BRIA submission to the QCA

Burdekin River Irrigation Area Irrigators Ltd (BRIA)

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FINAL

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Executive Summary

This submission has been prepared by Jacobs on behalf by the Burdekin River Irrigation Area Irrigators Limited (BRIA). It is presented to the Queensland Competition Authority (QCA) in response to SunWater's Network Service Plans (NSP), submissions, model and indicative proposed prices.

BRIA wish to draw attention to the proposed high cost increases under SunWater's management. This is an established irrigation scheme, which by now, should be operating efficiently and operated with only modest CPI-like price increases.

The cumulative impact of the proposed $2.38 per ML annual real price increases year-on-year will impact severely on the financial viability of irrigated agriculture in the region, and any additional increase in prices cannot be contemplated. The cost increases and allocation of costs to the Burdekin scheme proposed by SunWater are not sustainable for irrigators. A revised approach is required that more fairly allocates prudent and efficient costs to the beneficiaries of this scheme, which includes the north Queensland regional community.

SunWater's asset management system should be investigated to ensure it is fit for purpose. The large increases in capital expenditure proposed under this system are not well justified and may not be prudent or efficient. Sample analysis carried out by Jacobs indicates that some of the capital expenditure proposed should not be recovered from irrigation customers. Details of proposed capital expenditure beyond 2023-24 are not well detailed by SunWater and the large capital expenditure proposed for 2050 is not justified.

Capital works to improve dam safety and provide flood protection for downstream communities are outside the service agreement between SunWater and its irrigation customers. Irrigation customers are neither the impactor nor the beneficiary of this expenditure. Dam improvement programs to ensure dam safety, if included in the pricing model, would significantly increase costs to customers – substantially exceeding capacity to pay. All costs related to dam safety improvements should, therefore, be excluded from prices. Inclusion of capital costs for dam safety would lead to a significant decrease in agricultural activity in the region, and potentially the closure of one of the four sugar mills in the Burdekin region. There needs to be a clear delineation between dam safety capital expenditure and other capital costs as part of the pricing regime.

SunWater's proposed operating costs were developed using a base year that is a pure forecast. The base year – contrary to good regulatory economic practice – contains no actuals and appears to be totally divorced from previous years of actuals, which were broadly in-line with QCA's cost allowances in the previous review. SunWater's last year of actuals is materially lower than the proposed base year costs – but no comparison is made in SunWater's submission. This does not appear to be a transparent approach with a strong justification.

BRIA recommend that the QCA instruct SunWater to develop an opex base year that relates to actuals and accords with good practice. That is, the base year must be developed based on actuals and address each forecast real cost departure from actuals, by exception, and build a case for each.

The risks of the QCA endorsing the proposed base year include that SunWater is ignoring actuals (or not explaining any departures beyond reasonable escalation), paying limited or no attention to the QCA's previous opex findings and may be submitting costs that are not prudent and efficient.

For all schemes, SunWater proposes that total operating costs relating to irrigation will increase from an actual $39.6 million in 2017 to a forecast of $47.2 million in 2019 representing a $7.6 million increase over two-years. Specifically, for the Burdekin Haughton distribution system opex is set to increase 35 per cent from an actual $9.2 million to a forecast of $12.4 million between 2017 and 2019. During 2020-2024, costs are proposed to increase another 6 per cent. This is despite a state context of relatively modest wage and other cost increases.

The significant increases are driven by SunWater's proposed higher overhead, insurance and labour costs. Insurance and labour costs are forecast to increase 11 and 14 per cent respectively between 2019 – 2024.

The QCA must investigate the validity of these proposed increases in operating costs, including SunWater's allocation of costs from other parts of the business to irrigation customers. BRIA submits that cost increases of this nature are unsustainable in terms of the impact on cost-reflective prices for irrigators generally.

SunWater's non-direct costs were consistent with the QCA's budget over the previous price path. SunWater has now proposed to modify its approach to allocating non-direct costs between customers resulting in the forecast non-direct costs allocated to the Burdekin scheme being significantly higher than past actual expenditure. It appears that rather than reducing its expenditure in other areas of the business as they contract, SunWater is maintaining its cost-base and simply allocating more costs to irrigators. By contrast, an efficient business in a competitive market would reduce its costs over time for the benefit of customers.

SunWater's non-direct costs relating to irrigation increase from an actual $11.1 million in 2017 to a forecast $17.6 million in 2019 representing a $6.5 million increase in two-years. SunWater's submission does not explain the reason for the 58 per cent increase in non-direct costs. The QCA should consider SunWater's proposed cost allocation methodology for overhead and indirect costs and identify if there are opportunities to suggest a more equitable and transparent method of establishing and allocating efficient non-direct costs.

Irrigation water pricing needs to balance the commercial interests of the scheme owner with the commercial interests of their customers. The current operating profit for sugar cane is close to zero. Based on SunWater's updated NSP (Nov 2018), the referral notice poses the risk that volumetric prices (Part B & D) could increase by up to $6.66 per ML to achieve cost-reflective volumetric prices immediately. This is deeply concerning to BRIA and its customer members as the capacity to pay does not exist to absorb the variable charge increase plus the $2.38 per ML (real) increase in fixed charges.

The proposed up to $9 per ML (real) increase in the first year of the new price path plus CPI, is above irrigators' capacity to pay and will have negative impacts on irrigation businesses and their employees and service providers in the community. BRIA recommend that the increases in total fixed and variable annual water charges should be constrained to CPI, and that SunWater's costs be driven down by the QCA's prudency and efficiency findings so that generally the cost-reflective prices are equivalent to current prices.

The bulk cost allocated to distribution losses is a material item driving prices for distribution customers. BRIA believes that customers should not be allocated the full cost of nominal medium priority distribution losses allocations as set out in SunWater's submission. BRIA identifies that the volume of distribution losses used as an input to pricing should be based on the updated efficient requirement for those allocations using contemporary water use data and not nominal allocations for distribution loss WAE.

The QCA should adopt the same methodology for distribution loss allocation as was used in the last price review, but vary the water use period to only incorporate recent water loss use data from 2014-15 up to and including 2018-19 (the most recent five years of water use data). QCA should obtain the data from SunWater in July 2019. BRIA recommend these five years because SunWater has improved the efficiency of the scheme since 2014-15 due to local management arrangements (LMA) scrutiny, replacement of meters and a dedicated metering officer, all of which have improved the accuracy of its losses water use data from 2014-15. By taking this approach, the QCA will be providing SunWater with the ongoing economic incentive to drive further efficiencies within the scheme (i.e. reducing its reliance on excess distribution loss allocations).

The QCA should review fixed and variable cost allocation for the scheme. SunWater's increased variable costs, for example, will have unaffordable impacts on customers if accepted by the QCA. BRIA considers that it would assist the QCA to manage price impacts on customers if it were to review SunWater's proposed variable costs and reallocate costs that are fixed or semi-fixed for recovery as fixed costs.

In particular, BRIA recommend that fixed (connection fees) and semi-fixed (demand charges) for electricity should be re-assigned as fixed costs. Under SunWater's model for this review 100% of its electricity bills are treated as variable costs. This is no longer appropriate.

BRIA submits that the fixed components of electricity charges such as the flat daily connection charge and semi-fixed demand charges should be allocated to the fixed component of water charges. This is consistent with QCA principles recommending that fixed costs be recovered via fixed charges and variable costs be recovered via variable (water use) charges. It is also consistent with the QCA's definition of a variable cost being one that varies with water use.

The result of reassigning fixed and semi-fixed costs (currently included in variable water charges) would help manage the referral notice's requirement to have regard to balancing future price impacts on customers against SunWater's requirement to recover its prudent and efficient costs. Regarding SunWater's electricity proposals:

- BRIA opposes any pass-thru mechanism as it will increase price volatility (undermining a key benefit of price paths) and remove the incentive for SunWater to forecast electricity costs accurately and only incur efficient electricity costs.
- BRIA request that QCA investigate SunWater's forecast electricity costs for each year of the price path in light of pending changes to tariffs and ensure that potential costs savings have been included in forecasts.
- Finally, BRIA notes that in the previous review the QCA derived its estimate of variable charges (and per ML electricity costs) based on variable costs divided by *typical year* average water use. BRIA considers that this methodology provided an inaccurate estimate of variable costs. It failed to send efficient price signals. If the QCA allocates only the variable electricity costs for recovery via variable water charges (and excludes fixed and semi-fixed electricity costs from variable charges) there is an opportunity to improve on the methodology for the new price path. BRIA recommend that the QCA adopt a new approach, supported by LMA boards, which calculated an estimated variable electricity cost per ML of customer water use. This data is available from SunWater and would assist the QCA to recommend variable charges that include the efficient cost of pumping water – providing appropriate economic signals to customers and managing SunWater's short-term volume risk in relation to the electricity costs that it incurs on our behalf.

BHWSS bulk insurance costs will increase 35 per cent from $569,000 to $766,000 between 2016 and 2019. In addition, during the new pricing period costs are proposed to increase another 11 per cent from $766,000 to $856,000. This significant increase needs to be justified by SunWater. The QCA may find it fruitful to investigate the performance of the current insurance program. Many schemes have seen large increases in insurance costs due to extreme weather and flood events. Detailed information on the resolution of claims should be provided.

In the interests of transparency, BRIA seeks confirmation that SunWater's flood-related non-routine expenditure has been excluded from prices (and the calculation of the renewals annuity balance), where insurance claims are yet to be resolved. BRIA also recommends that the QCA ensure that SunWater is only insuring assets that can be successfully claimed against (i.e. is not paying insurance for uninsurable structures).

In the previous review, where SunWater was unable to forecast revenue from insurance payouts (prior to resolution of insurance claims), the QCA recommended that non-routine costs of flood-damage repairs should be excluded from calculation of the annuity and water charges. The QCA recognised that once a flood claim was resolved and revenue from the insurance firm had been received, then and only then could SunWater include its (net) costs for recovery from customers. BRIA considers that the this was the appropriate approach and recommends that, where insurance revenues have not been forecast as part of annuity income (i.e. where claims are not resolved), the QCA should exclude corresponding flood-damage related costs from prices.

By contrast, where insurance claims have been resolved and are included as annuity income, it is appropriate for SunWater to also include the corresponding capital costs in its annuity calculation and prices.

Irrigators should not meet the costs of recreation facilities, including any transitional costs.

SunWater should ensure that all water delivery is accurately metered to ensure equitable cost sharing.

In the previous review the QCA made recommendations to SunWater in relation to Giru Benefited Area (GBA) pricing arrangements. SunWater submitted that it would be appropriate for the QCA to review the cost allocation method and discounted charges that currently apply in the GBA. Haughton Zone A customers should be treated in the same way as Giru Benefitted Area (GBA) customers. GBA pricing structure requires resolution as part of the long-term risk management for the scheme, to provide certainty to all customers, and BRIA recommends that the QCA should develop equitable and sustainable prices for Haughton Zone A / GBA customers.

SunWater's model assumes that all distribution customers will in the next price path pay the same charges, including GBA customers. SunWater's model implies a substantial change in pricing policy and the consequence of the QCA taking a different approach could result in a material reduction in forecast revenue and increase in cost-reflective prices for non-GBA channel customers.

In February 2019, SunWater confirmed that the Haughton Zone A weirs are distribution assets. The implications include that any water taken from the Haughton Zone A should be considered deliveries from the distribution system and the standard distribution system charge should apply to every ML that passes through customer meters in the GBA and Haughton Zone A.

In the absence of a firm recommendation for an equitable pricing structure from SunWater, BRIA requests the QCA to recommend a pricing structure for Haughton Zone A / GBA after investigating three possible options. It is recommended that under all options the QCA ensure the transition to full cost-reflective channel prices for GBA customers is gradual and that the cost of transition is covered by a CSO and not by other irrigators. We recommend that GBA and Haughton Zone A irrigation customers should have the same entitlement security as channel customers and entitlement to Burdekin flood harvesting, commencing at the start of the new price path.

Pricing in Gladys Lagoon should be reviewed and the QCA should develop equitable and sustainable prices. BRIA requests the QCA to recommend a pricing structure for Gladys Lagoon after investigating three (3) options. It is recommended that under all options the QCA ensure the transition to full cost-reflective channel prices for all water delivered from the channel system to Gladys Lagoon, the transition is gradual, and that the cost of transition is covered by a CSO and not by other irrigators.

The Burdekin Resources Operations Plan (ROP) defines the purpose and operational requirements of the Clare Weir as benefiting all SunWater customers. Therefore, costs of upgrades should be apportioned accordingly.

BRIA believes any real increase to drainage charges in the BHWSS are unwarranted.

The QCA should consider the impact of additional revenue to SunWater resulting from medium and high priority *term allocations* in the BHWSS which will come into effect during the 2020-2024 price path.

Consistent with the Honourable Dr Anthony Lynham's media statement (2018), this submission aims to: assist the QCA's review to be a comprehensive study that underpins irrigation pricing for 2020-24; provide irrigators with pricing certainty, simplicity and transparency; allow BRIA's members to plan for future years, supporting a sustainable farming sector; and limit annual price increases to those similar to past reviews.

SunWater's proposed cost increases and allocation of costs to the Burdekin scheme are not sustainable for irrigators and at long-term average world sugar prices are not affordable. This challenging set of circumstances requires new approaches by the QCA that more fairly allocate only prudent and efficient costs to the beneficiaries of this scheme, which includes the broader community.

Given the infrequency of these reviews, we would urge the QCA to consider each issue raised below and resolve each matter for the 2020 to 2024 price path, and not defer issues due to a lack of early consideration.

We would be delighted to meet, discuss and work with QCA officers on the issues in this submission. BRIA thanks the QCA for considering our submission.

1. Introduction

On 29 October 2018, The Honourable Jackie Trad, Treasurer and Minister for Aboriginal and Torres Strait Islander Partnerships directed the Queensland Competition Authority (QCA) to undertake an investigation about pricing practices in relation to rural irrigation prices to apply from 1 July 2020 to 30 June 2024.

SunWater submitted the first tranche of its pricing submission to the QCA on 6 November 2018.

Jacobs has been engaged by the Burdekin River Irrigation Area (BRIA) to prepare – on BRIA's behalf – a submission for the QCA, responding to SunWater's Network Service Plans (NSP) and proposed prices.

The QCA then has six months to prepare its draft report, during which time Jacobs will seek to engage with the QCA, focusing attention of BRIA's key issues as set out in this submission.

1.1 Key documents

To inform this report, we have relied on the following sources:

1) Ministerial Referral and Direction Notice (29 October 2018) – QCA investigation about pricing practices in relation to rural irrigation prices to apply from 1 July 2020 to 30 June 2024
2) Burdekin Haughton – Bulk Water Service Contract – 2018/19 to 2023/24 network service plan (NSP) (2018)
3) Burdekin Haughton - Distribution Service Contract – 2018/19 to 2023/24 NSP (2018)
4) SunWater pricing model – updated on 21 December 2018
5) SunWater's relevant submissions provided to the QCA
6) QCA's relevant reports or publications including, for example, the consultation paper: Rural irrigation price review 2020–24: apportionment of dam safety upgrade costs (QCA, 2018).

2. Approach and treatment of this submission

2.1 BRIA's approach to QCA's review

BRIA and its regulatory economics advisor Jacobs seek to work collaboratively and constructively with QCA and SunWater. Our submission is balanced and based on evidence. Where data is imperfect, we have used reasonable judgement that balances the needs of customers, SunWater and government. We respect the QCA's process and look forward to participating in consultation and other aspects of this important review.

Consistent with the spirit of Honourable Dr Anthony Lynham's media statement released in October 2018, we have prepared this submission to:

1) Assist the QCA's review to be a comprehensive study that underpins irrigation pricing for 2020-24
2) Provide irrigators (in this scheme) with pricing certainty, simplicity and transparency
3) Allow BRIA's members to plan for future years, supporting a sustainable farming sector
4) Limit annual price increases to those similar to past reviews.

We wish to draw attention to the proposed high cost increases under SunWater's management. This is an established irrigation scheme, which by now, should be operating efficiently operated with only modest CPI-like price increases. The cumulative impact of the proposed $2.38 per ML annual real price increases year-on-year will jeopardise the financial viability of irrigated agriculture in the region

We ask that the QCA address all key drivers of SunWater's increasing costs and make a constructive contribution to a much-needed policy discussion about maintaining the social and economic wellbeing of communities that rely on the irrigated agricultural production and employment driven by this scheme.

Farmers in the Burdekin scheme are not a perpetual and limitless source of increased revenue for SunWater.

The cost increases and allocation of costs to the Burdekin scheme proposed by SunWater are not sustainable for irrigators. This challenging set of circumstances requires new approaches that more fairly allocate only prudent and efficient costs to the beneficiaries of this scheme, which includes the broader community.

2.2 Request about QCA's treatment of issues

Everything in this document forms part of our submission. We ask that each matter raised be explicitly considered and **resolved** by the QCA in its draft report. Where a matter appears to fall under 'policy' we ask that the QCA not simply exclude consideration. Rather we ask that the QCA recognize its comparative advantage in such matters – as QCA will be fully informed via the review process – and, as such, would appreciate it if the QCA help government in the form of policy options, analysis and recommendations. We ask this recognizing the complex and interactive nature of part-policy / part-economic-regulatory issues. In short, we are asking for the QCA's help to resolve matters that other agencies have not. We ask the QCA to avoid another five-to-ten-year deferral of decisions that could be resolved as part of this review in a reasonably straightforward manner.

