricity	–	–	–	–
Review events	4.6	4.8	4.9	5.0
Renewals allowance	18.9	19.3	19.5	19.6
Revenue offsets	–	–	–	–
QCA fee	0.5	0.5	0.5	0.5
Total allowable costs	**71.0**	**72.9**	**74.5**	**76.0**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Mareeba-Dimbulah WSS

Table 69: Total allowable costs, Mareeba-Dimbulah WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	350.9	361.1	370.8	379.6
Operations – non-direct	578.9	595.7	611.8	626.3
Maintenance – direct	144.9	149.1	153.1	156.8
Maintenance – non-direct	232.2	239.0	245.4	251.2
Insurance	232.9	239.3	245.5	251.5
Electricity	5.5	5.6	5.8	5.9
Review events	43.6	44.8	46.1	47.3
Renewals allowance	593.5	600.5	618.8	627.3
Revenue offsets	(702.6)	(723.3)	(743.6)	(763.3)
QCA fee	92.6	95.3	98.0	100.8
Total allowable costs	**1,572.3**	**1,607.1**	**1,651.8**	**1,683.5**
Costs transferred to Barron Falls Hydro	(42.9)	(44.1)	(45.3)	(46.1)
Total allowable costs allocated to tariff groups	**1,529.4**	**1,562.9**	**1,606.6**	**1,637.4**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Nogoa-Mackenzie WSS

Table 70: Total allowable costs, Nogoa-Mackenzie WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	1,005.0	1,034.2	1,062.2	1,087.3
Operations – non-direct	1,123.0	1,155.6	1,186.9	1,215.0
Maintenance – direct	457.8	470.9	483.5	495.1
Maintenance – non-direct	227.9	234.5	240.8	246.5
Insurance	798.5	820.5	841.8	862.4
Electricity	26.2	26.9	27.6	28.3
Review events	201.3	207.3	213.1	218.7
Renewals allowance	1,726.8	1,760.5	1,817.4	1,889.9
Revenue offsets	(107.5)	(110.7)	(113.8)	(116.8)
QCA fee	109.3	112.4	115.6	118.9
Total allowable costs	**5,568.2**	**5,712.0**	**5,875.1**	**6,045.4**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Pioneer River WSS

Table 71: Total allowable costs, Pioneer River WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	252.0	259.3	266.3	272.6
Operations – non-direct	254.4	261.8	268.9	275.3
Maintenance – direct	244.7	251.8	258.5	264.7
Maintenance – non-direct	293.9	302.5	310.6	318.0
Insurance	488.4	501.8	514.8	527.4
Electricity	11.2	11.5	11.8	12.1
Review events	70.4	72.5	74.6	76.5
Renewals allowance	963.1	975.1	1,005.2	1,030.9
Revenue offsets	(1.6)	(1.6)	(1.6)	(1.7)
QCA fee	27.0	27.8	28.6	29.4
Total allowable costs	**2,603.6**	**2,662.4**	**2,737.6**	**2,805.2**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Proserpine River WSS

Table 72: Total allowable costs, Proserpine River WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	398.1	409.7	420.7	430.7
Operations – non-direct	453.0	466.1	478.7	490.1
Maintenance – direct	170.6	175.5	180.3	184.5
Maintenance – non-direct	252.7	260.0	267.0	273.4
Insurance	276.5	284.1	291.5	298.6
Electricity	–	–	–	–
Review events	60.4	62.2	63.9	65.6
Renewals allowance	325.4	328.5	334.6	341.5
Revenue offsets	–	–	–	–
QCA fee	23.3	23.9	24.6	25.3
Total allowable costs	**1,959.9**	**2,010.0**	**2,061.4**	**2,109.8**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

St George WSS

Table 73: Total allowable costs, St George WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	451.1	464.2	476.7	488.0
Operations – non-direct	725.1	746.2	766.4	784.6
Maintenance – direct	133.5	137.3	141.0	144.4
Maintenance – non-direct	159.8	164.4	168.9	172.9
Insurance	179.3	184.3	189.1	193.7
Electricity	7.7	7.9	8.1	8.3
Review events	48.4	49.9	51.3	52.6
Renewals allowance	1,116.1	1,136.3	1,146.7	1,161.0
Revenue offsets	(2.3)	(2.4)	(2.5)	(2.5)
QCA fee	46.3	47.6	49.0	50.4
Total allowable costs	**2,865.0**	**2,935.7**	**2,994.6**	**3,053.3**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Three Moon Creek WSS

Table 74: Total allowable costs, Three Moon Creek WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	236.3	243.2	249.7	255.6
Operations – non-direct	320.0	329.3	338.2	346.2
Maintenance – direct	99.1	101.9	104.7	107.2
Maintenance – non-direct	148.2	152.5	156.6	160.3
Insurance	164.7	169.2	173.6	177.9
Electricity	2.6	2.7	2.7	2.8
Review events	32.9	33.9	34.8	35.7
Renewals allowance	549.3	560.8	569.0	593.1
Revenue offsets	–	–	–	–
QCA fee	8.1	8.4	8.6	8.8
Total allowable costs	**1,561.2**	**1,601.7**	**1,637.9**	**1,687.7**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Upper Burnett WSS

Table 75: Total allowable costs, Upper Burnett WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	404.0	415.8	427.0	437.1
Operations – non-direct	465.9	479.4	492.4	504.1
Maintenance – direct	147.6	151.9	155.9	159.7
Maintenance – non-direct	228.4	235.0	241.3	247.0
Insurance	154.7	158.9	163.0	167.0
Electricity	12.4	12.7	13.1	13.4
Review events	23.6	24.3	25.0	25.6
Renewals allowance	555.9	565.3	579.1	588.1
Revenue offsets	(0.8)	(0.8)	(0.8)	(0.8)
QCA fee	15.4	15.9	16.3	16.8
Total allowable costs	**2,007.0**	**2,058.2**	**2,112.3**	**2,158.0**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Upper Condamine WSS

Table 76: Total allowable costs, Upper Condamine WSS ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	579.9	596.7	612.8	627.4
Operations – non-direct	763.7	785.9	807.2	826.3
Maintenance – direct	193.7	199.2	204.6	209.4
Maintenance – non-direct	192.8	198.4	203.7	208.6
Insurance	188.9	194.0	199.1	204.0
Electricity	160.2	164.6	168.9	173.0
Review events	29.4	30.3	31.1	32.0
Renewals allowance	488.0	494.2	514.4	534.9
Revenue offsets	(3.0)	(3.1)	(3.2)	(3.3)
QCA fee	17.3	17.8	18.3	18.8
Total allowable costs	**2,610.8**	**2,678.1**	**2,757.0**	**2,831.1**

Note: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

C.2 Distribution systems

Bundaberg distribution system

Table 77: Total allowable costs, Bundaberg distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	2,211.0	2,275.3	2,336.8	2,392.1
Operations – non-direct	2,731.9	2,811.4	2,887.5	2,956.1
Maintenance – direct	1,996.5	2,053.4	2,108.1	2,158.7
Maintenance – non-direct	1,653.3	1,701.3	1,747.2	1,788.6
Insurance	1,210.6	1,243.9	1,276.2	1,307.5
Electricity	5,435.8	5,654.9	5,904.3	6,120.9
Review events	32.7	33.6	34.6	35.5
Renewals allowance	2,717.6	2,782.9	2,869.7	2,974.5
Revenue offsets	(3.9)	(4.0)	(4.1)	(4.2)
QCA fee	–	–	–	–
Total allowable costs	**17,985.7**	**18,552.6**	**19,160.2**	**19,729.7**
Costs transferred to bulk scheme	(60.2)	(61.9)	(63.8)	(65.5)
Total allowable costs allocated to tariff groups	**17,925.5**	**18,490.7**	**19,096.4**	**19,664.2**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Burdekin-Haughton distribution system

Table 78: Total allowable costs, Burdekin-Haughton distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	5,057.8	5,204.8	5,345.5	5,472.0
Operations – non-direct	4,323.6	4,449.2	4,569.6	4,678.2
Maintenance – direct	3,492.1	3,591.6	3,687.4	3,775.8
Maintenance – non-direct	1,395.9	1,436.4	1,475.2	1,510.2
Insurance	719.6	739.4	758.6	777.2
Electricity	4,129.2	4,269.6	4,430.5	4,574.1
Review events	(301.4)	(310.3)	(319.0)	(327.5)
Renewals allowance	2,806.3	2,942.6	3,082.4	3,149.4
Revenue offsets	(961.7)	(990.1)	(1,017.8)	(1,044.8)
QCA fee	–	–	–	–
Total allowable costs	**20,661.2**	**21,333.2**	**22,012.4**	**22,564.5**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Lower Mary distribution system

Table 79: Total allowable costs, Lower Mary distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	227.9	234.6	240.9	246.6
Operations – non-direct	386.5	397.7	408.5	418.2
Maintenance – direct	234.0	240.7	247.1	253.0
Maintenance – non-direct	225.0	231.6	237.8	243.4
Insurance	96.0	98.7	101.2	103.7
Electricity	364.6	380.2	397.6	411.9
Review events	29.1	30.0	30.8	31.6
Renewals allowance	530.8	544.3	561.4	589.2
Revenue offsets	–	–	–	–
QCA fee	–	–	–	–
Total allowable costs	**2,094.0**	**2,157.6**	**2,225.4**	**2,297.8**
Costs transferred to bulk scheme	(294.2)	(305.2)	(317.2)	(335.7)
Total allowable costs allocated to tariff groups	**1,799.9**	**1,852.4**	**1,908.2**	**1,962.1**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Mareeba-Dimbulah distribution system

Table 80: Total allowable costs, Mareeba-Dimbulah distribution system ($'000, nominal)

Cost	2025-26	2026-27	2027-28	2028-29
Operations – direct	1,890.1	1,945.1	1,997.6	2,044.9
Operations – non-direct	2,346.9	2,415.1	2,480.5	2,539.4
Maintenance – direct	1,476.8	1,518.8	1,559.2	1,596.7
Maintenance – non-direct	1,097.8	1,129.7	1,160.2	1,187.7
Insurance	516.4	530.6	544.4	557.8
Electricity	587.8	609.4	632.5	655.5
Review events	65.1	67.0	68.9	70.7
Renewals allowance	60.7	69.9	101.7	119.0
Revenue offsets	(10.5)	(10.8)	(11.1)	(11.4)
QCA fee	–	–	–	–
Total allowable costs	**8,031.2**	**8,274.8**	**8,533.9**	**8,760.3**

Notes: 1. Total allowable costs include costs allocated to irrigation and non-irrigation customers. 2. Non-direct costs refer to overhead and indirect costs allocated to the scheme. 3. Totals may not add due to rounding.
Source: QCA analysis.

Appendix D: Giru groundwater tariff group

The Giru Groundwater tariff group includes all supplemented water access entitlements (WAEs) held by irrigation customers in Haughton Zone A,[502] which encompasses the area from the supplementation point on the Haughton River from the channel system downstream to the Giru Benefited Groundwater Area (GBGA).[503] In addition to customers located in the GBGA, this tariff group includes a small number of irrigation customers located upstream along the Haughton River.[504]

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. This was a change from the 2012 review,[505] and it reflected our assessment of the water planning and regulatory framework, hydrological issues and cost and service levels.[506]

Sunwater considered that current pricing practices are an appropriate pricing response to the policy settings contained in the *Water Plan (Burdekin Basin) 2007* and said 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.[507]

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 Giru Groundwater tariff group having the same price target as other distribution system customers 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)
- growers have established businesses based on water pricing that recognised the existence of an aquifer and natural yield accessed by irrigators
- there are differences in the level and cost of service for customers in the Giru Groundwater tariff group compared to other distribution system customers, which should be recognised in pricing.[508]

Other stakeholders, however, supported the Giru Groundwater tariff group transitioning to the price target for the Burdekin Channel tariff group.[509] Capacity to pay was also raised as an issue by stakeholders (see Chapter 11).

Our position is that the Giru Groundwater tariff group should have the same price target as other distribution system customers in this scheme. Our reasons for this position are explained below.

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502 Haughton Zone A is defined in Schedule 2B of the *Water Plan (Burdekin Basin) 2007*.
503 The GBGA is defined in Schedules 3 and 10 of the *Water Plan (Burdekin Basin) 2007*.
504 Sunwater, response to RFI 142.
505 In the 2012 review, the recommended price target in the Giru Groundwater tariff group was 51% of the price target for other distribution system customers. 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.
506 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, 2020, pp. 114–121.
507 Sunwater, sub. 9, p. 130.
508 Giru Benefited Area Committee, sub. 51 and sub. 75; Queensland Cane Agriculture and Renewables Limited (QCAR), Australian Cane Farmers Association Limited (ACFA) and AgForce Cane Board Limited (ACL) joint submission, sub. 58 and sub. 82; A. Pierotti & Sons, sub. 64; Bryant Agriculture, sub. 65; The Polagri Trust, sub. 86; Turfgrass Townsville Pty Ltd, sub. 89; A Wessell, sub. 90.
509 BRIA Irrigators, sub. 42, pp. 4, 8–10 and sub. 67.

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 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 water supply scheme.[510] QCAR, ACFA and ACL submitted that the GBGA aquifer has made a material contribution to the irrigation needs of GBGA irrigators and is likely to have done so for at least 35 years, and without the need for supplementation during wet months.[511]

The natural (unsupplemented) yield of the area was acknowledged in the 2004 Interim Resource Operations licence (IROL) for the Burdekin–Haughton water supply scheme. 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.[512] The IROL has since been replaced by the Burdekin–Haughton water supply scheme Resource Operations Licence (ROL),[513] with the IROL now having no legal standing.

Under the current Burdekin Basin water plan (the 2007 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 provision allowed for the allocation and management of sub-artesian water within the GBGA that is connected to the watercourse, with this water becoming part of the Burdekin-Haughton water supply scheme.[514] This approach recognised 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.[515]

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510 QCAR, ACFA and ACL joint submission, sub. 58, p. 4 and Attachment 1, pp. 5–8.
511 QCAR, ACFA and ACL joint submission, sub. 82, p. 8.
512 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.
513 Queensland Government, *Burdekin Haughton Water Supply Scheme Resource Operations Licence*, 2022.
514 Water Resource (Burdekin Basin) Plan 2007, Explanatory Notes for SL 2007, No. 189, made under the Water Act 2000, p. 5.
515 Department of Natural Resources and Water, *Burdekin Basin water resource plan*, consultation report, Queensland Government, September 2007, pp. 23–24.

Canegrowers Burdekin submitted that if our position is not to recognise 19,700 ML of unsupplemented yield, Sunwater should increase its total allocation (by 19,700 ML to 40,249 ML) to ensure certainty of supply to the GBGA.[516] As noted above, groundwater resources in this region are recognised and managed in an integrated way with surface water under the current water planning framework. We understand that the Integrated Quantity and Quality Model (IQQM),[517] which underpins the water plan, took into consideration the combined yields of natural surface water flows, groundwater and supplemented water. The water plan and ROL are the authority for supply of water in the scheme, with each allocation treated as a single supplemented entitlement. From a water planning perspective, it is all the same supplemented water. The current volume held in Haughton Zone A is 44,384 ML.[518]

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 separately recognises 19,700 ML of unsupplemented yield in the GBGA, treating all entitlements in the scheme 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 Giru Groundwater tariff group (as it does for Lower Burdekin Water).[519] 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

The 2020 review found that the same price target 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.