3. Analysis of key issues

On 30 November 2018, BRIA submitted its list of key issues to the QCA. This submission expands on our key issues by providing our further issues, analysis and recommendations for inclusion in the QCA draft report.

The following sections separately address each of the key issues that BRIA has identified for this review.

3.1 Customer capacity to pay for cost increases

- Irrigation water pricing needs to balance the commercial interests of the scheme owner with the commercial interests of their customers.
- The operating profit for sugar cane is currently zero. The analysis shows that there is capacity to pay an additional $1/ML only. That is, prices cannot rise at $2.38/ML. CPI alone will result in a price increase of approximately $1.80 per ML per year.
- **BRIA recommend, therefore, that the increases in total fixed *and variable* water charges should be no more than annual CPI during the next price path.**
- Accordingly, QCA is urged to comprehensively review and substantially reduce SunWater's proposed costs – establishing prudent and efficient cost levels – and thereby reduce SunWater's cost-reflective prices for this scheme to at or near existing prices.

3.1.1 Background

During the Local Management Arrangements (LMA) process, BRIA and customers of this scheme were told to expect future price increases in the order of CPI, as the Burdekin Haughton Distribution scheme was very close to cost-reflective pricing.

In contrast, SunWater's reissued 2019 NSP and addendum (9 November 2018) has the distribution scheme requiring a subsidy of $4.70/ML Part C fixed charges and $6.66/ML increase on the Part D variable charges.

The referral notice is relevant for the BRIA capacity to pay section, stating that the QCA should have regard to:

> …balancing the legitimate commercial interests of the businesses with the interests of their customers, including considering less than cost reflective volumetric prices which are necessary to moderate bill impacts for customers.

3.1.2 Analysis

Sugar is a commodity, which means the product and price is much the same globally. This means that the sugar price is determined depending on supply from all sugar exporting countries, and demand from global sugar consumers.

Irrigators must absorb price increases in input costs (e.g. water and electricity) but cannot impact sugar prices.

Queensland Sugar Ltd (QSL) publishes historical sugar prices for Australian producers. From June 2012, the world sugar price has averaged around $400/tonne, except for periods of volatility such as June 2016 to June 2017. **The QSL Indicative Price for the most recent 2018 season is $371/tonne of sugar.**

Figure 3.1: International sugar price

The Department of Agriculture and Fisheries (DAF) analysed sugar prices from 2008 to 2012. The average price over this period was $440/tonne, suggesting the world sugar price has been around this level for 11 years.

Table 3 1: DAF analysis of sugar prices 2008 to 2012

	Price ($/t)	Chance annual price will be below or equal (%)
Minimum price	288	2%
Poor price	364	16%
Most likely price	**440** (equates to $43/t of cane) #	**50%**
Good price	515	84%
Maximum price	591	98%

Note: # The cane price formulae is cane price = sugar price x .009 (ccs-4) + constant

e.g. Cane price/tonne = $440 x .009 (14.7-4) + $0.66 = $ 43.00

We have used DAF's application of the Farm Economic Analysis Tool to the BRIA area as the basis for our assessment of irrigator's capacity to pay. We have made the following adjustments to DAF's analysis:

- Escalated growing costs from 2015 to 2019 using the midpoint of the RBA's CPI inflation target (2.5%). It is not appropriate to escalate the sugar price, so it has been set at DAF's assumed $440/tonne.
- **N.B. The QSL Indicative Sugar Price for the most recent 2018 season is $371/tonne which is significantly less than the $440/tonne used in Table 3.1 DAF analysis of sugar prices and equates to $35.72/tonne cane instead of the $43.00 used in Table 3.2 Adjusted DAF FEAT Analysis.**
- In its analysis, DAF assumed an average farm size of 150 ha across all the regions it studied. Following consultation with local producers we have determined the common farm size in BRIA is 120 ha in five rotations, consisting of one plant field, three ratoons and one fallow field, leaving 96 ha of cane area.
- DAF assumed $85,200 to cover the wages or living expenses of the farm owner. Our consultation with growers suggests a living expense of $75,000 reflects current conditions – this change increases capacity to pay and demonstrates the integrity of the BRIA approach to this assessment.

The DAF's analysis adjusted for escalation, farm size and living expenses is shown in the following table.

Table 3 2: Adjusted DAF FEAT analysis

	Value per ton ($ 2019/ton)	Value per ha ($ 2019/ha)	Value per ML ($ 2019/ML)
Revenue	43	4,816	481
Variable costs	-20	-2,240	-224
Gross margin for sugarcane	**23**	**2,576**	**257**
Gross margin - cover crop	-3	-325	-33
Gross margin net sugarcane	**20**	**2,251**	**225**
Wages or living expenses	-7	-784	-78
Irrigation	-4	-448	-45
Other fixed costs	-9	-1008	-100
Total fixed costs	**-20**	**-2240**	**-224**
Total operating profit	**0**	**11**	**1**

Source: DAF, Jacobs analysis

The gross margin for sugar cane in BRIA, net of cover crop costs, is $225/ML in $2019. However, when fixed costs are considered the operating profit is zero. This is before consideration of capital financing costs including depreciation and interest on loans. A low operating profit after considering owner living costs is in accordance with our discussions with local irrigators.

Irrigators have the capacity to absorb small increases in prices. However, larger price shocks will likely be absorbed by irrigators foregoing some of their assumed wages, which will in turn increase the risk of farmers leaving the scheme or living below the poverty line.

The relative magnitude of water costs for BRIA compared to the Burdekin delta irrigation area, according to DAF, is shown in the following table.

Table 3 3: Water charges as a portion of total sugarcane production costs

Irrigation area	Irrigation water charges
BRIA	20%
Burdekin (delta)	10%

Source: DAF

The FEAT Analysis shows that the cost of irrigation as a percentage of total costs for BRIA is double that of the delta. This means that BRIA canegrowers have substantially higher water charges than the delta, reducing BRIA irrigators' capacity to pay additional input costs, including water charges.

3.1.3 Capacity to pay conclusions

Based on SunWater's updated NSP (Nov 2018), the referral notice has volumetric prices (Part B & D) increasing by up to $6.66 per ML to achieve cost-reflective volumetric prices immediately. In addition, SunWater's proposed costs imply $2.38 per ML (real) annual increases in fixed charges until proposed cost-reflective charges are reached. Combined, this suggests up to a $9 per ML (real) increase in the first year of the new price path plus CPI, which materially exceeds irrigators' capacity to pay.

BRIA's analysis suggests that any price increase beyond CPI is likely to have negative impacts on sugarcane irrigation businesses in the BRIA area. In turn, this will reduce agricultural activity, and jeopardise employment and the viability of service providers in the greater regional economy. Past and present Burdekin sugar milling companies have consistently stated that a 10-12% reduction in cane production would result in the closure of one of the regions four sugar mills.

3.1.4 Recommendation

Accordingly, BRIA recommend that the increases in total fixed *and variable* annual water charges should be constrained to CPI throughout the 2020-24 price path.

3.2 Bulk capital costs and asset management (excl. dam safety)

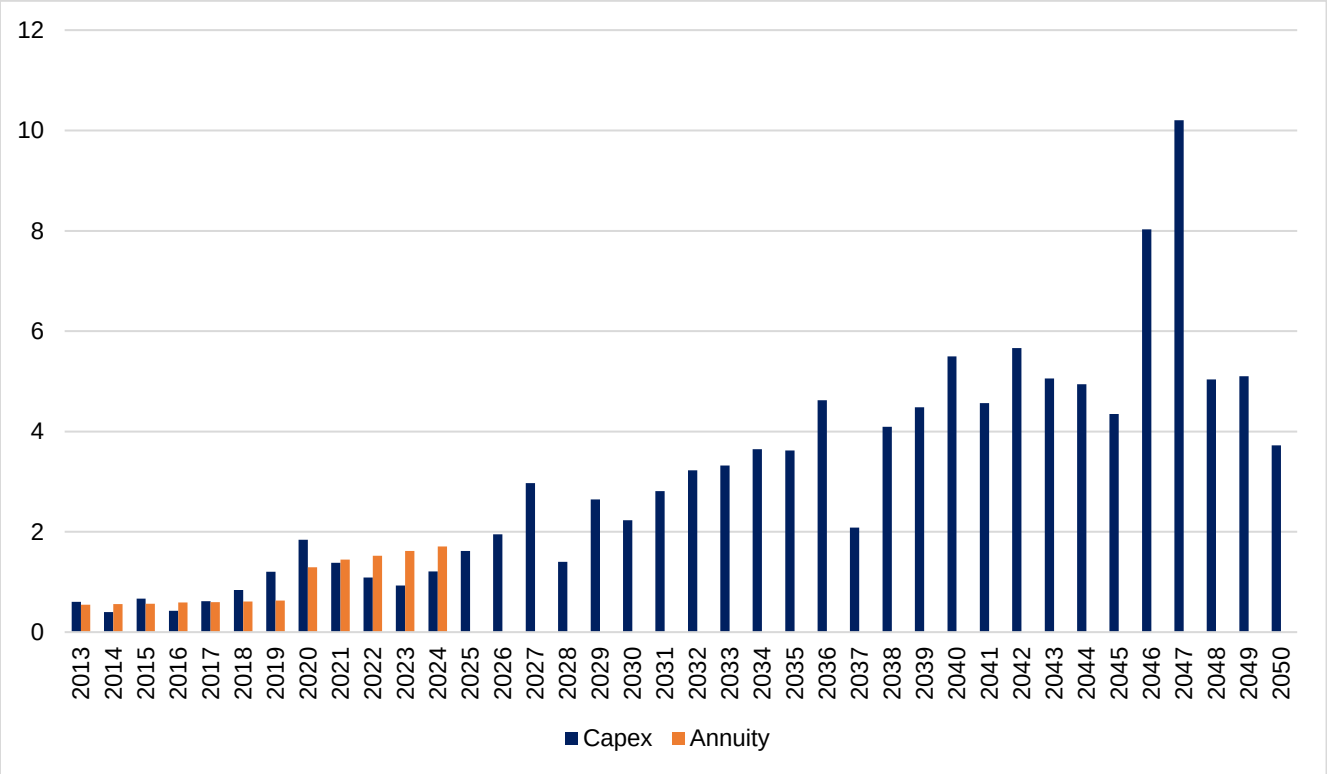
- The Asset Management System used by SunWater should be investigated to ensure it is fit for purpose.
- Large increases in annuity and capital expenditure are not justified and may not be prudent or efficient.
- Sample analysis indicates that some capital expenditure proposed should not be recovered from customers.

BRIA requests that the QCA fully investigate SunWater's Asset Management System to ensure that it is fit for purpose, that is, ensuring that it delivers cost-effective (efficient) and prudent asset management. The QCA's investigation should ensure that proposed capital expenditure (capex) does not significantly exceed previously approved forecast expenditure and that any proposal is justified as being prudent and efficient.

3.2.1 Analysis

As an input to its proposed annuity for the Burdekin scheme, SunWater has forecast total capex of $111 million between 2020-21 and 2049-50 (30 years). The annuity increases from $626,600 in 2018-19 by 172 per cent to $1.71 million in 2024.

Figure 3.2 : SunWater forecast capex and annuity ($ millions)



SunWater's submission provides detail of capex from 2018/19 to 2023/24. As the annuity is calculated over 30 years, there should be additional information relating to the materials projects in the future. For example, the capex in 2046 and 2047 is significant, but not explained.

3.2.1.1 Possible capex sample items

Of the projects explained, we have the following concerns:

- Clare Weir – Hydraulic system upgrade expenditure of $3.62 million over 2018/19 to 2023/24. SunWater state that this project is required due to *design inefficiencies*. Expenditure resulting from SunWater mistakes should not be recovered from customers. This precedent was established during the previous price review. In the Pioneer WSS, the QCA excluded the cost of replacing the Palm Tree valve. The QCA found that SunWater should bear the cost of its mistakes. If this capex is required is due to SunWater's design inefficiencies, then SunWater should bear the costs of its mistakes.
- SunWater is proposing to undertake a 20-year dam safety review between 2018/19 and 2019/20 of the Burdekin Falls Dam. This safety review will *assess the condition of the dam*. In 2021/22, SunWater will conduct its 5-yearly comprehensive inspection of the same dam costing $124,000. It seems unnecessary to undertake the 5-yearly assessment just two years after the comprehensive review.
- SunWater proposes to maintain the sewage treatment plant for $69,000. It is not clear how this expenditure relates to irrigation activities. It relates to recreation users, in which case the Ministerial Referral requires excluding these costs.

These items should be reviewed. Additionally, the largest five past and future items should be reviewed.

3.3 Dam safety capital costs

- SunWater is proposing significant capex on dam safety in the BHWSS – $353 million in the next five years.
- Jacobs dam safety advisors note that the Burdekin Falls Dam has been identified as an extreme consequence category dam with an identified fall-back Acceptable Flood Capacity requirement to pass the Probable Maximum Flood (PMF). The PMF has been considered as an event rarer than the 1 in 9,000 annual exceedance probability (AEP). However, due to the large size of the catchment, SunWater is undertaking a study to re-estimate this probability. SunWater is also undertaking a series of studies to update the estimates of dam failure consequences that are used to identify the consequence category.
- This means that SunWater's capital costs estimates are uncertain pending the results of these studies.
- Dam improvement programs to ensure dam safety, if included in the pricing model, will significantly increase costs to customers – exceed irrigator's capacity to pay water charges – and lead to a significant decrease in agricultural activity and employment in the region.
- Improvements to dam safety provide flood protection for downstream communities. The benefits are outside the service agreement between SunWater and its irrigation customers. The wider downstream community is the beneficiary of dam safety upgrades. Governments – on behalf of the state and national community – are the impactors and principal drivers of the requirements for this additional expenditure.
- Accordingly, BRIA submits that dam safety upgrade costs should be met by government on behalf of the community. There needs to be a clear delineation between dam safety and other capital costs for the new SunWater price path. Irrigators must not and cannot be asked to pay for dam safety upgrades.
- All costs related to dam safety improvements should be excluded from customer water charges.

The QCA cannot be expected to assess the need for, and efficient costs of, implementing dam safety upgrades in the absence of detailed justification and costings. Moreover, adding to the cost uncertainty in the Burdekin there is more work for SunWater to do (noted above) before the AEP and consequence category are finalised.

3.3.1 Background

The referral notice states (in relevant sections):

- 1.2: The recommendations made by the Authority under B (1.1) should include *two sets of appropriate prices in relation to prudent and efficient capital expenditure associated with dam safety upgrades*, one set where all dam safety upgrade capital expenditure is excluded and one set where an appropriate allowance for capital expenditure forecast to be incurred from 1 July 2020 onwards is included. The recommendations made by the Authority are not required to specify which set of prices are to apply.
- 1.3: In making its recommendations under B (1.2), the Authority is to develop and apply an appropriate approach for apportioning dam safety upgrade capital expenditure and explain this approach and its application as part of its recommendations. (Ministerial Referral and Direction Notice, 2018, emphasis added).

3.3.2 Overview

The Dam Improvement Program (DIP) seeks to ensure dam safety compliance requirements are achieved in accordance with industry and state guidelines.

Technology advancements, improved knowledge about failure risks and increases in the consequences of failure at particular dams have resulted in updated safety standards and regulatory requirements. Thus, these changes have warranted water businesses to reassess their current requirements and implement Dam improvement style programs.

SunWater's DIP impacts several dams across Queensland over time and includes investments such as spillway repairs, wall strengthening and drainage improvements.

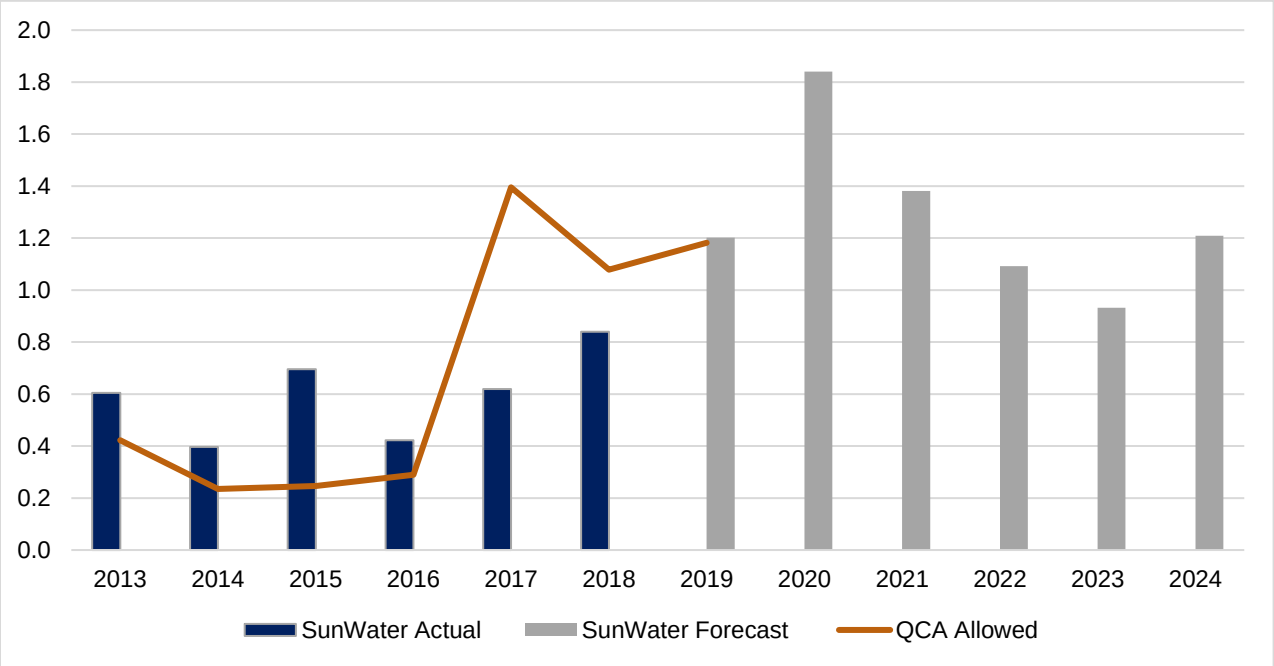
Under current Queensland Government policy, expenditure for the DIP is not recovered from customers. However, the QCA has been asked to consider the inclusion of forecast DIP expenditure in irrigation prices as part of this review.