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 GBGA irrigators receive.[520]

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 or service levels. This tariff group corresponds with irrigation customers in Haughton Zone A – that is, it includes irrigation customers located in the GBGA as well as a small number of irrigation customers located upstream along the Haughton River. Given the constraints in the referral regarding the establishment of new tariff groups,[521] we can only recommend an appropriate price for the Giru

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516 Canegrowers Burdekin, sub. 69, p. 1,

517 The IQQM is a hydrological model that underpins the water plan and was used to determine the nominal volumes stated on supplemented water allocations within the Burdekin–Haughton water supply scheme.

518 Medium priority WAEs at 16 January 2025 (see Queensland Government, Business Queensland, *Current location of water allocations in the Burdekin Haughton Water Supply Scheme*, accessed 16 January 2025).

519 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, sch. 2(F)).

520 QCAR, ACFA and ACL joint submission, sub. 58; Giru Benefited Area Committee, sub. 51.

521 The referral states that where new tariff groups are to be considered, we are 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, definition of 'Price Target').

Groundwater tariff group (effectively Haughton Zone A). We cannot separately define a price for GBGA customers only.

In response to the draft report, QCAR, ACFA and ACL submitted that the referral does not prohibit us from applying a different price to GBGA irrigators. They considered that we should assess the relative merits of both the commercial interests of GBGA irrigators in reinstating the former price discount and the inevitable opposing view of other stakeholders with a higher cost to serve and higher capacity to pay.[522]

To clarify, as it is already an established tariff group, a new tariff group would not need to be created for a different price target to apply to the Giru Groundwater tariff group compared to other distribution system customers. For this to occur, we would need to be satisfied that price differentiation for the Giru Groundwater tariff group was justified based on a material difference in costs or service levels compared to other distribution tariff groups.

QCAR, ACFA and ACL said the 50% price discount that previously applied to the Giru Groundwater tariff group should be reinstated as this would align this price with the lower cost to serve and lower level of service they receive and the higher cost of accessing water. They submitted that this would be efficient, promote competition, provide an incentive to use groundwater and support the viability of GBGA customers. Several other individual GBGA stakeholders supported the joint QCAR, ACFA and ACL submission.[523]

Cost

Stakeholders' views on the question of possible cost differences between the tariff groups varied considerably. Material was 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.[524] Information that Sunwater provided 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 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 channel customers, and the potential for greater impacts if any issues arise in the channel system.[525]

GBGA stakeholders submitted information that purported to show a material difference in the cost of supplying the Giru benefited area sub-system compared to other Burdekin Channel sub-systems.[526] 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-systems compared to $42.36/ML for other Burdekin Channel sub-systems.

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522 QCAR, ACFA and ACL joint submission, sub. 82, p. 5.
523 QCAR, ACFA and ACL joint submission, sub. 82, pp. 3–4; Giru Benefited Area Committee, sub. 75; A. Pierotti & Sons, sub. 64; Bryant Agriculture, sub. 65; The Polagri Trust, sub. 86; Turfgrass Townsville Pty Ltd, sub. 89; A Wessel, sub. 90.
524 Giru Benefited Area Committee, sub. 51, p. 3; QCAR, ACFA and ACL joint submission, sub. 58, Attachment 1, p. 21 and Attachment 5 and sub. 82, Appendix 4.
525 QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5, pp. 9, 11 and sub. 82, Appendix 4.
526 QCAR, ACFA and ACL joint submission, sub. 58.

However, this calculated cost of supply for the Giru benefited area sub-system only includes the costs directly attributable to this sub-system, and excludes a share of the costs for Burdekin Channel infrastructure needed to transport water to the Giru benefited area sub-system.[527] 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-system (for example, during dry periods)[528] and also to the Barratta and Haughton channels sub-systems.[529] This shared infrastructure also provides benefits to Giru Groundwater tariff group customers in terms of both the security and flexibility of water supply. For example, Sunwater noted that reflecting a change in irrigation practices, some customers now predominantly access surface water in the sub-system, resulting in more frequent releases from the channel system to maintain operating levels in the Giru Weir and Val Bird Weir.[530]

In response to the draft report, QCAR, ACFA and ACL submitted analysis that they said indicated that if the Giru Groundwater tariff group had paid the same price as channel customers from 2006–2023, Sunwater's average revenue per megalitre released would be $71.73 for Haughton Zone A compared to $44.08 for the channel system average over the same period. They submitted that this indicated our proposed pricing approach meant Haughton Zone A irrigators would suffer price gouging and would be subsidising the channel system.[531]

We have concerns about the relevance of the metric of average revenue per megalitre released for this assessment and also consider that there are some inconsistencies in how it has been defined and applied.[532] When adjustments are made to address these, the average revenue per megalitre supplied is broadly comparable between GBGA and channel customers ($76.26 for GBGA customers and $69.90 for channel customers). The higher average revenue attributable to GBGA customers is primarily due to them having a lower percentage usage of WAEs than channel customers. We also note that having higher average revenue is not in itself evidence of excessive pricing.

BRIA Irrigators supported our preliminary view in the draft report that there does not appear to be a basis for providing a differentiated price to GBGA customers.[533] However, 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.[534] BRIA Irrigators said that Burdekin Channel 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 diverted from the HBS to Haughton Zone A

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527 Also, some costs (such as indirect, corporate overhead and electricity costs) are not included. The data for Burdekin Channel costs comprises all other (i.e. non-Giru Benefited Area) sub-system 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).

528 QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5.

529 Sunwater, response to RFI 114.

530 Sunwater, response to RFI 137.

531 QCAR, ACFA and ACL joint submission, sub. 82, Appendix 3.

532 For distribution system services that mainly incur fixed costs in delivering water, using average revenue per megalitre released will show differences due to relative water usage that do not accurately reflect the cost of serving different customers. In addition, there is an issue with using average revenue per megalitre released, where megalitre released has been measured at the channel intake point (i.e. including distribution losses) for channel customers and at the channel outlet point (i.e. excluding distribution losses) for GBGA customers.

533 BRIA Irrigators, sub. 67, p. 4.

534 BRIA Irrigators, sub. 42, pp. 8–10.

- 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.[535]

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 distribution system infrastructure – the Tom Fenwick pump station, 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-systems. It said that any holistic review of cost allocation would require at least two years given competing stakeholder views and may have unintended outcomes.[536] Nevertheless, Sunwater considered that the Giru benefited area sub-system 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.[537] QCAR, ACFA and ACL did not agree with this view, particularly if a usage based allocation metric which accounts for unsupplemented yield is used, and requested further analysis.[538] Given the limitations on the cost data available at sub-system level,[539] we have been unable to confirm Sunwater's conclusion. However, we consider it likely that costs (on a megalitre of entitlement basis) would be comparable to other sub-systems that use HMC system infrastructure (i.e. the Barratta and Haughton sub-systems).

Classification of assets

Stakeholders raised a concern with the classification of the Haughton River weirs as distribution assets.[540] QCAR, ACFA and ACL said a price review trigger should be included for GBGA irrigators if the Giru Weir and Val Bird Weir are reclassified as bulk assets before 30 June 2009.[541]

Sunwater reclassified all GBGA assets (including Val Bird Weir and Giru Weir) as distribution assets in 2014–15 for the purpose of its cost reporting processes, on the basis that these were previously incorrectly categorised as bulk assets. As a result, costs associated with the GBGA were included under the distribution service contract.[542] Sunwater considered these GBGA assets to be integral to the Burdekin–Haughton distribution system.[543]

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535 BRIA Irrigators, sub. 42, pp. 9–10.
536 Sunwater, sub. 9, p. 130; Sunwater, responses to RFI 114 and RFI 143.
537 Sunwater, response to RFI 114.
538 QCAR, ACFA and ACL joint submission, sub. 82, p. 4.
539 Sunwater, response to RFI 143.
540 Giru Benefited Area Committee, sub. 51, pp. 3–4; QCAR, ACFA and ACL joint submission, sub. 58, p. 6.
541 QCAR, ACFA and ACL joint submission, sub. 82, p. 2.
542 Sunwater, *Responses to feedback from 2015 NSP consultation*, n.d., pp. 5–6.
543 QCA, *Irrigation price review 2020–24, Part B: Sunwater*, final report, January 2020, p. 118.

We also 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.[544] 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.

The categorisation of GBGA assets as part of the distribution system reflects the operational characteristics of this sub-system, with customers relying on the distribution system assets, including the weirs, for supply. We note that this aligns with categorisation of weirs in the Mareeba–Dimbulah distribution system, which also relies on a channel to supplement a watercourse.[545]

Consistent with the requirements of the referral, our task is to recommend prices that transition towards fully recovering 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-system and did not rely on the classification of assets, as suggested by some stakeholders. Consistent with this, we do not consider that a review trigger linked to the classification of assets is appropriate.

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.[546] 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.[547] QCAR, ACFA and ACL submitted that GBGA irrigators incur significant additional costs compared to channel irrigators. They considered that, even though these are not Sunwater's costs, they are relevant to the relative cost of supply and exacerbate the competitive disadvantage faced by GBGA irrigators without the former price discount.[548]

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. These costs will likely vary between irrigators depending on individual circumstances. However, our task under the referral is to assess the prudent and efficient cost of

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544 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.

545 Sunwater, *Final Service and Performance Plan 2023*, Mareeba–Dimbulah Distribution Service Contract, 11 January 2024, p. 8.

546 QCAR, ACFA and ACL joint submission, sub. 58, p. 4.

547 A significant proportion of channel customers appear to have water delivered under pressure. BRIA Irrigators (sub. 42, p. 9) said that less than 50% of channel customers' farms are gravity fed, with the majority incurring re-lift pumping costs; QCAR, ACFA and ACL (sub. 58, Attachment 5, p. 1) submitted that 80% of channel irrigators have water delivered under pressure.

548 QCAR, ACFA and ACL joint submission, sub. 82, p. 6, Appendix 4.

Sunwater providing its service. As such, on-farm costs are outside the scope of our review, and we do not consider it appropriate for distribution system charges to be adjusted to reflect on–farm costs.

GBGA stakeholders also said they received a different level of service because, unlike channel customers, they do not have peak flow entitlements (PFEs).[549] PFEs provide a mechanism for Sunwater to restrict flows to each customer's outlet in the channel system during periods of peak demand.[550]

We understand that the customers in the Giru Benefited Area do not have PFEs due to the different operating characteristics of the sub-system. 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.[551] Sunwater acknowledged that there has been a shift in irrigation practices in the sub-system, 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.[552]

Sunwater said there have been 15 PFE events since 2016, with a maximum duration of 12 days (though typically less), affecting 1,733 offtakes. 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.[553] 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 Groundwater 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

We have considered whether it is appropriate for a different price to apply for the Giru Groundwater tariff group compared to other distribution system customers in this scheme based on differences in cost or service levels. In doing so, we have carefully considered the information provided by stakeholders on this matter.

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549 QCAR, ACFA and ACL joint submission, sub. 58, p. 4, Attachment 5, sch. 2, pp. 10–11.

550 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).

551 QCAR, ACFA and ACL joint submission, sub. 58, p. 3.

552 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.

553 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.

We acknowledge 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 for Haughton Zone A. However, a fully cost-reflective price for this tariff group would need to include all relevant infrastructure costs — that is, bulk costs, a share of the cost of channel assets, the full cost of the infrastructure required to serve customers in Haughton Zone A, and associated overhead and indirect costs. Taking into account the assets required to serve customers in this tariff group, we consider that differences in cost or service levels are unlikely to be material. On this basis, Giru Groundwater tariff group customers should have the same price target as other distribution system customers in this scheme.

Extent of supplementation by the channel system

Where watercourses are 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.[554]

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.[555]

In the draft report, we assessed the extent of supplementation of Haughton Zone A (including the GBGA) by the channel system using more recent data (2002–03 to 2022–23). This updated analysis showed that, on average, water diverted from the channel system is around 97% of total water used by customers along the Haughton River.[556] We note that being part of a supplemented system provides GBGA customers with benefits from the water supply security and flexibility of supply that the bulk and distribution system infrastructure provides.

In response to the draft report, QCAR, ACFA and ACL submitted that our approach of considering the average level of supplementation over a long period is not appropriate when assessing the existence and contribution of the natural yield of the Haughton River as a water source. They presented alternative estimates of Haughton Zone A efficiency that purported to show the use of water exceeding the diversion of water by between 120% and 270% in any one year. In deriving

554 BRIA Irrigators, sub. 42, p. 9.
555 QCA, *Rural irrigation price review 2020–24, Part B: Sunwater*, final report, 2020, pp. 118–120.
556 To assess the extent of supplementation of Haughton Zone A by the channel system, the 'efficiency' of the system can be calculated by dividing metered usage (extractions) by Giru Groundwater tariff group customers by diversions (releases) from the HBS. The updated data shows an average efficiency for the period 2002–03 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. In calculating this, we have used data on extractions and releases from Table 4.4 in the 2020 Water Solutions report, as well as more recent Sunwater data (see Water Solutions, *Rural irrigation Price Review 2020-24, Assessment of Hydrologic Factors: Further Assessment – Giru Benefited Groundwater Area*, prepared for the QCA, January 2020, p. 21; Sunwater, sub. 22, p. 36).

these estimates, they adjusted the diversion (release) data for Haughton Zone A for an estimate of losses in the Haughton River.[557]

We have adopted the same approach as in the 2020 review to assess the extent of supplementation of Haughton Zone A by the channel system. This approach was informed by the report provided by Water Solutions, our consultant in the 2020 review. Water Solutions' 2020 report focused on efficiency during dry periods in reaching its key conclusion that the 'review of release and extraction data indicates that GBGA irrigators are receiving little contribution from non-HBS Release sources in dry periods, and thus that there does not appear to be a strong hydrologic basis for differential pricing of GBGA MP users'.[558] Our updated analysis indicates that this situation has not materially changed since the 2020 review, with the lowest efficiency over the period assessed (2002–03 to 2022–2023) being 66% in 2013–14.

In terms of the proposed adjustment of the diversion (release) data for losses in the Haughton River in assessing the extent of supplementation of Haughton Zone A, it should be noted that distribution losses in the Burdekin-Haughton distribution system are only associated with delivery of water from each diversion point from the Burdekin River through the constructed channel system (i.e. up to the HBS). Losses arising from transmission through a watercourse (e.g. Haughton River) are not included in distribution loss calculations.[559] We note that there appears to have been a change over time in the water planning framework in the treatment of distribution losses in this scheme.[560]

We consider that our estimates of the extent of supplementation of Haughton Zone A by the channel system should be consistent with the current water planning framework. Given this, it is not appropriate to adjust the underlying data for Haughton Zone A to account for distribution losses in the Haughton River.