BRIA notes that some potential inequities could arise due to the timing of DIP expenditure. In some schemes (e.g. Mareeba-Dimbulah), dam safety upgrades have been implemented, and customers may not be asked to pay for those past costs. By contrast, in schemes with forecast DIP expenditure including the Burdekin scheme, if the DIP costs are to be recovered, an inequity would arise.

This would see sugarcane farmers in the Burdekin (with higher costs) competing against sugarcane farmers in other schemes (with lower costs). BRIA notes that agricultural / commercial capital is mobile and could transfer to other schemes where DIP costs are not being recovered.

Figure 3.3 shows the total bulk capex comparison for the BHWSS excluding DIP costs – increases are material.

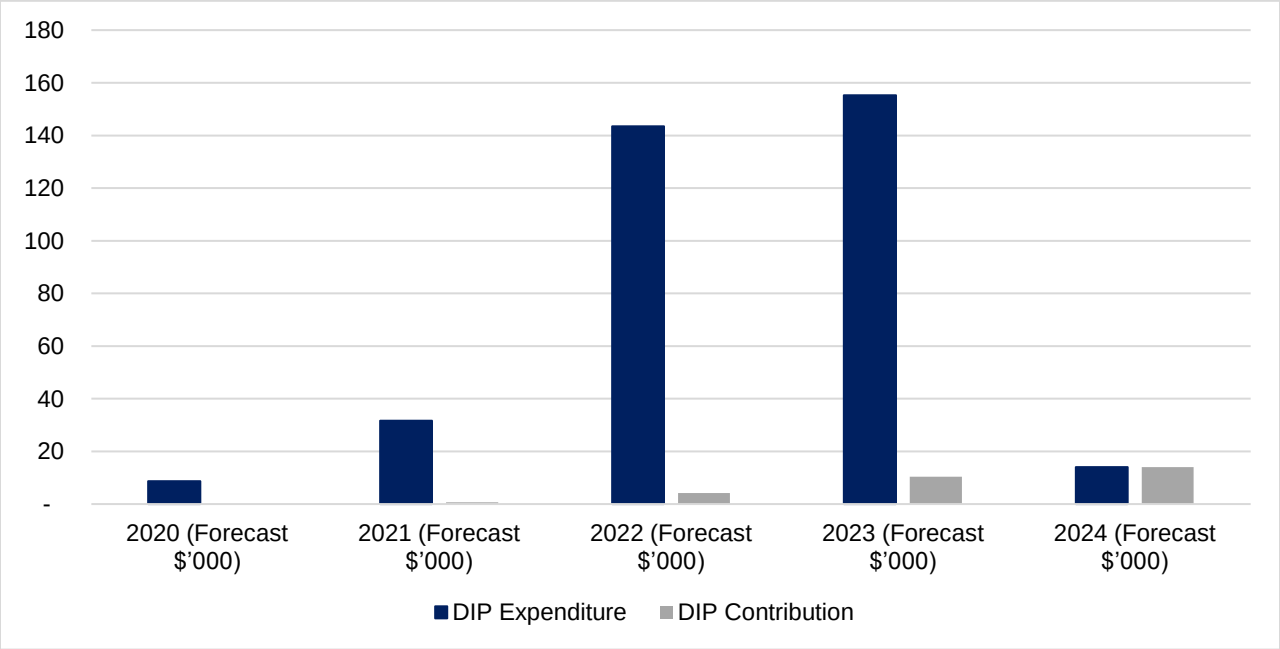
Figure 3.3: Total bulk capex (without DIP) comparison ($ millions)



3.3.3 Analysis

SunWater's forecast DIP expenditure for the Burdekin Haughton scheme is provided in Figure 3.4.

Figure 3.4: Total forecasted DIP expenditure for the Burdekin Haughton scheme ($ millions)



Over the next five years SunWater is proposing to spend $353 million on DIP expenditure in the BHWSS.

SunWater through its bulk NSP has provided an outline of the non-routine projects planned for 2019-2024. However, it is unclear which projects are included in the DIP or form part of the annuity to support service delivery in the scheme. In addition, SunWater's website provides a similar summary only highlighting the foundation drainage, saddle dam and monoliths improvement projects.

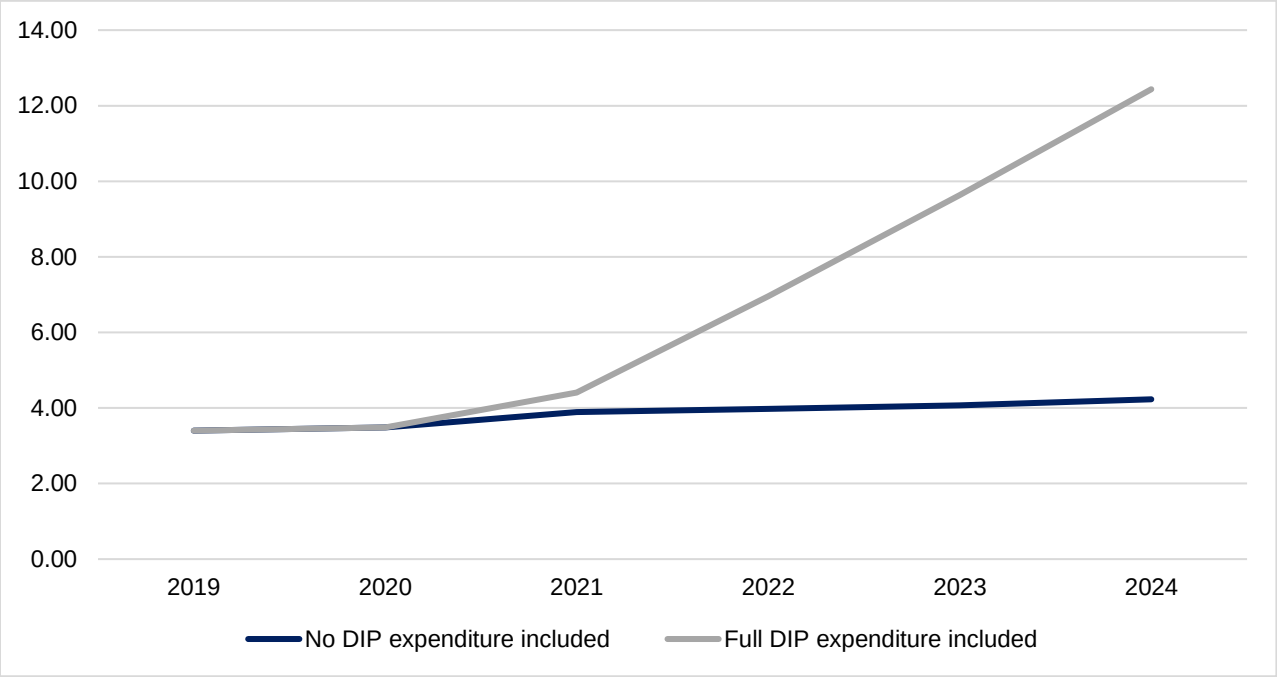
Table 3.4 and Figure 3.5 provide a forecast comparison of medium priority fixed bulk and distribution prices ($/ML) for the BHWSS based on DIP expenditure.

Table 3.4: Total forecast comparison of medium priority fixed bulk and distribution (cost-reflective) prices

		2019	2020	2021	2022	2023
No DIP expenditure included ($/ML)		3.40	3.49	3.89	4.07	4.23
Full DIP expenditure included ($/ML)		3.40	3.49	4.41	9.63	12.44
Change ($/ML)		-	-	0.52	5.56	8.21
Change versus 2019 (%)		0%	0%	15%	164%	241%

Source: SunWater pricing model analysis

Figure 3.5: Total forecast comparison of MP Part A bulk and distribution (cost-reflective) prices ($/ML)

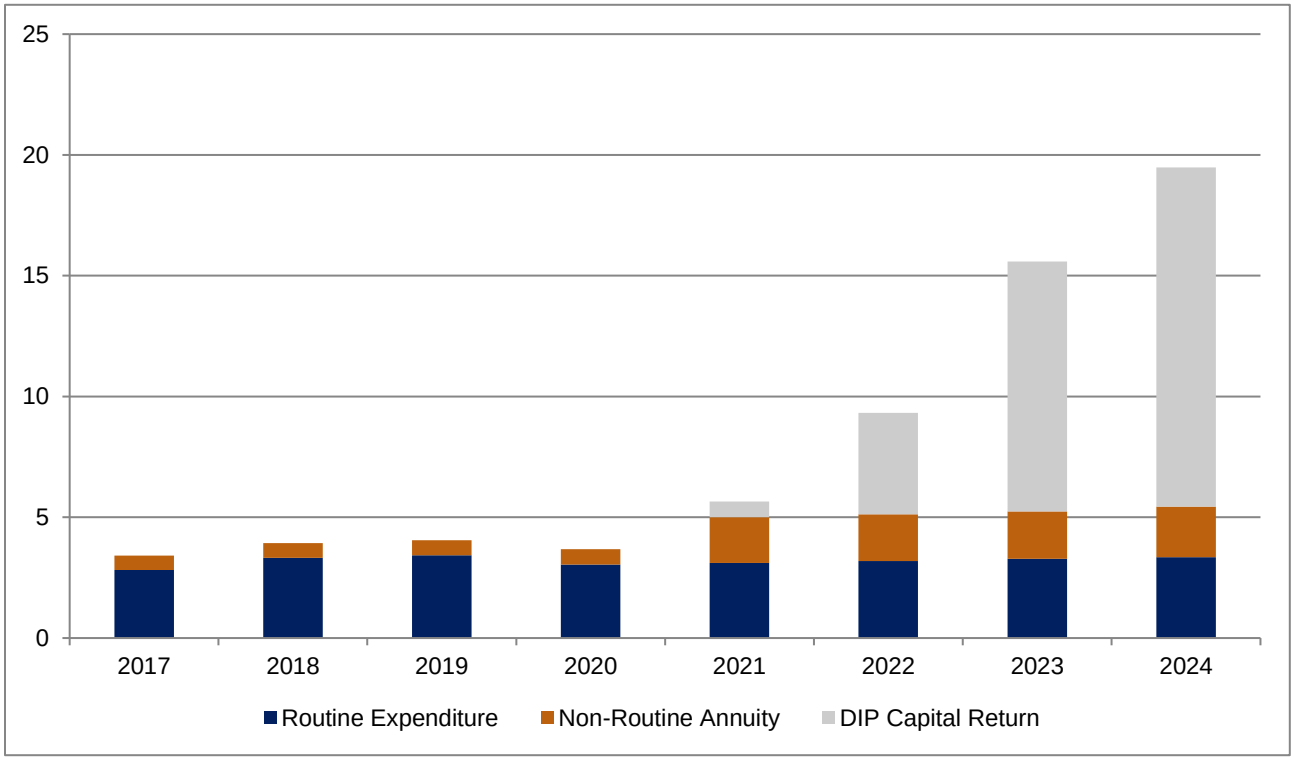


If full DIP expenditure forecasted for the 2019 to 2024 period is included in the charges to irrigation customers Part A Bulk and Distribution prices **will increase 240 per cent from 2019 levels.** This is a significant increase in prices that is not affordable. Such a proposal is unacceptable to BRIA and its customers.

3.3.3.1 Revenue allowances for Dam Improvement program / practical considerations

SunWater is proposing to establish an allowance for DIP expenditure using a RAB-based methodology. SunWater is seeking to recover a return on DIP assets only, excluding a return of capital. This methodology seeks to recover expenditure incurred over a future period. SunWater also suggest that DIP investments should attract a return on assets. If this method is adopted the building blocks for the Burdekin Haughton scheme are outlined in Figure 3.6.

Figure 3.6: Forecasted cost building blocks for BHWSS (nominal $ millions)



In simple terms, the bulk schemes annual costs have been under $4 million per annum, however, with forecast cost increases – due to increases in the non-routine capex annuity (excl. DIP) – the scheme's costs are forecast to exceed $5 million per annum during the new price path. This increase in costs is not supported by BRIA.

By adding a return on proposed DIP capex, the scheme's building block allowance would exceed $15 million by 2023 and approaches $20 million in 2024. The increase in scheme costs with DIP will be 200 to 300 percent.

It is evident, therefore, that the inclusion of any capital return for DIP will have a significant effect on the proposed costs, cost-reflective prices and ultimately the long-term recommended / actual prices of the scheme. In practice, these costs will jeopardise the viability of irrigated agriculture in the area and the employment and regional economic activity that relies upon this sector remaining viable.

BRIA submits that the QCA should recommend **100% exclusion of any recovery on or of capex on DIP projects**. The unsustainable level of the increased costs (associated with DIP) provides in itself a practical reason that dam safety upgrades cannot be included in future irrigation prices. However, there are other reasons set out in the following section.

3.3.4 QCA consultation paper and our analysis of service contracts

In its consultation paper (QCA, October 2018), states that dam safety upgrades are to reduce the risk of dam failure, which is to reduce the risk of damage to property or loss of life downstream. This does not equate to a service outlined in the contracts between SunWater and its customers – a service for which irrigators have agreed or are deemed to have agreed to pay.

The bulk service contract in the BHWSS includes the following relevant considerations:

- SunWater must release water from the SunWater Works, as SunWater reasonably estimates will satisfy the likely demand of the Customer from time to time.
- The customer bears the risks of: (i) destruction of or damage to the Customer's Nominated Works from an Event of Force Majeure or resulting from SunWater's releasing water, under this or any other agreement or the Resource Operations Licence

While this is not a legal view, our submission notes that the irrigator is paying for the release of water (not flood mitigation) and to underline this point, bears the risk of destruction to the customer's works from an act of God or from SunWater's release of water. Under the contract, the customer does not benefit from the dam's flood mitigation services. We would submit that the customer should not, therefore, pay for dam safety. The standard SunWater contract also sets out what the water charges payable by customers are for.

> The Customer must pay SunWater: (a) Water Charges for the Release Services; (b) for the services referred to in clauses 6(a) (connection) to (b) (disconnection), the relevant Other Charges; (c) for the services referred to in clause 6(c) (other services), where: (i) SunWater has indicated that it is prepared to offer the further service; and (ii) SunWater has stated the terms of providing the further service, including the price and payment of a deposit.

Again, not a legal view, but BRIA submits that the water charges are payable for a release service, connection, disconnection or other services offered by SunWater. None of this is relevant to or implies that customers should pay for a flood mitigation or dam safety service.

Our view is that there is an implicit contract between SunWater (for the Queensland Government) and the community that the dams (including Burdekin Falls Dam) developed by the Queensland Government – for the purpose of regional economic development – were done so on the understanding that the flood mitigation /or dam safety benefits were for the broader community's benefit and, accordingly would be paid for by Government on behalf of the community.

The changes in recent years to dam safety standards, are about community protection, the upgrading of those schemes to meet higher community standards does not confer a greater service or water reliability benefit to irrigators. Nor have irrigators driven those changes. The community is the impactor and government has been the agent of this change. If this is the case, then the impactor is effectively the community and the beneficiaries are the downstream community. Accordingly, the government (on behalf of the wider community) should pay for the incremental benefits to dam safety not customers of the scheme. For dam safety, government is the representative of both the impactor and the downstream community. The only other beneficiary of dam safety upgrades may be the insurance firms insuring against flood risk downstream of the dam. This benefit may translate to lower premiums (or lower upward pressure) – and again the downstream community is likely to benefit if this occurs.

3.3.5 QCA consultation questions

1) Do you agree that under the impactor pays principle, the impactors are the users of the services provided by the dams being upgraded (i.e. water storage and supply, and other services provided, such as flood mitigation and recreation)? If not, what do you consider is an appropriate approach to applying the impactor pays principle?

BRIA response:

The ANCOLD guidelines consider the Population at Risk (PaR). If there were no PaR, then there would be no need to undertake dam safety upgrades. Downstream residents are impactors. It is a complex matter to determine the primary impactor and the QCA should not conclude the users are sole impactors.

2) Which one of the impactor or beneficiaries pays principles do you consider should be used as the basis for allocating dam safety upgrade capital expenditure, and why?

BRIA response:

Dam safety costs should not be allocated to irrigation customers. Government should bear the costs of its policy decisions. Nevertheless, dam safety upgrades benefit the entire community (for example, less risk of flooding and lower insurance premiums). Therefore, the entire community should contribute to these costs, through general government funding.

3) With reference to planned dam safety upgrades:

   a) In addition to bulk water supply services, are there other services that the dams being upgraded provide?

   b) Who are the parties or individuals that should be allocated dam safety upgrade costs for each of the services provided?

   c) On what basis should they be allocated costs? For example, how do their activities generate a need for, or benefit from, the costs?

   d) Of the parties and individuals that you identified, would you consider them to be an impactor or a beneficiary, as described in this paper?

   e) Based on the parties or individuals identified, on what basis should costs be allocated, and why?

BRIA response:

Other services that dams provide	Beneficiary or impactor	Parties to be allocated costs	Basis for allocation	Impactor or beneficiary	Basis for cost allocation
Flood mitigation	Downstream community and insurance companies	Government and potentially insurance firms (similar to bank tax / insurance firm tax)	Community is primary beneficiary of reduced risk of loss of life or property damage	Impactor and beneficiary	CSO or as ongoing payment via a Government RAB method (refer to IPART)
Amenity / recreation	Surrounding community / recreational users	Local or Queensland government or behalf of surrounding community / recreational users	Recreational users are primary beneficiary	Beneficiary	If local government, rates to recover cost of maintaining recreation facilities. If SunWater, for Queensland Government, CSO.

4) What are the expected impacts on the interests of irrigator customers of forward-looking prices that include dam safety upgrade costs? If there are significant impacts, please be specific and provide details on how these may arise.

BRIA response:

The proposed prices, including DIP costs, will result in a massive reduction in agriculture in the region as prices will be too high for many customers to afford. Sugarcane has relatively low returns but is well suited to the area. It is not possible to transition into an alternative crop. Therefore, the price of water needs to be kept at current levels with modest CPI increases at most.

Alternative high value crops are not an attractive option due to seasonal influences (e.g. monsoonal events and cyclones), limited markets for horticulture in saturated local / domestic markets, price volatility and high operating costs in the BRIA region. There are limited export opportunities due to a lack of direct international flights out of Townsville (the nearest port) and limited availability of food grade shipping containers out of the port of Townsville. The long distance to domestic markets and high freight costs associated with delivering grain and fibre crops to processors in central Queensland (where the demand exists) also restrict the viability of alternative crops to sugarcane.

5) To what extent have irrigation customers in schemes with planned dam safety upgrades made investments on the basis that dam safety upgrade costs would not generally be recovered in irrigation prices? Please provide detailed arguments and evidence to support your view.

BRIA response:

BRIA notes that irrigators purchased water allocations and land since 1988 on the basis of existing infrastructure and dam safety obligations. That is, customers were required to make a one-off capital contribution (via the purchase of a water allocation), towards the construction of the scheme. Customers should not be required to contribute again because all investment decisions since have been made on this basis.

Decisions to invest were made on the basis of the conditions that existed at the time – including dam safety requirements and the population at risk. Since, growth in population at risk and other factors, have changed the dam's risk profile. However, irrigating customers are not in a position to fund this change, particularly given the marginal profits made in cane in the BRIA region. In other areas, which compete with the BRIA farmers, dam safety upgrades have already been paid for by government. To require BRIA farmers to pay, will result in an unfair water price differential caused only by the timing of government policy.

The previous price path excluded dam safety costs from irrigation prices. Irrigators have needed to make investment decisions, including the trading of water allocations of the basis of prevailing Government policy. To support ongoing investment, the Government should maintain its current policy settings and exclude dam safety costs from irrigation prices. To do otherwise would jeopardise future investment.

6) Are there any other issues that are relevant in the context of the public interest (including equity and fairness) that you think the QCA should consider in developing an appropriate approach for apportioning dam safety upgrade costs?

BRIA response:

In its consultation paper (QCA, October 2018), states that dam safety upgrades are to reduce the risk of dam failure, which is to reduce the risk of damage to property or loss of life downstream. This does not equate to a service outlined in the contracts between SunWater and its customers – a service for which irrigators have agreed or are deemed to have agreed to pay.

The bulk service contract in the BHWSS includes the following relevant considerations:

- SunWater must release water from the SunWater Works, as SunWater reasonably estimates will satisfy the likely demand of the Customer from time to time.
- The customer bears the risks of: (i) destruction of or damage to the Customer's Nominated Works from an Event of Force Majeure or resulting from SunWater's releasing water, under this or any other agreement or the Resource Operations Licence

While this is not a legal view, our submission notes that the irrigator is paying for the release of water (not flood mitigation) and to underline this point, bears the risk of destruction to the customer's works from an act of God or from SunWater's release of water. Under the contract, the customer does not benefit from the dam's flood mitigation services. We would submit that the customer should not, therefore, pay for dam safety. The standard SunWater contract also sets out what the water charges payable by customers are for.

> The Customer must pay SunWater: (a) Water Charges for the Release Services; (b) for the services referred to in clauses 6(a) (connection) to (b) (disconnection), the relevant Other Charges; (c) for the services referred to in clause 6(c) (other services), where: (i) SunWater has indicated that it is prepared to offer the further service; and (ii) SunWater has stated the terms of providing the further service, including the price and payment of a deposit.

Again, not a legal view, but BRIA submits that the water charges are payable for a release service, connection, disconnection or other services offered by SunWater. None of this is relevant to or implies that customers should pay for a flood mitigation or dam safety service.

7) Which cost allocation principle will provide direct and indirect users or beneficiaries with transparency, predictability and stability in terms of how prices that are inclusive of dam safety upgrade costs are derived?

BRIA response:

Not applicable.

8) Are there any other issues that you think are relevant to how dam safety upgrade costs should be allocated amongst parties and individuals? If so, please be specific and provide supporting reasons in your response.

BRIA response:

Our view is that there is an implicit contract between SunWater (for the Queensland Government) and the community that the dams (including Burdekin Falls Dam) developed by the Queensland Government – for the purpose of regional economic development – were done so on the understanding that the flood mitigation /or dam safety benefits were for the broader community's benefit and, accordingly would be paid for by Government on behalf of the community.

The changes in recent years to dam safety standards, are about community protection. The upgrading of those schemes to meet higher community standards does not confer a greater service or water reliability benefit to irrigators. Nor have irrigators driven those changes. The community is the impactor and government has been the agent of this change. This being the case, then the impactor is effectively the community and the beneficiaries are the downstream community. Accordingly, the government (on behalf of the wider community) should pay for the incremental benefits to dam safety not customers of the scheme. For dam safety, government is the representative of both the impactor and the downstream community. The only other beneficiary of dam safety upgrades may be the insurance firms insuring against flood risk downstream of the dam. This benefit may translate to lower premiums (or lower upward pressure) – and again the downstream community is likely to benefit if this occurs.

3.3.6 Conclusion about bulk capex and dam safety

Due to the cost impact, BRIA cannot contemplate the allocation of any dam safety capex to customers.

However, for the QCA to make a recommendation, SunWater needs to:

- Provide greater detail on the projects included in the DIP for each scheme. This should include but is not limited to an accurate breakdown of costs, timeframes and specification of works.
- Engage with all parties likely to be affected by this proposed change. Comprehensive information needs to be provided for each relevant scheme (SunWater in its submission noted not all customers have been consulted on revised expenditure forecasts and new projects).
- Ensure these improvements are prudent / essential to meeting regulatory standards and costed and procured efficiently to ensure least cost.

Given that in the previous review dam safety capex was not funded by irrigation customers, it is BRIA's view that this precedent be retained for the new price path. Our view is that irrigators are not impactors in this case – as they have not driven the changes in national and state dam safety standards (the impactors are the community and government). The irrigators are not beneficiaries of dam safety improvements (except as community members).

Our conclusion, therefore, is that in relation to expenditure on dam safety upgrades:

- Under an impactor pays approach – the responsible governments should pay on behalf of the *wider* community – as governments are the agents of the new national and state dam safety standards.
- Under a beneficiary pays approach – the government should pay on behalf of the *downstream* community. We note that under their contracts with SunWater, irrigators appear not to be a beneficiary of any dam safety service and we note that investment in dam safety does not change the service which irrigators receive.

While our view may not reflect an academic understanding of regulatory economics it is relatively compelling to us that for practical reasons irrigators cannot pay the cost of dam safety upgrades in the BHWSS due to their magnitude and that such a prospect would strongly discourage ongoing investment in the regional economy. Cost-reflective prices that include the proposed cost increases would provide a long-term signal that the irrigation sector in the Burdekin will have only a limited number of years remaining. Accordingly, capital and employment would likely flow to other areas without that cost impost.

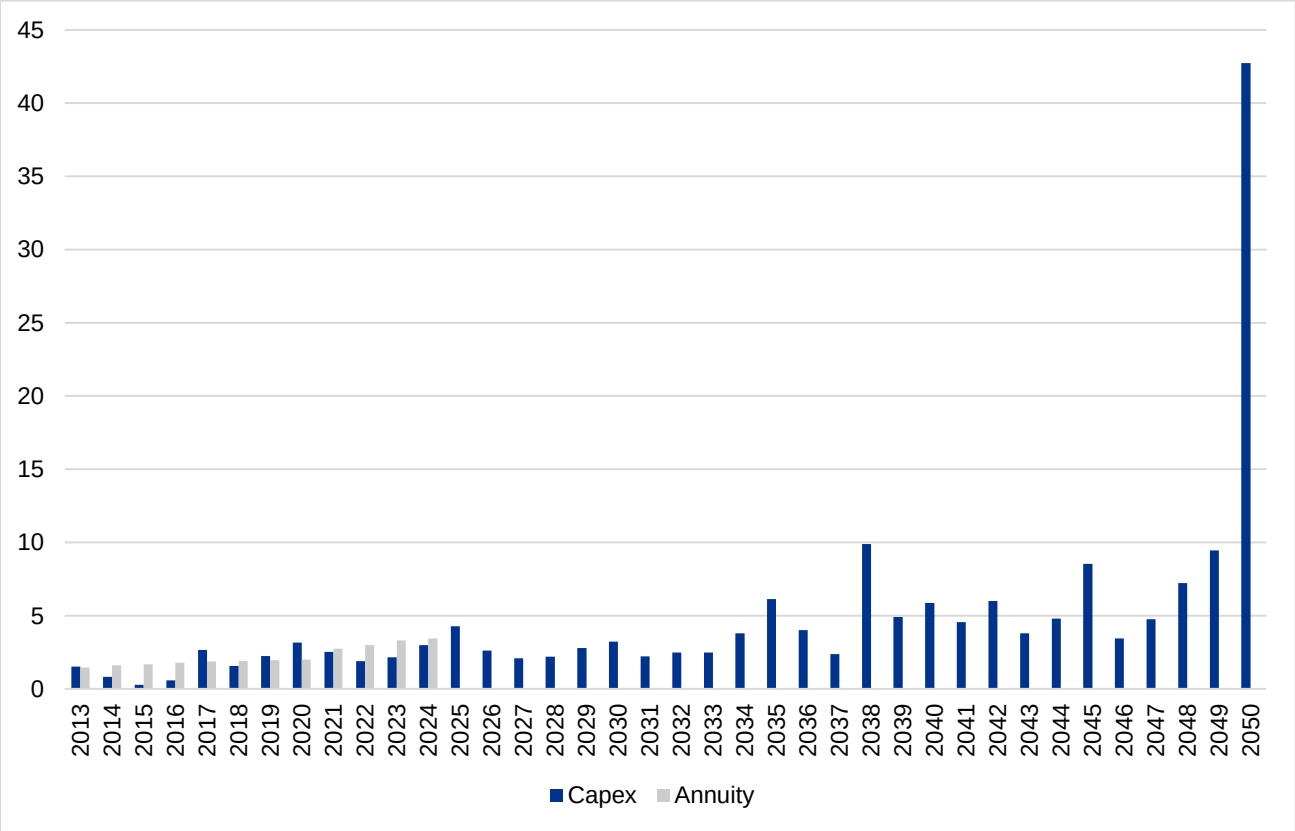
We also note that governments have driven the dam safety changes and, as the impactor, should pay. Also, downstream communities (and potentially insurance firms) are the beneficiaries of dam safety upgrades, and as such, on the community's behalf government should pay.

3.4 Distribution capex / asset management and renewals annuity

- Details of proposed capital expenditure beyond 2023/24 are not well detailed and the large capital expenditure proposed for 2050 is not justified.

As an input to its proposed annuity, SunWater has forecast total capex of $166 million between 2020 and 2049 (30 years). The annuity increases from $1.95 million in 2018-19 by 73 per cent to $3.49 million in 2023-24.

Figure 3.7 : SunWater forecast capex and annuity



SunWater's submission provides detail of capex from 2018/19 to 2023/24. As the annuity is calculated over 30 years, there should be additional information relating to the materials projects in the future. For example, the capex in 2050 is significant, but not explained.

Given the size of this item, and its impact on the annuity, we consider that this item should be justified by SunWater.

SunWater proposes fencing costs of $94,000 in 2020/21. In the previous review, the QCA adjusted the fencing costs on the basis that half of identified expenditure is funded by adjoining landholders, as per the Dividing Fences Act 1953. This approach was also consistent with SunWater's fencing policy. This precedent should be maintained and only half of fencing costs recovered through prices, where the fence adjoins another property holder.

These items should be reviewed. Additionally, the largest five past and future items should be reviewed.

3.5 Review of operating costs

- State-wide, SunWater proposes that opex relating to irrigation will increase from an actual $39.6 million in 2017 to a forecast of $47.2 million in 2019 representing a $7.6 million increase between 2017 and 2019.
- Burdekin Haughton distribution network opex is set to increase 35 per cent from an actual $9.2 million to a forecast of $12.4 million between 2017 and 2019. From 2020-2024, costs will increase another 6 per cent from $12.4 million to $13.2 million. The significant increases are related to predicted higher overhead costs.
- BRIA submits that cost increases of this nature are unsustainable in terms of the impact on cost-reflective prices for irrigators generally. The QCA is requested to investigate the validity of these proposals before being satisfied that the increase is justified.
- SunWater's proposed operating costs were developed using a base year that is a pure forecast. The base year – contrary to good regulatory economic practice – contains no actuals and appears to be totally divorced from previous years of actuals, which were broadly in-line with QCA's cost allowances in the previous review. SunWater's last year of actuals is materially lower than the proposed base year costs.
- BRIA recommend that the QCA instruct SunWater to develop an opex base year that relates to actuals and accords with good practice. That is, the base year must be developed based on actuals and address each forecast real cost departure from actuals, by exception, and build a case for each.
- The risks of the QCA endorsing the proposed base year include that SunWater is ignoring actuals (or not explaining any departures beyond reasonable escalation), paying limited or no attention to the QCA's previous opex findings and may be submitting costs that are not prudent and efficient.

3.5.1 Background

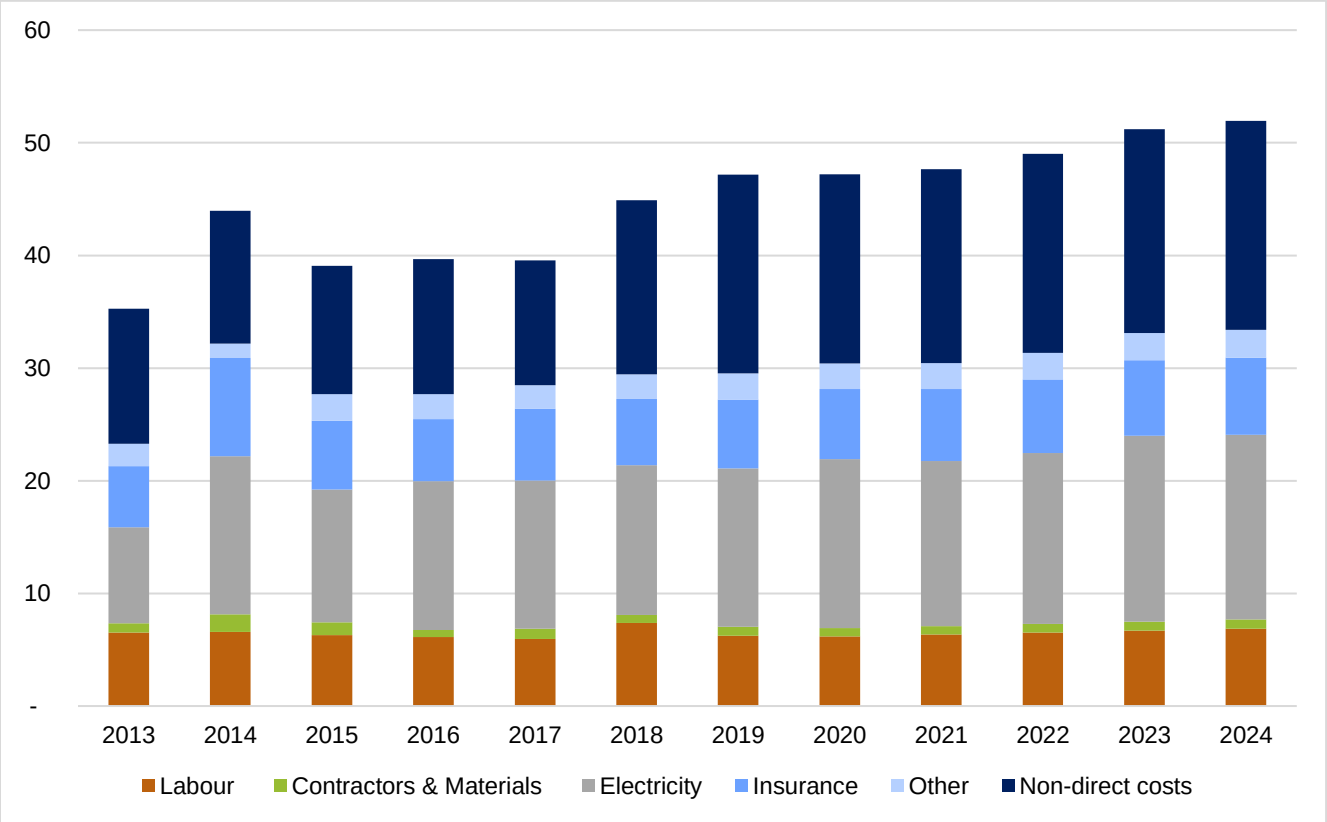
Operation and maintenance of SunWater's network is required to meet customer service standards. SunWater recovers these costs through a routine charge from its customers. SunWater's routine operations charge consists of the following expenditure items

- Labour
- Contractors
- Materials
- Electricity
- Insurance
- Other
- Non-Direct (Overhead costs).