GBGA stakeholders have also said that the assessment of the extent of supplementation of Haughton Zone A by the channel system needs to take into account any temporary transfers of water allocations for use by non-GBGA irrigators in the upper Haughton Zone A.[561] In the 2020 review, 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.

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557 QCAR, ACFA and ACL joint submission, sub. 82, pp. 7–9, Appendix 2. This alternative calculation adjusted the diversion (release) data for Haughton Zone A to reflect channel efficiency levels, on the basis that this is an acceptable proxy for Haughton Zone A efficiency.

558 Water Solutions, *Rural irrigation Price Review 2020–24: Assessment of Hydrologic Factors: Further Assessment—Giru Benefited Groundwater Area*, prepared for the QCA, January 2020, p. 36.

559 Sunwater, response to RFI 115. Sunwater noted that watercourse losses are instead considered as part of the announced allocation calculations through transmission and operational allowance factors which are published in the operations manual (Department of Natural Resources and Mines, *Burdekin Basin, Burdekin Haughton Water Supply Scheme Operations Manual*, May 2017, Chapter 3).

560 The 2004 IROL specified a total distribution loss allocation of 206,737 ML, which included a component for losses in the Haughton River for delivery of that portion of the Haughton River/Giru benefited area allocation supplied from the Burdekin River. However, the 2009 Resource Operations Plan considered distribution losses to be water lost when delivering water for water allocations in reticulated areas via constructed infrastructure. The level of distribution losses in the 2004 IROL is the same as the existing level of distribution loss WAE in the Burdekin-Haughton scheme (see Department of Natural Resources and Mines, *Interim Resource Operations Licence for Burdekin Haughton Water Supply Scheme*, issued to Sunwater, Queensland Government, December 2004, pp. 25–26; Department of Environment and Resource Management, *Burdekin Basin Resource Operations Plan*, December 2009, amended October 2010, revision 2, p. 56).

561 Giru Benefited Area Committee, sub. 51, p. 4; QCAR, ACFA and ACL joint submission, sub. 58, Attachment 5, pp. 3–4.

Summary

We have assessed whether it is appropriate for a different price target to apply to the Giru Groundwater tariff group than for other distribution system customers in this scheme. In doing so, we have considered each of the matters we are required to consider in the referral and the *Queensland Competition Authority Act 1997* (QCA Act).[562]

Our assessment found that:

- as the current water planning and regulatory framework treats all entitlements in Haughton Zone A (including GBGA) as supplemented, there is no 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.

Our position is therefore that the Giru Groundwater tariff group should have the same price target as other distribution system customers in this scheme.

[562] In accordance with sections 24(1)(b) and 26 of the QCA Act. Also, see Appendix G, which explains how we have considered each of the matters we are required to consider.

Appendix E: Price targets

E.1 Bulk water supply schemes

Table 81 below shows the 2024–25 price and price targets over the price path period for Sunwater's bulk schemes.

Table 81: Price targets – bulk schemes ($/ML, nominal)

Tariff group	Price	2024–25 price	Price targets			
			2025–26	2026–27	2027–28	2028–29
Barker Barambah River	Part A	38.51	51.81	53.30	54.83	56.40
	Part B	4.55	8.80	9.05	9.31	9.58
Barker Barambah Redgate Relift	Part A	38.51	52.43	53.94	55.49	57.08
	Part B	24.65	36.01	37.05	38.11	39.20
Bowen Broken Rivers	Part A	7.80	9.76	10.04	10.32	10.62
	Part B	8.04	7.32	7.53	7.75	7.97
Boyne River and Tarong	Part A	19.05	15.94	16.40	16.87	17.35
	Part B	2.14	3.21	3.30	3.40	3.49
Bundaberg	Part A	13.13	13.21	13.59	13.97	14.38
	Part B	1.08	1.48	1.52	1.57	1.61
Burdekin-Haughton	Part A	4.19	5.65	5.81	5.98	6.15
	Part B	0.37	0.77	0.79	0.81	0.84
Callide Valley	Part A	30.39	106.28	109.33	112.47	115.70
	Part B	9.50	13.19	13.56	13.95	14.35
Chinchilla Weir	Part A	21.32	25.58	26.32	27.07	27.85
	Part B	4.03	5.42	5.58	5.74	5.90
Cunnamulla	Part A	35.84	38.92	40.03	41.18	42.37
	Part B	2.07	1.43	1.47	1.51	1.56
Dawson Valley River (high priority)	Part A	56.91	105.12	108.13	111.24	114.43
	Part B	1.73	1.95	2.01	2.07	2.13
Dawson Valley River (medium priority)	Part A	23.13	21.36	21.97	22.60	23.25
	Part B	1.73	1.95	2.01	2.07	2.13
Eton (high B priority)	Part A	35.87	32.99	33.94	34.91	35.91
	Part B	4.39	5.59	5.75	5.92	6.09
Eton (high A priority local management supply)	Part A	133.91	119.35	122.78	126.30	129.93
	Part B	4.39	5.59	5.75	5.92	6.09
Eton risk priority[a]	Part B	n.a.	38.58	39.69	40.83	42.00
Lower Fitzroy	Part A	13.22	15.71	16.16	16.63	17.10
	Part B	1.08	1.72	1.77	1.82	1.87

Tariff group	Price	2024–25 price	Price targets			
			2025–26	2026–27	2027–28	2028–29
Lower Mary – Mary Barrage	Part A	6.79	6.43	6.61	6.80	6.99
	Part B	0.94	1.17	1.20	1.24	1.27
Lower Mary – Tinana & Teddington	Part A	19.26	21.12	21.73	22.35	22.99
	Part B	12.93	16.88	17.36	17.86	18.37
Macintyre Brook	Part A	63.30	117.94	121.33	124.81	128.39
	Part B	4.39	7.87	8.10	8.33	8.57
Maranoa River	Part A	68.27	84.58	87.01	89.51	92.08
	Part B	71.03	111.05	114.23	117.51	120.88
Mareeba-Dimbulah – Access Charge	$/cust	751.50	773.07	795.26	818.08	841.56
Mareeba-Dimbulah – River Tinaroo/Barron	Part A	6.03	3.17	3.26	3.35	3.45
	Part B	0.70	0.59	0.61	0.63	0.65
Nogoa-Mackenzie (medium priority)	Part A	7.25	10.89	11.20	11.52	11.85
	Part B	0.92	1.94	2.00	2.05	2.11
Nogoa-Mackenzie (medium priority local management supply)	Part A	7.09	10.89	11.20	11.52	11.85
	Part B	0.90	1.94	2.00	2.05	2.11
Nogoa-Mackenzie (high priority)	Part A	41.73	70.79	72.82	74.91	77.06
	Part B	0.90	1.94	2.00	2.05	2.11
Pioneer River	Part A	21.90	21.42	22.03	22.67	23.32
	Part B	4.01	4.35	4.48	4.61	4.74
Proserpine River	Part A	15.16	16.83	17.31	17.81	18.32
	Part B	3.71	4.87	5.01	5.16	5.31
St George (medium priority)	Part A	24.48	31.57	32.48	33.41	34.37
	Part B	1.16	1.63	1.68	1.73	1.78
St George (high priority local management supply)	Part A	39.94	49.67	51.10	52.57	54.07
	Part B	1.16	1.63	1.68	1.73	1.78
Three Moon Creek	Part A	37.25	68.93	70.91	72.95	75.04
	Part B	5.22	11.39	11.72	12.06	12.40
Upper Burnett – Regulated Section of the Nogo/Burnett River	Part A	43.59	48.87	50.27	51.71	53.20
	Part B	4.46	7.08	7.28	7.49	7.70
Upper Burnett – John Goleby Weir	Part A	41.82	48.87	50.27	51.71	53.20
	Part B	4.46	7.08	7.28	7.49	7.70
Upper Condamine –Sandy Creek or Condamine River	Part A	16.89	23.39	24.07	24.76	25.47
	Part B	6.33	10.71	11.02	11.33	11.66
Upper Condamine – North Branch	Part A	16.97	24.53	25.23	25.95	26.70
	Part B	19.14	32.05	32.97	33.92	34.89

Tariff group	Price	2024–25 price	Price targets			
			2025–26	2026–27	2027–28	2028–29
Upper Condamine – Risk A	Part A	13.86	22.85	23.51	24.18	24.88
	Part B	20.69	32.05	32.97	33.92	34.89

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 82 below shows the 2024–25 price and price targets over the price path period for Sunwater's distribution systems.