3.5.2 Analysis of SunWater's opex for all schemes

Statewide, SunWater's operations expenditure relating to irrigation increased from an actual $39.6 million in 2017 to a forecast of $47.2 million in 2019 – a $7.6 million increase over two-years. Thereafter, a general upward trend occurs for the duration of the price path.

Figure 3.8: SunWater's operation costs (all schemes) ($ millions)



Source: SunWater pricing model, output graph data tab

3.5.3 Analysis of SunWater's distribution opex for BHWSS

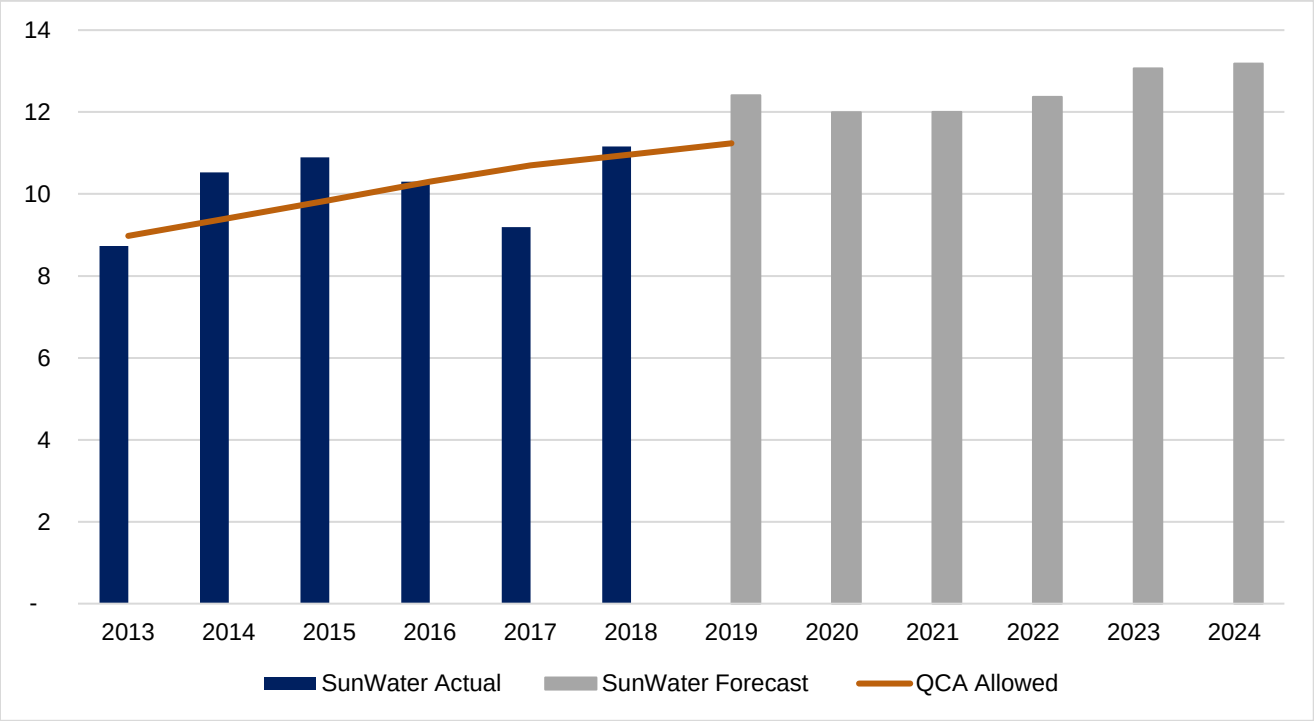
The Burdekin distribution network operations costs are set to increase 35 per cent from $9.2 million to $12.4 million between 2017 and 2019. Further to this between the pricing period (2020-2024) costs are proposed to increase another 6 per cent.

Most of this increase is due to overhead costs. However, insurance costs are forecasted to increase 11 per cent from $483,00 to $539,000 and labor costs are forecasted to increase 14 per cent from $2.6 million to $3.0 million between 2019 – 2024.

The QCA must investigate the validity of these proposed increases in operational costs before being satisfied that the increase is justified.

The distribution operations expenditure comparison forecast is shown in Figure 3.9

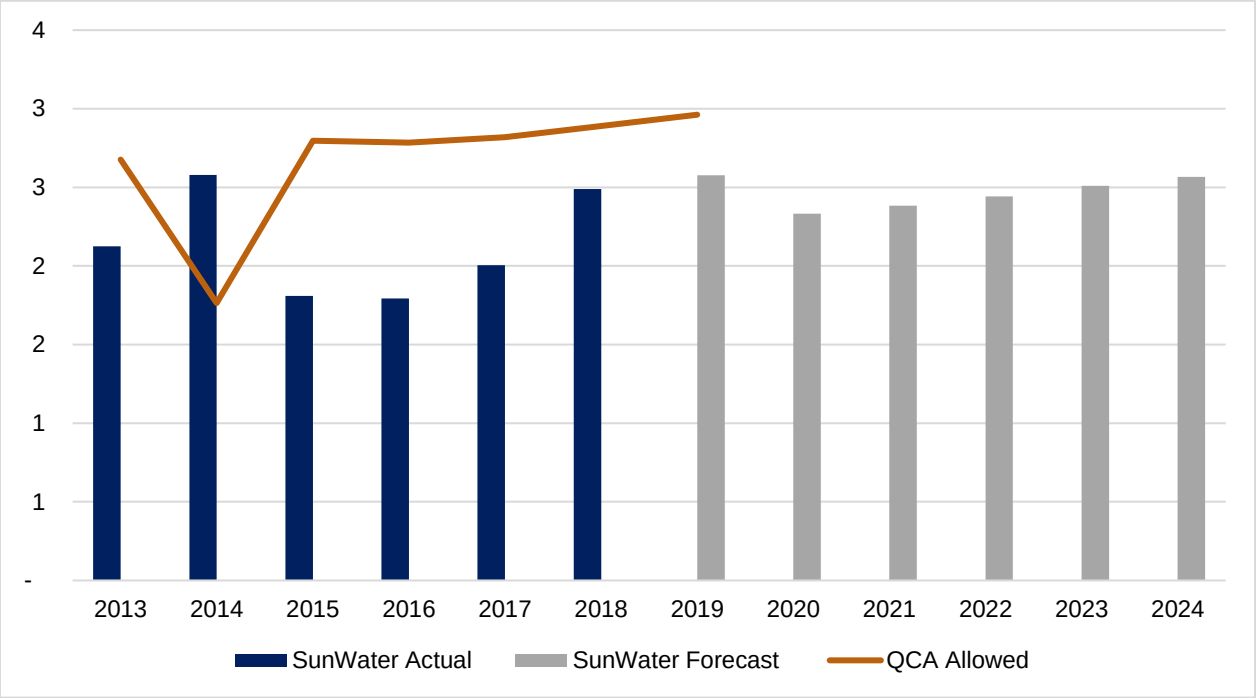
Figure 3.9: Total distribution operations expenditure comparison ($ millions)



3.5.4 Analysis of SunWater's bulk opex for BHWSS

Similarly, for the bulk scheme SunWater has kept within the QCA's budget for the previous price path. However, they have forecast an increase of 28 per cent from $2.0 million to $2.6 million between 2017 and 2019. Labour costs are also forecast to increase 26 per cent from $270,000 to $340,000. The bulk operations expenditure comparison forecast is shown in Figure 3.10

Figure 3.10: Total Burdekin bulk operations expenditure comparison ($ millions)



3.5.5 Conclusion about opex

For irrigators to have confidence in the forecast costs, SunWater needs to:

- Explain why operational costs are set to increase by 20 per cent (all schemes) and 35 per cent (Burdekin Haughton) over two years.
- Justify the significant change in labour, insurance and non-direct costs. SunWater need to outline the additional functions they are undertaking to cause this cost increase.
- Outline whether the changes in labour costs are due to increases in FTE's required, higher labour cost or a combination of both – or whether there is an error in SunWater's model or forecasts.

3.6 Allocation of overhead costs from SunWater

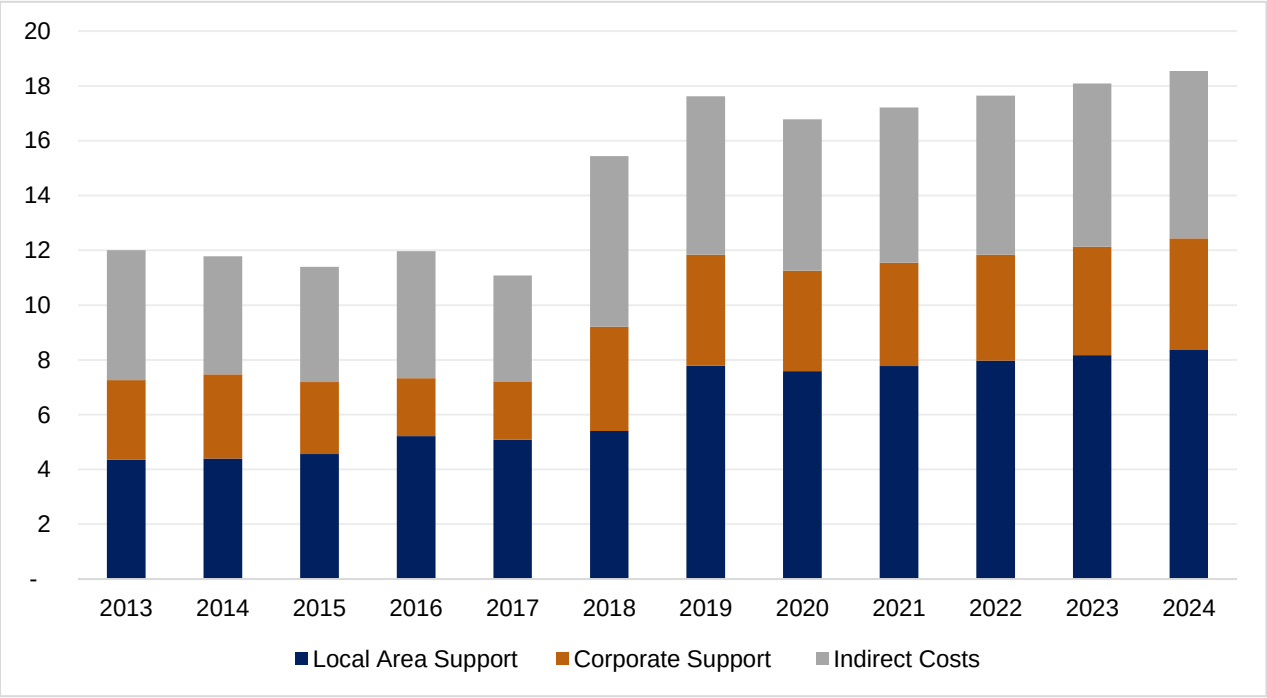
- SunWater's non-direct costs were consistent with the QCA's budget over the previous price path.
- SunWater has proposed to modify its approach to allocating non-direct costs between customers resulting in the forecast non-direct costs allocated to the Burdekin scheme being significantly higher than past actual expenditure.
- SunWater's non-direct costs relating to irrigation increase from an actual $11.1 million in 2017 to a forecast $17.6 million in 2019 representing a $6.5 million increase in two-years.
- SunWater's submission does not explain the reason for the 58 per cent increase in non-direct costs
- The QCA should consider SunWater's proposed cost allocation methodology for overhead and indirect costs and identify If there are opportunities to suggest a more equitable and transparent method.

3.6.1 Analysis of SunWater's overall non-direct costs for all schemes

To clarify terminology, SunWater uses the terms non-direct costs to collectively refer to (corporate) overhead plus indirect plus local overhead (local area support) costs.

SunWater recovers its overhead costs from its irrigation and non-regulated commercial customers. Overall, SunWater's non-direct costs relating to irrigation increased from an actual $11.1 million in 2017 to a forecast $17.6 million in 2019 – this is a $6.5 million increase in two-years. Thereafter, there is a general upward trend for the duration of the price path.

Figure 3.11: SunWater's non-direct costs – All schemes ($ millions)



Source: SunWater pricing model, output graph data tab

SunWater's submission does not explain the reason for the 58 per cent increase in non-direct costs. SunWater needs to outline its total non-direct costs, including non-regulated customers. Have all non-direct costs increased at this rate, or just irrigation costs?

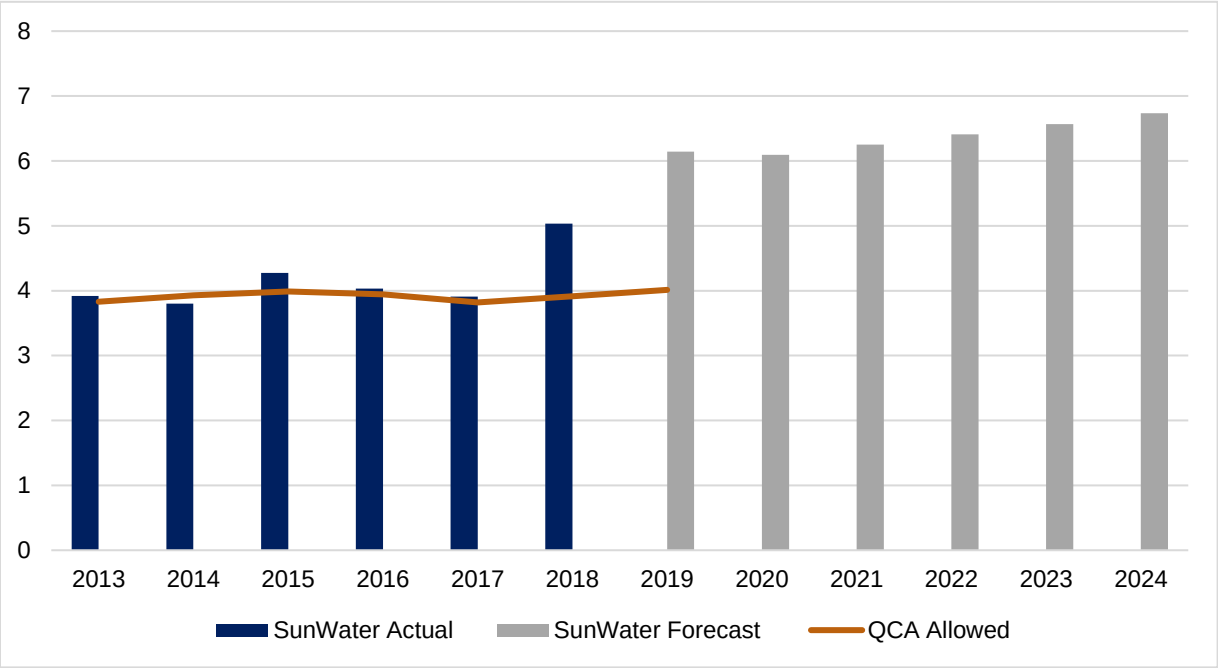
SunWater has proposed to modify its approach to allocating non-direct costs between customers. The forecast non-direct costs allocated to the Burdekin scheme are significantly higher than past actual expenditure. It is not possible to ascertain from SunWater submission and model whether this is due to an overall increase in non-direct costs and/or because of the change in allocation.

For the QCA to assess the merits of changing the allocation of non-direct costs, there needs to be a comparison of the allocation between the two methods. This has not been presented. The QCA considered this topic in detail in the previous review and accepted SunWater's proposal. It is not clear why a change is needed. This needs to be explained (or an alternative justifiable / equitable approach adopted).

3.6.2 Analysis of BHWSS distribution non-direct costs

The distribution scheme non-direct costs are also forecast to rapidly increase as shown in Figure 3.12.

Figure 3.12: Total distribution opex non-direct spend comparison ($ millions)

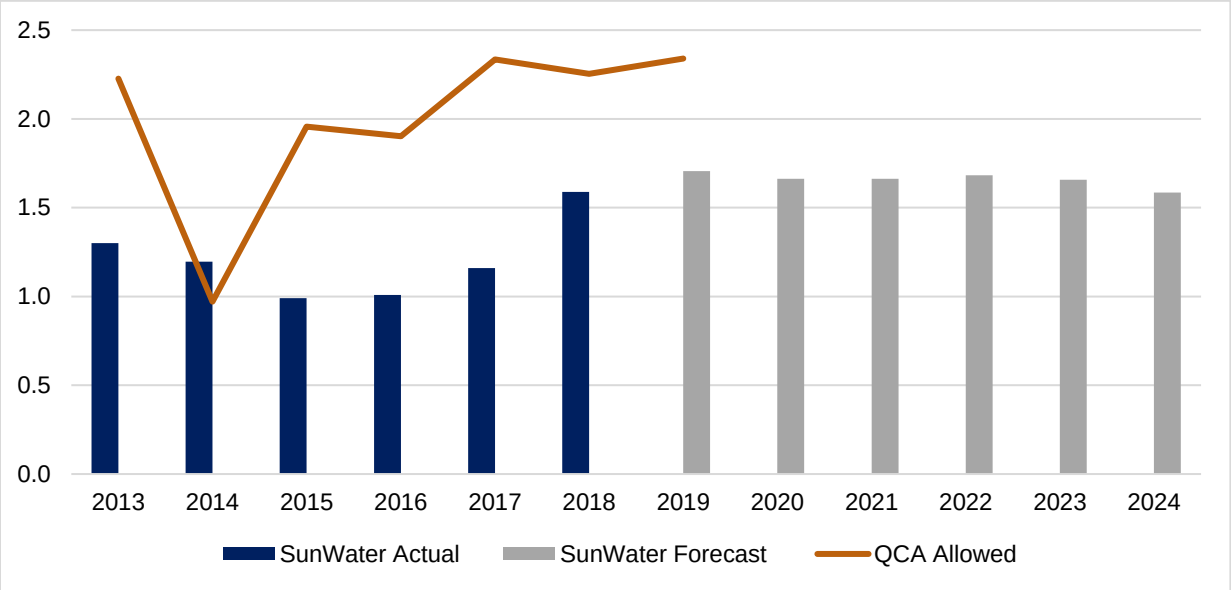


SunWater's non-direct costs were broadly consistent with the QCA's budget over the previous price path. However, SunWater is forecasting non-direct costs for distribution to increase by 57 per cent from $3.9 million to $6.1 million between 2017 and 2019. This higher cost is then maintained through the remainder of the price path. The QCA must not allow this increase without first being satisfied that this increase is justified, prudent and efficient. Is the increase a result of total non-direct costs increasing (as above) or a result of the change in the allocation approach?

3.6.3 Analysis of BHWSS bulk non-direct costs

Similarly, for the bulk scheme, SunWater has kept within the QCA's budget for the previous price path, and then forecasts an increase of 47 per cent from $1.2 to $1.7 million between 2016/17 and 2018/19.

Figure 3.13: Total bulk non-direct spend comparison ($ millions)



3.6.4 Conclusions about non-direct costs

For irrigators to have confidence in the forecast costs, SunWater needs to:

- Explain why non-directs costs allocated to irrigation schemes are forecast to increase by 58 per cent over two years.
- If this is due to an overall change in non-direct costs, outline the additional functions they are undertaking to cause this cost increase and the benefits accrued to irrigators.
- Specify the portion of non-direct costs that are allocated to each scheme under the previous vs proposed approach. Does this result in a larger or smaller share to irrigators?

Given the QCA spent considerable time in assessing and approving SunWater's previously proposed approach, we submit that any change should be demonstrably better (equitable / beneficiary pays / justifiable) to warrant such a material cost allocation increase for this (and presumably other) scheme/s.

3.7 Distribution loss allocation of bulk costs to distribution prices

- The bulk cost allocated to distribution losses is a material item driving prices for distribution customers.
- BRIA believes that customers **should not be allocated** the full cost of the nominal medium priority distribution losses as set out in SunWater's submission.
- BRIA identifies that the volume of distribution losses used as an input to pricing should be based on the updated efficient requirement for those allocations using the most recent five years of water use data commencing in 2014-15 and including 2018-19 (**not** nominal allocations for distribution loss WAE).
- BRIA recommend reliance on the most recent five years of data, because during that period, SunWater demonstrated increased operational efficiency under LMA scrutiny and replaced water meters, rendering recent water use / losses data materially more accurate than it is in previous years.
- Accordingly, the QCA should adopt the same principles and methodology for allocating the costs associated with distribution losses as for the last review, with one exception – instead of using eight years of data, it should use the accurate recent five years of data.

- In doing so, the QCA will be adopting an approach that will provide SunWater with an increasing economic incentive to drive efficiencies within the scheme, reducing SunWater's reliance on excess loss allocations.
- SunWater will be able to manage the cost of maintaining the QCA's approach by trading surplus distribution losses in the temporary and permanent water trading markets.
- Under LMA, BRIA supported transfer of all distribution loss allocations, but would only have charged customers for the efficient loss requirement. Once the metering had been addressed, the LMA entity would have traded water to ensure that customers only paid for the efficient loss requirement.

3.7.1 Background

In the previous review, in its Volume 2 report, the QCA stated the following:

> *"The Authority has now confirmed that there are three means for reviewing distribution losses under the Water Act 2000. As a consequence, the Authority recommends that prudent and efficient bulk costs associated with distribution loss WAEs should be paid for by distribution system customers, excluding the costs associated with distribution loss WAEs held by SunWater in excess of that needed to meet required actual loss releases. SunWater should bear the costs of holding distribution loss WAE greater than is needed to supply distribution customers.*
>
> *The Authority's preliminary estimate of the excess distribution loss WAE is based on maximum actual distribution loss deliveries, adjusted for the level of water use in that year, based on available water use data from the past nine years up to and including 2010-11.*
>
> *For the Burdekin-Haughton Distribution System, the Authority recommends that customers are allocated 100% of the costs of high priority distribution losses, and* ***59% of the costs of medium priority distribution losses****. As a result, the remaining* ***41% of medium priority distribution loss costs are allocated to SunWater****.*
>
> *The Draft Report noted that high priority loss WAEs are routinely used to benefit medium priority customers. Where there are no high priority customers in a distribution system, the high priority loss WAEs are used exclusively for medium priority distribution customers. The use of high priority water also will be needed to supply medium priority customers when the medium priority announced allocation is low, not just zero. That is, when medium priority announced allocations are low for customers, the announced allocation for medium priority distribution loss WAE is equally low.*
>
> *In such circumstances, there is not enough medium priority distribution loss water available to fill the channels. Thus, high priority distribution losses water must also be released to help meet medium priority customer requirements.*
>
> *Therefore, medium priority customers derive a benefit from high priority distribution loss WAE and should be allocated costs accordingly. The Authority maintains its recommendation that the costs associated with high and medium priority distribution loss WAE are to be shared across all distribution customers.*
>
> *The Draft Report noted that SunWater is not issued WAE for bulk (storage and transmission) losses but is instead required to comply with operating and environmental management rules established by DERM. By contrast, SunWater is issued with distribution system loss WAEs.*
>
> *While the Authority considers that excess loss entitlements remaining in storages may, occasionally, be generating a benefit for river and distribution customers, the benefit is variable and cannot readily be determined. Further, the water planning framework does not prescribe a right for distribution customers to access unused distribution loss WAE."*

3.7.2 SunWater's submission

In the submission (Appendix I: Pricing arrangements for irrigation customers) SunWater stated the following:

"Distribution losses arise from operational factors including pipe leakage, distribution system or balancing storage seepage, evaporation losses from balancing storages and systems losses such as distribution system overflows or releases of water from distribution systems to allow for maintenance. SunWater was granted water allocations for the purpose of 'distribution loss', which account for losses involved in delivering water to customers in the distribution system. As water needs to be stored for this purpose, the charge to distribution customers, per delivered quantity of water, is higher than if there were no distribution losses. Distribution loss water allocations are separate to transmission and operating losses which apply to customers located on stream. These losses are accounted for in the announced allocation calculations.

In its 2012 decision, prices were based on what the QCA considered were the prudent and efficient costs associated with distribution loss water allocations; excluding the costs associated with distribution loss water allocations held by SunWater that the QCA believed were more than that needed to meet required actual loss releases. Any costs associated with these surplus distribution loss water allocations were absorbed by SunWater and not paid for by distribution system customers. The QCA based its estimates on the maximum actual distribution loss deliveries over the 2002/03 to 2010/11 period (nine years), adjusted for the level of water use in that year.

The approach taken by the QCA does not account for the variability and financial uncertainty of SunWater's operations. For example, there has been a diversification away from crops, such as sugarcane, into horticultural enterprises, such as mangoes, macadamia nuts and citrus, over the past decade. This diversification has led to an altered pattern of use which influences distribution losses. Other influences on SunWater's business include the use of new technologies and climate change, resulting in longer and more severe droughts and storms.

SunWater has reviewed the approach applied by the QCA in the previous decision and proposes to apply the following principles in the next price path period:

- *Where a distribution system is considering a transition to Local Management Arrangements (LMA), customers will bear the full distribution loss water allocation. This approach was supported by the Burdekin River Irrigation Area Board during consultation in June 2018.*
- *Where a distribution system has transitioned to LMA (or transitions to LMA during the irrigation review process), all distribution loss water allocations will become entitlements held by customers and will therefore bear an appropriate share of costs.*
- *Where a distribution system is not transitioning to LMA, distribution losses will be allocated using the same methodology as the QCA adopted in the 2012 decision (updated for maximum actual distribution loss deliveries that would have been required over the 2002/03 to 2016/17 period)."*

3.7.3 Analysis

Table 3 5 sets out the distribution loss allocations for the Burdekin Haughton under the QCA's approach in 2012 and SunWater's proposed approach for the next price path period.

Table 3 5: Comparison of distribution loss allocations

Distribution system	2012 Irrigation Price Review				Proposed approach [1,2]			
	Customer distribution loss allocation (ML)		SunWater distribution loss allocation (ML)		Customer distribution loss allocation (ML)		SunWater distribution loss allocation (ML)	
	High Priority	Medium Priority	High Priority	Medium Priority	High Priority		Medium Priority	
Burdekin Haughton	16,260	111,739	0	78,738	16,260	190,477	0	0

1. Reflects 2016/17 data. Any discrepancies in total numbers are due to the use of different data sets.

2. Based on maximum actual distribution loss deliveries over the 2002/03 to 2010/11 period.

Similarly, Table 3.6 set outs the percentage of distribution losses allocated to customers under the QCA's approach in 2012 and SunWater's proposed approach for the next price path period.

Table 3 6: Percentage of distribution losses (HP &MP) allocated to customers

	High Priority	Medium Priority
2012 Irrigation Price Review (QCA determination)	100%	59%
SunWater proposed approach current price review	100%	100%

SunWater is proposing that customers are allocated the full cost of high and medium priority distribution losses. BRIA has interpreted this to be full nominal distribution losses and reject this proposal on the grounds set out in in Volume 1 of the QCA's *Irrigation Price Review: 2012-17*

> The Authority recommends that prudent and efficient bulk costs associated with distribution loss WAEs should be paid for by distribution system customers, but these should exclude the costs associated with distribution loss WAEs held by SunWater in excess of that needed to meet required actual loss releases. SunWater should bear the costs of holding distribution loss WAE greater than is needed to supply distribution customers.

The QCA also found in its review that actual water use as a percentage of WAEs was higher (in most schemes) than delivered losses as a percentage of loss WAEs.

> SunWater appears to hold excessive distribution loss WAE in most distribution systems.

The cost of distribution losses is material due to the projected increases in bulk water costs, driven by substantial increases in SunWater's operating and capital costs for this scheme. Recent years of data – recording actual losses – may assist the QCA to come to a view on this cost driver.

Table 3 7 and Table 3 8 present the QCA's method (previous review) in determining the allocation of distribution losses between customers and SunWater.

Table 3 7: Total Medium and High Priority Distribution Loss WAE (Burdekin Haughton Scheme 2003-2010)

	2003	2004	2005	2006	2007	2008	2009	2010*	Average
Distribution Loss WAE - MP & HP (ML)	206,737	206,737	206,737	206,737	206,737	206,737	206,737	206,737	**206,737**
Actual Loss (ML)	103,044	115,909	128,901	102,659	82,339	85,037	72,235	100,743	**98,858**
Actual loss as % of loss WAE	**50%**	**56%**	**62%**	**50%**	**40%**	**41%**	**35%**	**49%**	**48%**
Water use as % of WAE*	106%	95%	104%	77%	85%	66%	55%	79%	**83%**
Losses adjusted for water use	**47%**	**59%**	**60%**	**64%**	**47%**	**62%**	**64%**	**62%**	**58%**

Source: Volume 1 of the QCA's Irrigation Price Review: 2012-17

*Note: * QCA Error state 56% for 2010 - actual calculation results in 49%. The consequence is that the QCA overestimated efficient loss WAE by 1%. The answer should have been 58% not the 59% published.*

Table 3 8: Total water use and a percentage of WAE (Burdekin Haughton Scheme: 2003-2010)

	2003	2004	2005	2006	2007	2008	2009	2010	Average
MP Distribution WAE (ML)	290,801	290,801	290,801	290,801	290,801	290,801	290,801	290,801	**290,801**
MP Distribution Use (ML)	308,249	276,261	302,433	223,917	247,181	191,929	159,941	229,733	**242,455**
Water use as % of WAE*	106%	95%	104%	77%	85%	66%	55%	79%	**83%**

Source: Volume 1 of the QCA's Irrigation Price Review: 2012-17 & BRIA analysis

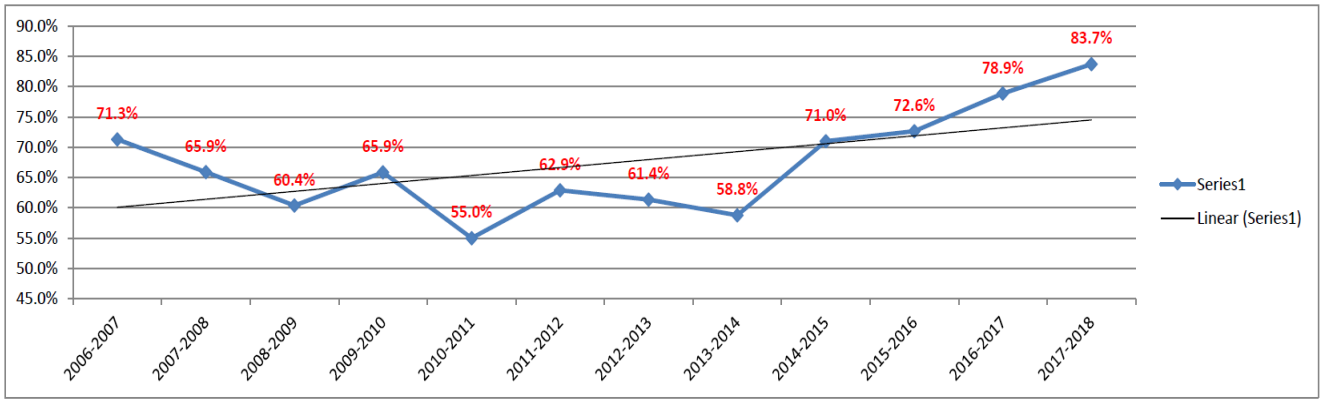
As set out in Table 3.8 (above), the QCA used water use as a portion of WAE to adjust the losses requirement to calculate the maximum loss requirement in a manner that accounted for announced allocations.

It is evident that the basis of the QCA's last decision to allocate 59 per cent of the costs of MP distribution losses to customers was **actual losses adjusted for historical water use.**

BRIA agree with the use of this method for the proposed pricing period, with one exception – the period of data should be for the most recent five years commencing in 2014-15 and including 2018-19 (not nominal allocations for distribution loss WAE).

Since 2014-15, SunWater has shown more attention to metering with the employment of a dedicated metering officer. It was during the LMA investigations that the Board pointed out metering deficiencies in the scheme, (both bulk and customer metering). SunWater has acted on this and as a result metering is improving, with water sales now starting to resemble the requirements of sugarcane. BRIA has limited confidence in the loss allocations data prior to 2014-15. This figure demonstrates improvements in scheme efficiency in recent years.

Figure 3.14: BHWSS 12 years of data on scheme efficiency



BRIA recommend reliance on the most recent five years of data, because during that period, SunWater demonstrated increased operational efficiency under LMA scrutiny and replaced water meters, rendering recent water use / losses data materially more accurate than it is in previous years.

Accordingly, the QCA should adopt the same principles and methodology for allocating the costs associated with distribution losses as for the last review but rely on the most accurate recent five years of data. In doing so, the QCA will be adopting an approach that will provide SunWater with an increasing economic incentive to drive efficiencies within the scheme, reducing SunWater's reliance on excess loss allocations. SunWater will be able to manage the cost of maintaining the QCA's approach by trading surplus distribution losses in the temporary and permanent water trading markets.