Table 82: Price targets – distribution systems ($/ML, nominal)

Tariff group	Price	2024–25 price	Price targets			
			2025–26	2026–27	2027–28	2028–29
Bundaberg channel	Part A	13.13	13.21	13.59	13.97	14.38
	Part B	1.08	1.48	1.52	1.57	1.61
	Part C	54.54	89.37	91.93	94.57	97.29
	Part D	58.08	52.82	54.33	55.89	57.50
	Fixed	**67.67**	**102.58**	**105.52**	**108.54**	**111.67**
	Volumetric	**59.16**	**54.30**	**55.85**	**57.46**	**59.11**
Burdekin channel	Part A	4.10	5.65	5.81	5.98	6.15
	Part B	0.36	0.77	0.79	0.81	0.84
	Part C	45.87	49.90	51.33	52.80	54.32
	Part D	24.88	21.67	22.29	22.93	23.59
	Fixed	**49.97**	**55.55**	**57.14**	**58.78**	**60.47**
	Volumetric	**25.24**	**22.44**	**23.08**	**23.74**	**24.43**
Burdekin – Giru Groundwater	Part A	4.10	5.65	5.81	5.98	6.15
	Part B	0.36	0.77	0.79	0.81	0.84
	Part C	29.40	49.90	51.33	52.80	54.32
	Part D	16.43	21.67	22.29	22.93	23.59
	Fixed	**33.50**	**55.55**	**57.14**	**58.78**	**60.47**
	Volumetric	**16.79**	**22.44**	**23.08**	**23.74**	**24.43**
Burdekin – Glady's Lagoon (other than Natural Yield)	Part A	4.10	5.65	5.81	5.98	6.15
	Part B	0.36	0.77	0.79	0.81	0.84
	Part C	45.87	49.90	51.33	52.80	54.32
	Part D	24.88	21.67	22.29	22.93	23.59
	Fixed	**49.97**	**55.55**	**57.14**	**58.78**	**60.47**
	Volumetric	**25.24**	**22.44**	**23.08**	**23.74**	**24.43**

Tariff group	Price	2024 -25 price	Price targets			
			2025-26	2026-27	2027-28	2028-29
Lower Mary channel	Part A	6.64	6.43	6.61	6.80	6.99
	Part B	0.92	1.17	1.20	1.24	1.27
	Part C	59.07	110.10	113.26	116.51	119.86
	Part D	71.62	49.66	51.08	52.55	54.06
	Fixed	**65.71**	**116.53**	**119.87**	**123.31**	**126.85**
	Volumetric	**72.54**	**50.83**	**52.28**	**53.79**	**55.33**
Mareeba-Dimbulah – outside a relift up to 100 ML	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	57.63	69.95	71.96	74.02	76.15
	Part D	6.31	8.03	8.26	8.50	8.74
	Fixed	**63.53**	**73.12**	**75.22**	**77.37**	**79.60**
	Volumetric	**6.99**	**8.62**	**8.87**	**9.13**	**9.39**
Mareeba-Dimbulah – outside a relift 100 ML to 500 ML	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	50.82	61.69	63.46	65.28	67.15
	Part D	6.31	8.03	8.26	8.50	8.74
	Fixed	**56.72**	**64.86**	**66.72**	**68.63**	**70.60**
	Volumetric	**6.99**	**8.62**	**8.87**	**9.13**	**9.39**
Mareeba-Dimbulah – outside a relift over 500 ML	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	39.46	47.90	49.27	50.69	52.14
	Part D	6.31	8.03	8.26	8.50	8.74
	Fixed	**45.36**	**51.07**	**52.53**	**54.04**	**55.59**
	Volumetric	**6.99**	**8.62**	**8.87**	**9.13**	**9.39**
Mareeba-Dimbulah – river sup. Streams & Walsh River	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	27.16	32.28	33.20	34.16	35.14
	Part D	3.79	4.82	4.96	5.10	5.24
	Fixed	**33.06**	**35.45**	**36.46**	**37.51**	**38.59**
	Volumetric	**4.47**	**5.41**	**5.57**	**5.73**	**5.89**
Mareeba-Dimbulah – relift	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.64	0.59	0.61	0.63	0.65
	Part C	51.02	72.37	74.45	76.59	78.78
	Part D	94.21	95.14	97.87	100.68	103.57
	Fixed	**56.92**	**75.54**	**77.71**	**79.94**	**82.23**
	Volumetric	**94.85**	**95.73**	**98.48**	**101.31**	**104.22**

Source: QCA analysis.

Appendix F: Recommended prices

F.1 Bulk water supply schemes

Table 83 shows the 2024–25 price and recommended prices over the price path period for Sunwater's bulk schemes.

Table 83: Recommended prices – bulk schemes ($/ML, nominal)

Tariff group	Price	2024–25 price	Recommended prices			
			2025–26	2026–27	2027–28	2028–29
Barker Barambah River	Part A	38.51	42.23	46.13	50.22	54.50
	Part B	4.55	4.68	4.81	4.95	5.10
Barker Barambah Redgate Relift	Part A	38.51	42.23	46.13	50.22	54.50
	Part B	24.65	25.36	26.09	26.83	27.60
Bowen Broken Rivers	Part A	7.80	9.76	10.04	10.32	10.62
	Part B	8.04	7.32	7.53	7.75	7.97
Boyne River and Tarong	Part A	19.05	15.94	16.40	16.87	17.35
	Part B	2.14	3.21	3.30	3.40	3.49
Bundaberg	Part A	13.13	13.21	13.59	13.97	14.38
	Part B	1.08	1.48	1.52	1.57	1.61
Burdekin-Haughton	Part A	4.19	5.65	5.81	5.98	6.15
	Part B	0.37	0.77	0.79	0.81	0.84
Callide Valley	Part A	30.39	33.88	37.54	41.38	45.41
	Part B	9.50	9.77	10.05	10.34	10.64
Chinchilla Weir	Part A	21.32	24.54	26.32	27.07	27.85
	Part B	4.03	4.15	5.58	5.74	5.90
Cunnamulla	Part A	35.84	38.92	40.03	41.18	42.37
	Part B	2.07	1.43	1.47	1.51	1.56
Dawson Valley River (high priority)	Part A	56.91	61.16	65.60	70.25	75.11
	Part B	1.73	1.78	1.83	1.88	1.94
Dawson Valley River (medium priority)	Part A	23.13	21.36	21.97	22.60	23.25
	Part B	1.73	1.95	2.01	2.07	2.13
Eton (high B priority)	Part A	35.87	32.99	33.94	34.91	35.91
	Part B	4.39	5.59	5.75	5.92	6.09
Eton (high A priority local management supply)	Part A	133.91	119.35	122.78	126.30	129.93
	Part B	4.39	5.59	5.75	5.92	6.09
Eton risk priority[a]	Part B	n.a.	38.58	39.69	40.83	42.00
Lower Fitzroy	Part A	13.22	15.71	16.16	16.63	17.10
	Part B	1.08	1.61	1.77	1.82	1.87

Bulk water supply scheme	Price	2024–25 price	Recommended prices			
			2025–26	2026–27	2027–28	2028–29
Lower Mary – Mary Barrage	Part A	6.79	6.43	6.61	6.80	6.99
	Part B	0.94	1.17	1.20	1.24	1.27
Lower Mary – Tinana & Teddington	Part A	19.26	21.12	21.73	22.35	22.99
	Part B	12.93	14.60	17.36	17.86	18.37
Macintyre Brook	Part A	63.30	67.73	72.36	77.20	82.26
	Part B	4.39	4.52	4.65	4.78	4.92
Maranoa River	Part A	68.27	72.84	77.62	82.61	87.83
	Part B	71.03	73.07	75.17	77.32	79.54
Mareeba-Dimbulah – Access Charge	$/cust	751.50	773.07	795.26	818.08	841.56
Mareeba-Dimbulah – River Tinaroo/Barron	Part A	6.03	3.17	3.26	3.35	3.45
	Part B	0.70	0.59	0.61	0.63	0.65
Nogoa-Mackenzie (medium priority)	Part A	7.25	10.07	11.20	11.52	11.85
	Part B	0.92	0.95	2.00	2.05	2.11
Nogoa-Mackenzie (medium priority local management supply)	Part A	7.09	9.91	11.20	11.52	11.85
	Part B	0.90	0.93	2.00	2.05	2.11
Nogoa-Mackenzie (high priority)	Part A	41.73	45.54	49.54	53.72	58.11
	Part B	0.90	0.93	0.95	0.98	1.01
Pioneer River	Part A	21.90	21.42	22.03	22.67	23.32
	Part B	4.01	4.35	4.48	4.61	4.74
Proserpine River	Part A	15.16	16.83	17.31	17.81	18.32
	Part B	3.71	4.87	5.01	5.16	5.31
St George (medium priority)	Part A	24.48	27.80	31.28	33.41	34.37
	Part B	1.16	1.19	1.23	1.73	1.78
St George (high priority local management supply)	Part A	39.94	43.70	47.64	51.77	54.07
	Part B	1.16	1.19	1.23	1.26	1.78
Three Moon Creek	Part A	37.25	40.93	44.79	48.85	53.09
	Part B	5.22	5.37	5.52	5.68	5.85
Upper Burnett – Regulated Section of the Nogo/Burnett River	Part A	43.59	47.45	50.27	51.71	53.20
	Part B	4.46	4.59	5.95	7.49	7.70
Upper Burnett – John Goleby Weir	Part A	41.82	45.63	49.63	51.71	53.20
	Part B	4.46	4.59	4.72	6.96	7.70
Upper Condamine –Sandy Creek or Condamine River	Part A	16.89	19.99	23.25	24.76	25.47
	Part B	6.33	6.51	6.70	8.82	11.66
Upper Condamine – North Branch	Part A	16.97	20.07	23.33	25.95	26.70
	Part B	19.14	19.69	20.25	21.65	25.12

Tariff group	Price	2024–25 price	Recommended prices			
			2025–26	2026–27	2027–28	2028–29
Upper Condamine – Risk A	Part A	13.86	16.87	20.04	23.38	24.88
	Part B	20.69	21.28	21.89	22.52	25.19

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 84 shows the 2024–25 price and recommended prices over the price path period for Sunwater's distribution systems.

Table 84: Recommended prices – distribution systems ($/ML, nominal)

Tariff group	Price	2024–25 price	Recommended prices			
			2025–26	2026–27	2027–28	2028–29
Bundaberg channel	Part A	13.13	13.21	13.59	13.97	14.38
	Part B	1.08	1.48	1.52	1.57	1.61
	Part C	54.54	59.02	63.40	67.99	72.78
	Part D	58.08	52.82	54.33	55.89	57.50
	Fixed	**67.67**	**72.23**	**76.99**	**81.96**	**87.16**
	Volumetric	**59.16**	**54.30**	**55.85**	**57.46**	**59.11**
Burdekin channel	Part A	4.10	5.65	5.81	5.98	6.15
	Part B	0.36	0.77	0.79	0.81	0.84
	Part C	45.87	48.37	51.33	52.80	54.32
	Part D	24.88	21.67	22.29	22.93	23.59
	Fixed	**49.97**	**54.02**	**57.14**	**58.78**	**60.47**
	Volumetric	**25.24**	**22.44**	**23.08**	**23.74**	**24.43**
Burdekin – Giru Groundwater	Part A	4.10	5.65	5.81	5.98	6.15
	Part B	0.36	0.37	0.38	0.39	0.40
	Part C	29.40	31.42	35.02	38.78	42.74
	Part D	16.43	16.90	17.39	17.89	18.40
	Fixed	**33.50**	**37.07**	**40.83**	**44.76**	**48.89**
	Volumetric	**16.79**	**17.27**	**17.77**	**18.28**	**18.80**
Burdekin – Glady's Lagoon (other than Natural Yield)	Part A	4.10	5.65	5.81	5.98	6.15
	Part B	0.36	0.77	0.79	0.81	0.84
	Part C	45.87	48.37	51.33	52.80	54.32
	Part D	24.88	21.67	22.29	22.93	23.59
	Fixed	**49.97**	**54.02**	**57.14**	**58.78**	**60.47**
	Volumetric	**25.24**	**22.44**	**23.08**	**23.74**	**24.43**

Tariff group	Price	2024 -25 price	Recommended prices			
			2025-26	2026-27	2027-28	2028-29
Lower Mary channel	Part A	6.64	6.43	6.61	6.80	6.99
	Part B	0.92	1.17	1.20	1.24	1.27
	Part C	59.07	63.78	68.30	73.03	77.97
	Part D	71.62	49.66	51.08	52.54	54.06
	Fixed	**65.71**	**70.21**	**74.91**	**79.83**	**84.96**
	Volumetric	**72.54**	**50.83**	**52.28**	**53.78**	**55.33**
Mareeba-Dimbulah – outside a relift up to 100 ML	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	57.63	64.80	69.34	74.02	76.15
	Part D	6.31	6.60	6.79	7.06	8.74
	Fixed	**63.53**	**67.97**	**72.60**	**77.37**	**79.60**
	Volumetric	**6.99**	**7.19**	**7.40**	**7.69**	**9.39**
Mareeba-Dimbulah – outside a relift 100 ML to 500 ML	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	50.82	57.79	62.14	65.28	67.15
	Part D	6.31	6.60	6.79	8.39	8.74
	Fixed	**56.72**	**60.96**	**65.40**	**68.63**	**70.60**
	Volumetric	**6.99**	**7.19**	**7.40**	**9.02**	**9.39**
Mareeba-Dimbulah – outside a relift over 500 ML	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	39.46	46.10	49.27	50.69	52.14
	Part D	6.31	6.60	7.64	8.50	8.74
	Fixed	**45.36**	**49.27**	**52.53**	**54.04**	**55.59**
	Volumetric	**6.99**	**7.19**	**8.25**	**9.13**	**9.39**
Mareeba-Dimbulah – river sup. Streams & Walsh River	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.68	0.59	0.61	0.63	0.65
	Part C	27.16	32.28	33.20	34.16	35.14
	Part D	3.79	4.82	4.96	5.10	5.24
	Fixed	**33.06**	**35.45**	**36.46**	**37.51**	**38.59**
	Volumetric	**4.47**	**5.41**	**5.57**	**5.73**	**5.89**
Mareeba-Dimbulah – relift	Part A	5.90	3.17	3.26	3.35	3.45
	Part B	0.64	0.59	0.61	0.63	0.65
	Part C	51.02	58.00	62.35	66.91	71.67
	Part D	94.21	95.14	97.87	100.68	103.56
	Fixed	**56.92**	**61.17**	**65.61**	**70.26**	**75.12**
	Volumetric	**94.85**	**95.73**	**98.48**	**101.31**	**104.21**

Source: QCA analysis.