BRIA would like the QCA to source the incomplete data from SunWater in Table 3 9 and (highlighted in orange). Further clarification of what water customer allocation were used is also needed.

Table 3 9: Total Medium and High Priority Distribution Loss WAE (Burdekin Haughton Scheme: 2015 to 2019)

	2015	2016	2017	2018	2019	Average
Distribution Loss WAE - MP & HP (ML)	206,737	206,737	206,737	206,737		
Actual Loss (ML)*						
Actual loss as % of loss WAE						
Water use as % of WAE*						
Losses adjusted for water use						

Source: Volume 1 of the QCA's Irrigation Price Review: 2012-17

**Actual water loss data required from SunWater to complete*

Table 3 10: Total water use and a percentage of WAE (Burdekin Haughton Scheme: 2015 to 2019)

	2015	2016	2017	2018	2019	Average
(MP Distribution WAE (ML)	290,801	290,801	290,801	290,801		
MP Distribution Use (ML)						
Water use as % of WAE*						

Source: Volume 1 of the QCA's Irrigation Price Review: 2012-17

3.7.3.1 Distribution loses for schemes transitioning to LMA

Contrary to SunWater's submission Appendix I (2018) the Burdekin Haughton LMA has confirmed that it did not accept prices on the basis of distribution loss WAE. Rather it was prepared to receive the full distribution loss allocation, and as the service provider pay for the excess WAE until such time that it can be sold.

As is proposed for SunWater, under BRIA's recommendation, the local management entity would have managed the cost of maintaining the QCA's approach by trading surplus distribution losses in the temporary and permanent water trading markets – once it had improved scheme efficiency (including metering).

3.7.3.2 Distribution loss WAE trading

The benefit of not allowing SunWater to recover the cost of its unnecessary distribution loss WAE is to drive such allocations into the temporary and permanent trading market. The incentive will see SunWater monetise surplus distribution loss allocations. Benefits include reducing costs to customers, increasing regional economic activity and development, moving water to higher value uses and increasing the liquidity of the trading market particularly at times of scarcity. SunWater should only recover the costs associated with the efficient level of distribution loss allocations. This should be verified using recent data, which we request from the QCA.

3.7.4 Recommendation

BRIA submits that customers **should not be allocated** the full cost of medium priority distribution losses as set out in SunWater's submission.

We recommend that the QCA adopt the same methodology for distribution loss allocation as was used in the last determination. However, we ask that the QCA incorporate recent losses water use data from **2014-15 to 2018-19**, adopting the most recent five years of data (not using the most recent eight years of data), because SunWater has begun replacing meters and improved metering and operational efficiency since 2014-15.This will ensure that efficient distribution loss allocation needs will inform customer prices in this scheme, and that SunWater is incentivised to move unneeded distribution losses water to productive use ensuring efficient pricing and scheme operation. SunWater is able to retain that additional revenue as a reward for its efficiency improvements resulting in its ability to engage in beneficial water trading.

DNRME has confirmed that SunWater can temporarily or permanently trade distribution losses that are not needed. Accordingly, we urge the QCA to recommend an approach that will provide SunWater with an economic incentive to drive efficiencies within the scheme (i.e. reducing its unnecessary reliance on excess distribution losses).

3.8 Reallocating fixed and semi-fixed costs currently treated as variable costs

- The QCA should review cost allocation for all sections of the BHWSS.
- SunWater's increased variable costs will have unacceptable impacts on customers
- BRIA considers that it would assist the QCA to manage price impacts on customers, if it were to review SunWater's variable costs and reallocate costs that are fixed or semi-fixed.
- Semi-fixed costs should be re-assigned as fixed costs where SunWater has control.
- BRIA requests more detailed cost information and time to analyse the nature of fixed and variable costs in this scheme.
- The result of reassigning fixed and semi-fixed costs (currently included in variable charges) would be to help manage the referral notice's requirement to have regard to balancing future price impacts on customers against SunWater's requirement to recover its prudent and efficient costs.

We would appreciate any QCA effort to increase the common sense and transparency of the basis for prices. As part of this, BRIA submits that QCA should review cost allocation for all sections of the BHWSS.

SunWater's increased variable costs (and pricing policy that cost-reflective variable charges be adopted at the start of the price path) will have unacceptable impacts on customers, exceeding irrigator capacity to pay and pushing up prices in a manner not in the spirit of Minister Lynham's media statement announcing this review.

BRIA considers that it would assist the QCA to manage price impacts on customers, if it were to review SunWater's variable costs and reallocate costs that are fixed or semi-fixed (but are currently treated as variable) to SunWater's fixed cost pool for recovery via fixed charges.

Semi-fixed costs should certainly be re-assigned as fixed costs where SunWater has control (and customers do not). The impacts should be subject to further analysis by BRIA and the QCA – and consultation with irrigators – to avoid unsustainable increases in cost-reflective fixed charges. BRIA requests more detailed cost information and time to analyse the nature of fixed and variable costs in this scheme.

The result of reassigning fixed and semi-fixed costs (currently included in variable charges) would be to help manage the referral notice's requirement to have regard to balancing future price impacts on customers against SunWater's requirement to recover its prudent and efficient costs.

3.9 Electricity

- Electricity costs are a significant and increasing component of total water charges.
- BRIA would recommend that the QCA place more scrutiny on SunWater's electricity forecasts.
- BRIA does not support SunWater's proposed electricity cost 'pass thru' proposal. Such a mechanism presents three major disadvantages:
  - Reduces SunWater's effort in forecasting electricity
  - Removes any incentive for SunWater to manage its electricity costs and ensure that only prudent and efficient costs are incurred
  - Substantially increases price volatility and uncertainty – undermining one of the fundamental benefits of a price path, which is to improve price certainty, enabling irrigators to make investment decisions.
- Ergon's tariffs are made up of the following charges including:
  - a flat daily connection charge
  - a demand charge based on the maximum amount of power used in each month above a demand threshold, measured in kVA
  - a usage charge based on the amount of energy used in, measured in kWh.
- Under SunWater's model for this review 100% of electricity costs are treated as variable
- BRIA submits that the fixed components of electricity charges such as the flat daily connection charge should be allocated to the fixed component of water charges. This is consistent with the QCA's principles where it recommended that fixed costs be recovered via fixed charges and variable costs be recovered via variable (water use) charges.
- In the previous review, the QCA used an average of the past 15 years of water use to derive the variable charges. In this review, BRIA proposes a better methodology. The opportunity to do so has been created by BRIA's recommendation to retain only variable electricity costs in the variable water charges. Specifically, **BRIA recommend that the QCA estimate the electricity unit cost per ML** as a key input to variable water use charges. This estimated should not rely on averages using past water use.
- We recommend the QCA also review SunWater's projected escalation rate for electricity charges, to ensure that forecast future price changes are reflected in SunWater's forecast costs and prices.

3.9.1 Background

Electricity costs are a significant and increasing component of total water charges. Ergon's tariffs are made up of the following charges including:

- a flat daily connection charge
- a demand charge based on the maximum amount of power used in each month above a demand threshold, measured in kVA
- a usage charge based on the amount of energy used in, measured in kWh.

3.9.2 Fixed electricity cost allocation

Electricity costs are a significant and increasing component of total water charges.

BRIA submits that the fixed components of electricity charges such as the flat daily connection charge should be allocated to the fixed component of water charges.

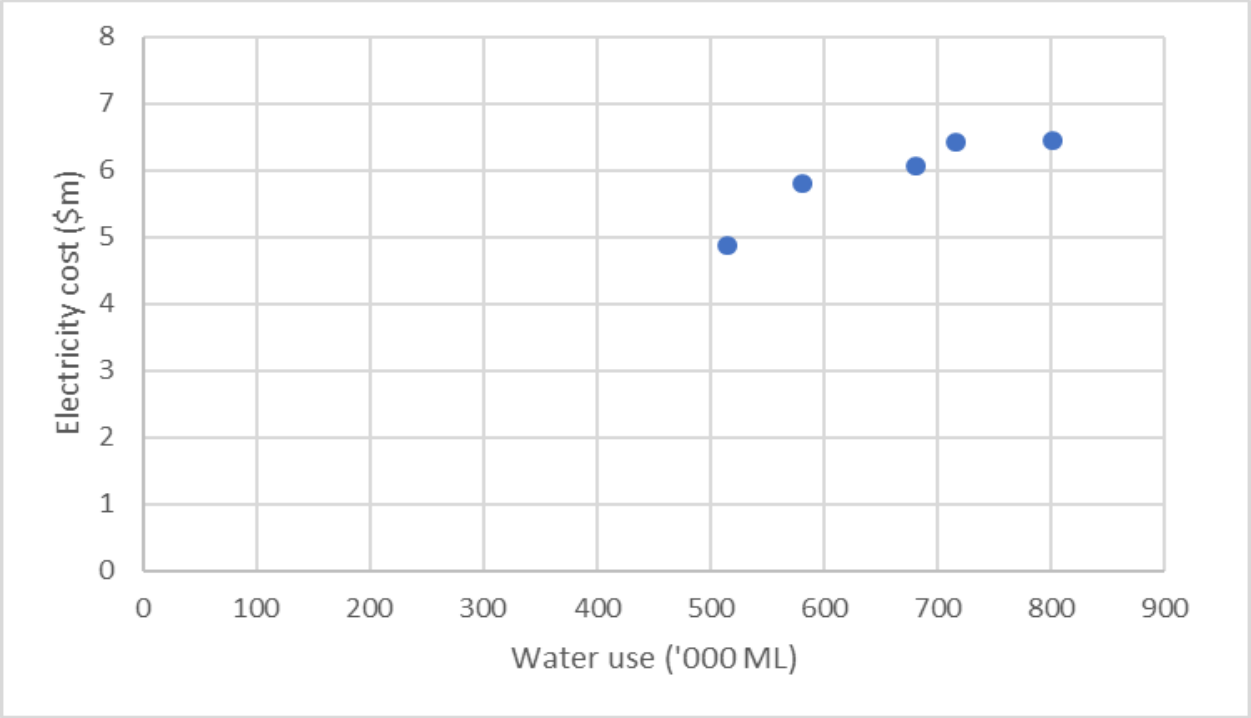
This is consistent with the QCA's principles established in Volume 1 of the previous SunWater review, where it recommended that fixed costs be recovered via fixed charges and variable costs be recovered via variable (water use) charges.

3.9.3 Electricity demand charge cost allocation

BRIA submits that demand charges should be treated as a fixed cost as it does not vary directly with water use.

Demand charges are typically incurred whenever a pump is turned on during the month, whether for 15 minutes or for 30 days. Accordingly, the demand charge is paid in most months, however, the volume of water supplied is very variable. As is shown below, the cost of electricity is relatively constant over the past five years.

Figure 3.15: Electricity cost vs water use



Note: Electricity costs have been escalated at 2.5% to 2018-19 dollars.

Source: SunWater NSPs

If SunWater recovered demand charges through the volumetric charge only, then SunWater would face significant revenue risk. It would need to pay for the monthly demand tariff irrespective if the amount of water delivered. The demand charge could exceed the revenue received from water deliveries.

In the past, the QCA has allocated costs to the party best able to manage the risk and therefore concluded that whomever that party is, should bear that cost. Customers have limited or no control over the management of peak demand / load management; whereas SunWater as the pump operator has a high degree of day-to-day operational control about how and when pumps (and other electricity using equipment) are deployed.

As importantly, reducing semi-fixed or demand charges – peak lopping – is within SunWater's control, for example, in most cases it can invest in a variable speed drives, soft starts or other devices to reduce peak load. SunWater can also introduce in-channel monitoring and optimise delivery of water to a distribution scheme to reduce peak electricity use.

By contrast, customers cannot control SunWater's peak demand. Finally, as indicated in its submission (2019 NSP) SunWater can change tariffs to minimise such charges.

3.9.4 Analysis

Distribution electricity costs for the scheme have slightly exceeded the QCA's budget for the previous price path (0.18%). However, this is primarily due to 2017 when costs were 16 per cent lower on average than the rest of the years in the pricing period.

Between 2014 and 2016 SunWater's costs were 11 per cent higher than the QCA budget.

Figure 3.16: Annual routine distribution electricity costs Burdekin Haughton scheme ($ millions)

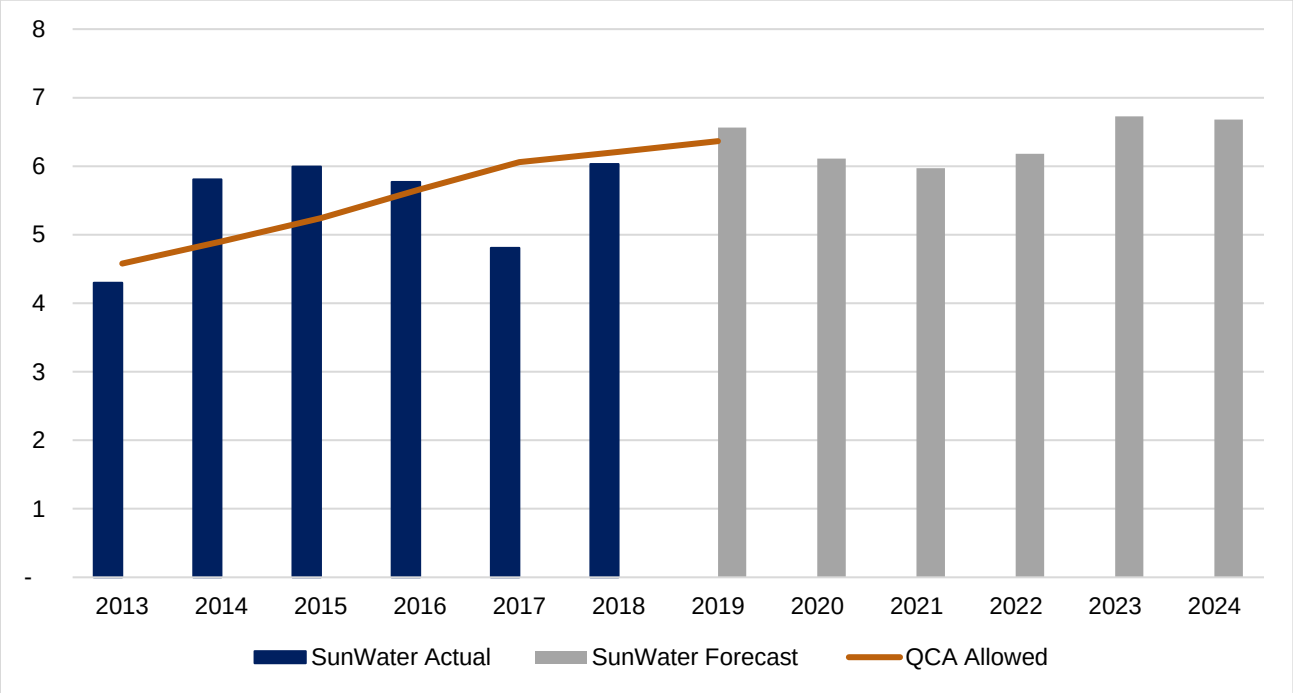


Table 3.11 outlines SunWater's forecast distribution electricity costs for the proposed pricing period.

Table 3.11: Change in SunWater's forecast distribution electricity costs ($ millions nominal)

	2019	2020	2021	2022	2023	2024	Total
SunWater Forecast	6.56	6.10	5.97	6.18	6.73	6.68	**38.23**
Percentage change (from previous year)		-7%	-2%	4%	9%	-1%	**2%**

SunWater is proposing a 2 per cent overall increase ($118,000) in electricity costs over the pricing period. However, across the two-years 2022 (4%) and 2023 (9%) costs are set to increase 13 per cent from $6 million to $6.7 million.

BRIA recommends that the QCA place more scrutiny on SunWater's electricity forecasts.