Appendix G: Matters we considered

In Table 85, 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.[563]

Table 85: Matters we considered in conducting our review

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 allowable 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 our price recommendations reflect the application of the pricing principles in the referral (Chapter 10), which means that many customers would pay prices that are below cost-reflective levels. As the under-recovered costs are to be 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 because it is government-owned. In accordance with these principles, we determined 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 assessed Sunwater's proposed costs for prudency and efficiency. We had regard to benchmarking, where we considered this to be appropriate, including considering benchmark analysis undertaken by AtkinsRéalis to inform potential efficiency gains for opex and renewals (Chapters 4 and 5). However, we considered that the lack of sufficient comparative data prevents detailed and conclusive benchmarking analysis of Sunwater's costs. We also considered normalised weighted average cost of capital (WACC) outcomes (Chapter 6).
The standard of the goods or services, including quality,	In assessing the prudency and efficiency of costs, we considered Sunwater's operating environment, regulatory obligations and

[563] We may also consider other matters (QCA Act, s. 26(3)).

reliability and safety (QCA Act, s. 26(1)(d)(iii))	agreements with customers about service quality (Chapters 4 and 5).
The appropriate rate of return on assets (QCA Act, s. 26(1)(e))	We determined 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 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 aimed 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 recommended 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 allowable 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 our price recommendations reflect the application of 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 aimed 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 recommended 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. Our approach to estimating inflation is explained 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 determined would 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 considered 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 allowable costs of supplying irrigation services for each tariff group (Chapter 9). This would prevent Sunwater from earning excessive profits due to its monopoly position. Irrigation customers are further protected from the exercise of monopoly power because our price recommendations reflect the application of 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 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 the prudent and efficient allowable costs of supplying irrigation services over time. The recommended prices, combined with CSO payments to make up the revenue shortfall, would provide Sunwater with sufficient revenue to continue to invest in providing irrigation services, which would benefit irrigation customers and regional communities. In Chapter 11, we considered the impacts of our price recommendations on irrigation customers and estimated the revenue shortfall for each tariff group. We also discussed 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.
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 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). We provide information to help customers understand the potential impacts of our 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 provided an allowance for Sunwater to recover the prudent and efficient costs of meeting regulatory and legislative requirements, including those related to environmental obligations. For example, we provided an allowance for 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)).	Consistent with Sunwater's legitimate commercial interests, we expect that Sunwater would recover sufficient revenue to recover its prudent and efficient allowable costs and an allowance for dam safety upgrade capex through a combination of irrigation prices and CSO payments (Chapters 4 to 7). We also recommended mechanisms to manage the risks associated with material changes in allowable costs that are outside Sunwater's control (Chapter 12). However, in accordance with the terms of the referral, we did not provide Sunwater with a return on pre-2000 assets. Consistent with the interests of customers, recommended prices are capped at the price target, which reflects the prudent and efficient allowable costs of supplying irrigation services for each tariff group. However, the price target would not recover the full costs of supply for all tariff groups because it excludes a return on pre-2000 assets and dam safety upgrade capex (Chapter 9). Many customers would benefit from prices that are below the price target for some of all of the price path period, and all customers would be protected from large cost increases, because of the cap on annual price increases (Chapters 10 and 11).
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 H: 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, it was suggested that we 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.[564]	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.
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.[565]	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.
A stakeholder questioned why the historical surplus in the Dawson Valley scheme was not being allocated to the annuity balance for the future benefit of the scheme. They said that any future surpluses in this scheme should be retained within the scheme and not allocated to Sunwater's general revenue.[566]	Most of the revenue in this scheme comes from non-irrigation customers, which is not within the scope of this review. The annuity balance changes over time due to the difference between renewals annuity revenue and renewals expenditure, with adjustments for interest using the post-tax nominal WACC.
If Sunwater is allowed to allocate costs to Orange Creek Weir, then it should be required to include the usable volume in the announced allocations for the scheme.[567]	Announced allocations are calculated in accordance with the scheme's operations manual, which excludes Orange Creek Weir from the calculation of usable volume for the Upper Dawson sub-scheme. The manual does provide for the release of available water stored in Orange Creek Weir on activation of the release period by Sunwater.[568]
The government and Sunwater should consider innovative arrangements for underutilised infrastructure, such as discounted tariffs, multi–	The pricing arrangements suggested for underutilised infrastructure are a matter for the government and Sunwater and are beyond the scope of the referral.

564 Bundaberg Regional Irrigators Group, sub. 41, p. 6.
565 Lower Burdekin Riparian Growers, sub. 53, pp. 1–2.
566 Hutchinson Ag, sub. 76, p. 2.
567 Hutchinson Ag, sub. 76, p. 1.
568 Sunwater, *Dawson Valley Water Supply Scheme Resource Operations Licence Operations Manual*, Water Plan (Fitzroy Basin) 2011, September 2022, pp. 8, 11.

Issue raised	QCA response
year agreements and investment payback periods.[569]	
Increased bulk water prices will place financial strain on local governments. This may lead to councils needing to cut essential services funding and/or increase rates, thereby exacerbating the cost of living crisis.[570]	We acknowledge the concerns raised; however, our review is limited to irrigation prices.

[569] Canegrowers, sub. 68, p. 4.
[570] qldwater, sub. 81, p. 3.

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
2021 inflation report	the QCA's 2021 inflation forecasting position paper
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
ATO	Australian Taxation Office
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 relationship management
CSO	community service obligation
current price path period	the period 1 July 2020 to 30 June 2025
DAFF	Department of Agriculture, Fisheries and Forestry
DAV	declared asset value
DLGWV	Department of Local Government, Water and Volunteers
EA	enterprise agreement
ECPT	electricity cost pass-through
EICL	Eton Irrigation Cooperative Limited
EOI	expression of interest
ESC	Essential Services Commission
ESCOSA	Essential Services Commission of South Australia

FTE	full-time equivalent
GBA	Giru Benefited Area
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
IQQM	Integrated Quantity and Quality Model
IROL	interim resource operations licence
ISR	industrial special risk
KBR	Kellog, Brown and Root
LMA	local management arrangement
MDB	Murray-Darling Basin
ML	megalitre
MP	medium priority
MRP	market risk premium
NSP	network service plan
opex	operating expenditure
price path period	the period 1 July 2025 to 30 June 2029
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
QRIDA	Queensland Rural and Industry Development Authority
QTC	Queensland Treasury Corporation
RAB	regulatory asset base
rate of return review	the QCA's report on approaches to determining reasonable rates of return
RBA	Reserve Bank of Australia

referral	the referral notice for the QCA to conduct this review, which was issued by the former treasurer in March 2023 under section 23 of the QCA Act.
regulated schemes	the water supply schemes listed in schedule 1 of the referral
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
service contract	a group of assets that generate cash inflows largely independent of cash flows from other groups of assets (e.g. bulk water service contract and distribution service contract within a regulated scheme)
SPP	service and performance plan
totex	total expenditure
WACC	weighted average cost of capital
WAE	water access entitlement
WPI	wage price index
WRP	water resource plan
WSI	water sharing index
WSS	water supply scheme

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