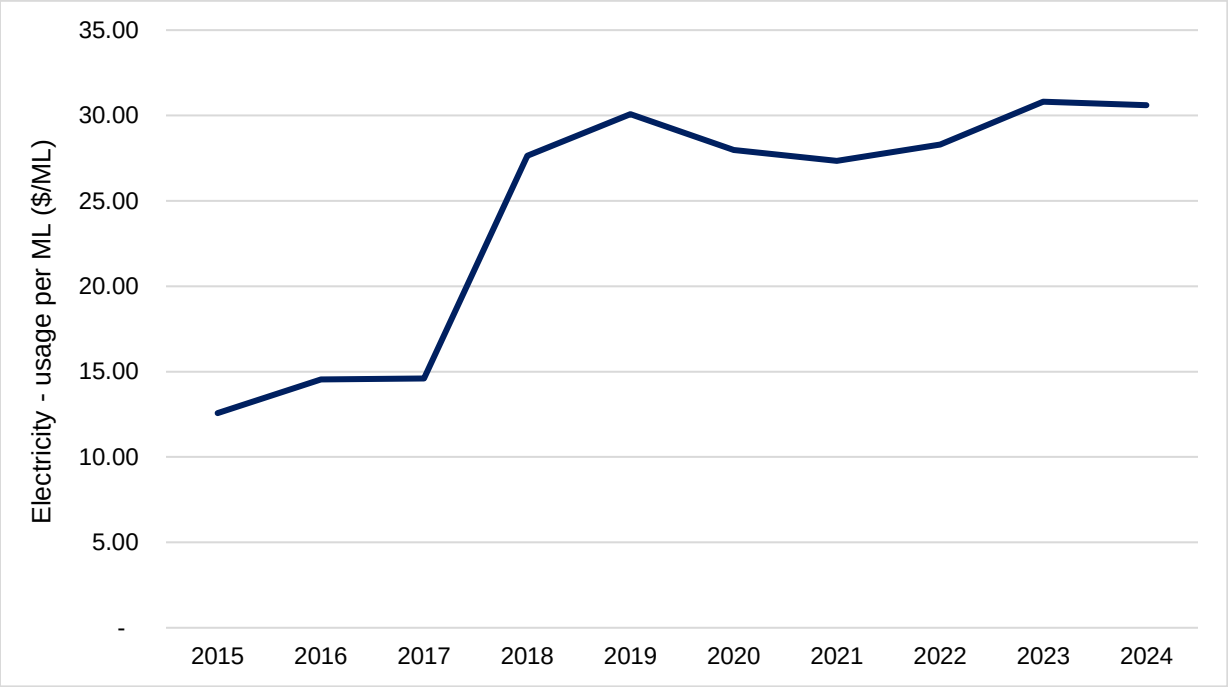
BRIA also would like SunWater to provide more detailed information surrounding the potential proposals to manage electricity. In particular, the potential for SunWater to implement off-grid options to reduce electricity costs, such as solar or diesel generators.

3.9.5 Electricity cost escalation

It would be appreciated if SunWater's projected escalation rate for electricity charges were to be reviewed by the QCA, to ensure that forecast future price changes are reflected in SunWater's forecast costs and prices. For example, BRIA recommend that the QCA ensure that forecast future price decreases (if any) – or a softening of increases – are reflected accurately in SunWater's forecast electricity costs and prices.

Figure 3.17 outlines the escalation of distribution electricity costs in the Burdekin Haughton scheme.

Figure 3.17: Escalation of distribution electricity costs per ML (Burdekin Haughton scheme)



SunWater pricing model – updated on 21 December 2018

3.9.6 Conclusions about electricity

BRIA does not support SunWater's proposed electricity cost 'pass thru' proposal. Such a mechanism presents three major disadvantages:

- Reduces SunWater's effort in forecasting electricity
- Removes any incentive for SunWater to manage its electricity costs and ensure that only prudent and efficient costs are incurred
- Substantially increases price volatility and uncertainty – undermining one of the fundamental benefits of a price path, which is to improve price certainty, enabling irrigators to make investment decisions.

BRIA submits that the fixed components of electricity charges such as the flat daily connection charge should be allocated to the fixed component of water charges.

This is consistent with the QCA's principles established in Volume 1 of the previous SunWater review, where it recommended that fixed costs be recovered via fixed charges and variable costs be recovered via variable (water use) charges.

In the previous review, the QCA used an average of the past 15 years of water use to derive the variable charges. In this review, BRIA proposes a better methodology. The opportunity to do so has been created by BRIA's recommendation to retain only variable electricity costs in the variable water charges.

Specifically, BRIA recommend that the QCA estimate the electricity unit cost per ML as a key input to variable water use charges. This estimate should not rely on averages using past water use.

We recommend the QCA also review SunWater's projected escalation rate for electricity charges, to ensure that forecast future price changes are reflected in SunWater's forecast costs and prices.

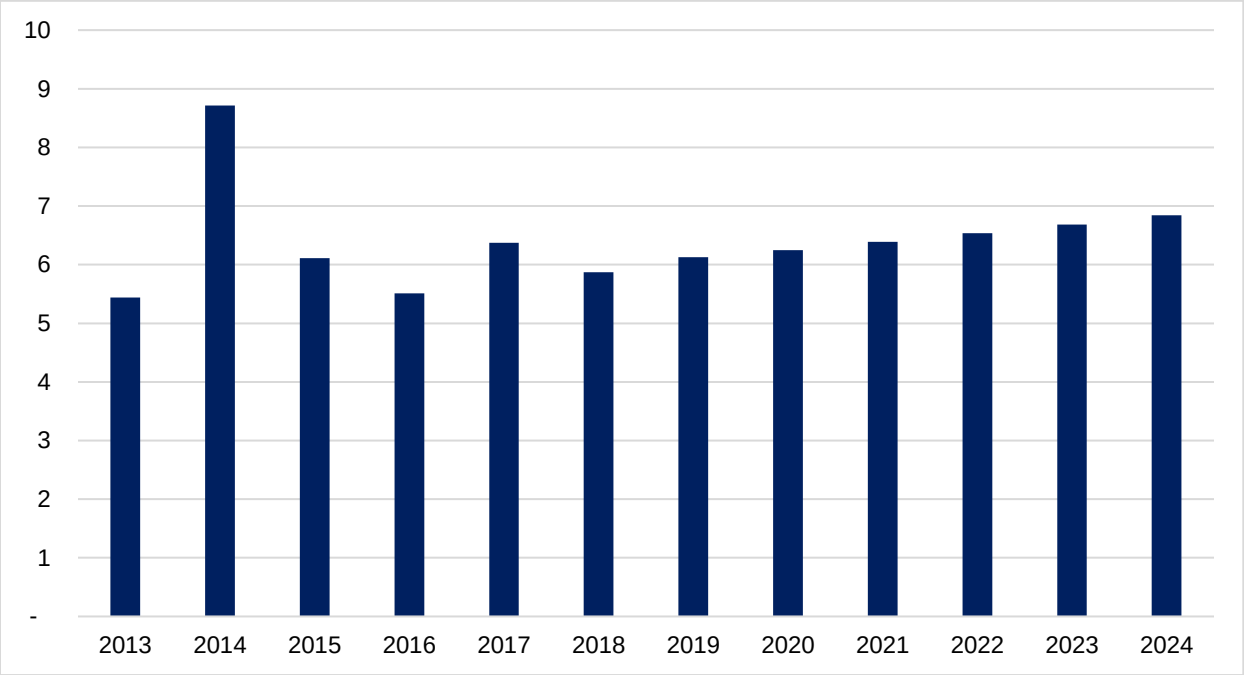
3.10 Insurance

- BHWSS bulk insurance costs are forecast to increase **35 per cent** from $569,000 to $766,000 between 2016 and 2019. In addition, during the new price path (2020-2024) costs are proposed to increase **11 per cent** from $766,000 to $856,000.
- This significant increase needs to be justified by SunWater.
- Investigating the performance of the current insurance program should be considered. Many schemes have seen large increases in insurance costs recently due to extreme weather and flood events.
- In the interests of transparency, BRIA seeks confirmation that SunWater's flood-related non-routine expenditure has been excluded from the calculation of the renewals annuity balance, and that SunWater is only insuring assets that can be successfully claimed against (e.g. not uninsurable structures).
- In the previous review, where SunWater was unable to forecast revenue from insurance payouts (i.e. successful claims), the QCA recommended that the cost of flood-damage repairs also be excluded from capex and, therefore the annuity.
- The QCA recognised that once a flood claim was resolved, SunWater could submit its costs (net of payment received from the insurer) for recovery from customers. BRIA considers that this was the appropriate approach and recommends that the QCA adjust SunWater's current proposals accordingly.

3.10.1 SunWater's proposal

Overall SunWater's insurance expenditure relating to irrigation increased from an actual $5.5 million in 2016 to a forecast of $6.1 million in 2019 – a $0.6 million increase over two-years. Thereafter, a general upward trend occurs for the duration of the price path.

Figure 3.18: SunWater's insurance costs all schemes ($ millions)



3.10.2 Analysis of SunWater's bulk insurance for BHWSS

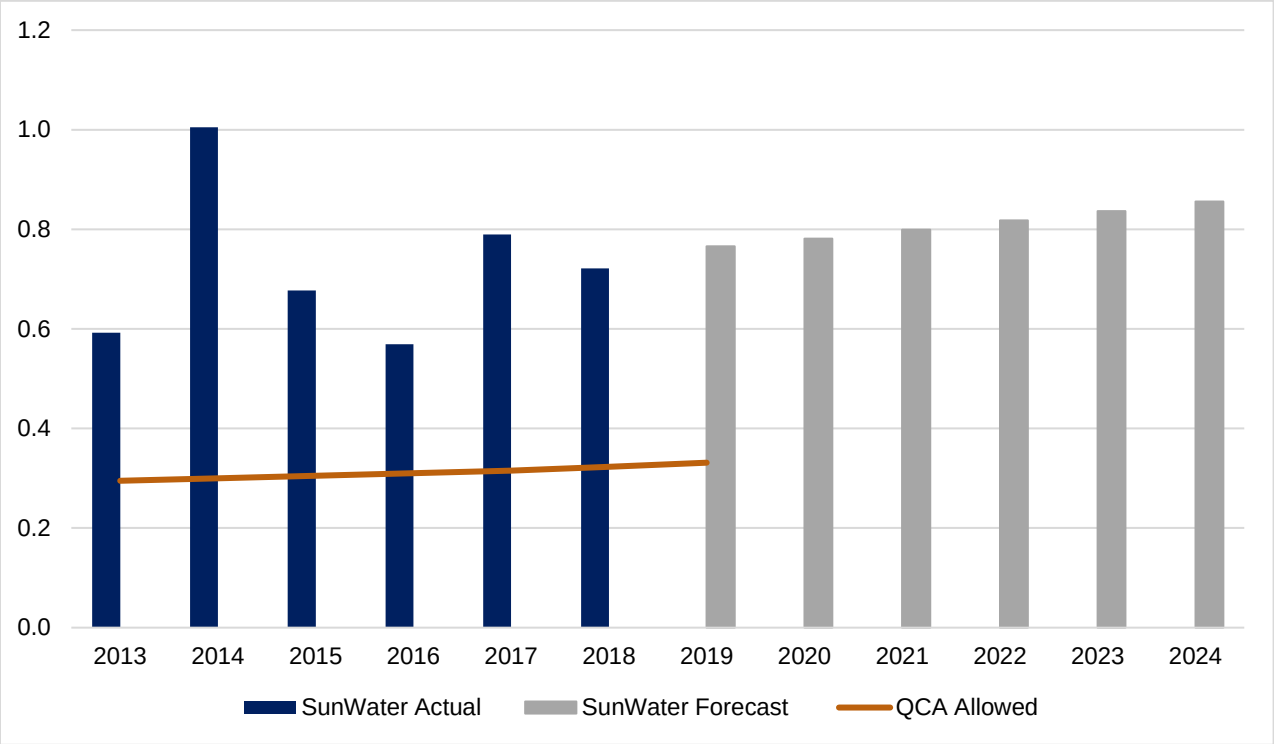
The Burdekin bulk insurance costs are set to increase **35 per cent** from $569,000 to $766,000 between 2016 and 2019. In addition, during the new price path (2020-2024) costs are proposed to increase **11 per cent** from $766,000 to $856,000.

BRIA understands that main driver of insurance costs is the risk appetite among insurers which is largely outside the control of SunWater. BRIA however also considers that insurance costs are continually rising. It is important to guarantee that only insurable assets are being insured.

Investigating the performance of the current insurance program should also be considered. Many schemes have seen large increases in insurance costs recently due to extreme weather and flood events.

The bulk insurance expenditure comparison forecast is shown in Figure 3.19

Figure 3.19: BHWSS bulk insurance spend comparison ($ millions)

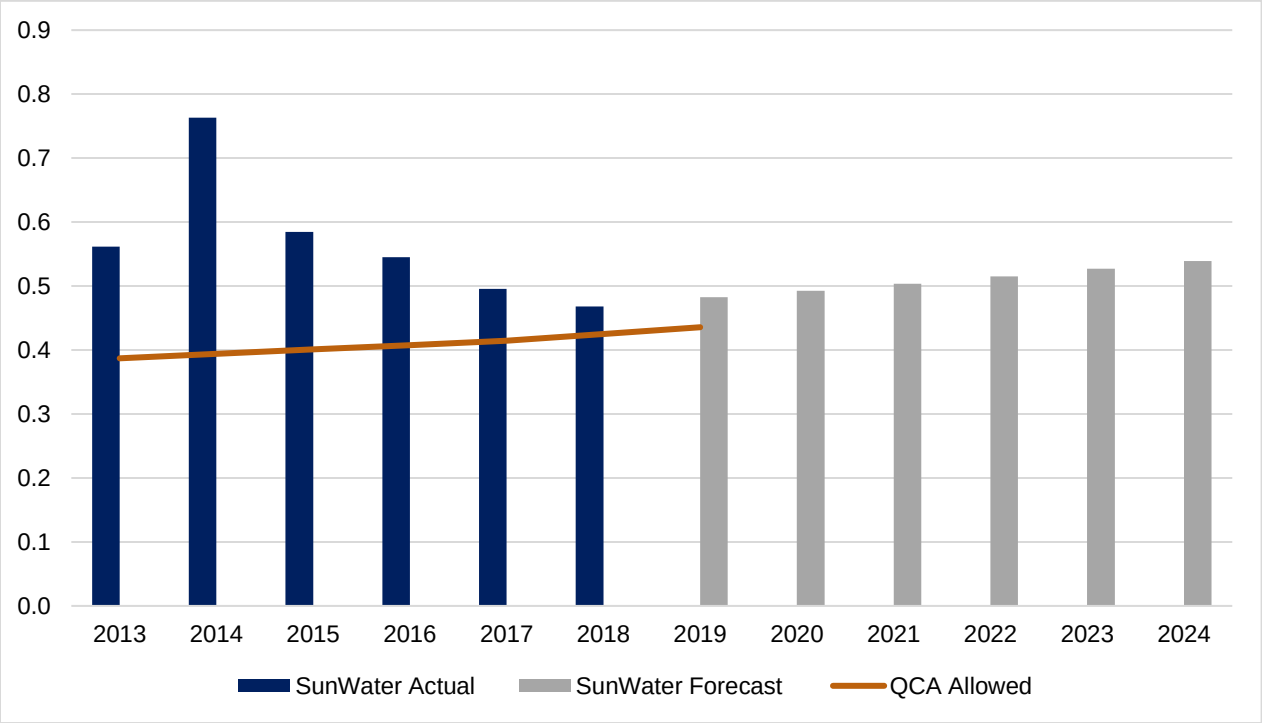


3.10.3 Analysis of SunWater's distribution insurance for BHWSS

Similarly, for the distribution scheme SunWater has exceeded the QCA allowance for insurance expenditure by 47% (2013-2017 period). However, distribution insurance costs are set to decrease 11 per cent between 2016 and 2019 from $545,000 to $483,000. Further to this between the pricing period (2020-2024) costs are proposed to increase 10 per cent from $492,000 to $539,000.

The distribution insurance expenditure comparison forecast is shown in Figure 3.20.

Figure 3.20: Total distribution insurance spend comparison ($ millions)



3.10.4 Outstanding insurance claims

The SunWater submission and model lack detail on the outstanding claims for each scheme.

In the interests of transparency, BRIA seeks confirmation that SunWater's flood-related non-routine expenditure has been excluded from the calculation of the renewals annuity balance, and that SunWater is only insuring assets that can be successfully claimed against (e.g. not uninsurable structures).

In the previous review, where SunWater was unable to forecast revenue from insurance payouts (i.e. successful claims), the QCA recommended that the cost of flood-damage repairs also be excluded from capex and, therefore the annuity.

The QCA recognised that once a flood claim was resolved, SunWater could submit its costs (net of payment received from the insurer) for recovery from customers. BRIA considers that this was the appropriate approach and recommends that the QCA adjust SunWater's current proposals accordingly.

Therefore, BRIA submits that the QCA review SunWater's non-routine expenditure and renewals annuity balance. Including the breakdown of outstanding insurance claims, value and cost by each scheme.

3.10.5 Conclusion about insurance

For irrigators to have confidence in the forecast costs, SunWater needs to:

- Explain why (e.g. bulk) insurance costs are set to increase by 35 per cent (BHWSS) over three years
- Investigate the performance of the current insurance program and clarify that only insurable assets are being insured

- Justify the significant change in overall insurance costs for the Burdekin Haughton scheme forecast for 2020-2024
- Confirm that SunWater's flood-related non-routine expenditure (capex) has been excluded from the calculation of the renewals annuity.

BRIA notes that in the previous review, where SunWater was unable to forecast revenue from insurance payouts (i.e. successful claims), the QCA recommended that the cost of flood-damage repairs also be excluded from capex and, therefore the annuity. The QCA recognised that once a flood claim was resolved, SunWater could submit its costs (net of payment received from the insurer) for recovery from customers.

BRIA considers that this was the appropriate approach and recommends that the QCA adjust SunWater's current proposals accordingly.

3.11 Flood Monitoring and Reporting

Irrigators should not pay the costs for flood monitoring and reporting.

BRIA understand that these are *Inspector General Emergency Management* (IEGM) requirements (e.g. reporting during flood events). This is in addition to the costs already being paid by customers for the extensive network of SunWater gauging stations, which are available to be used for flood modelling and monitoring by government departments and the public.

BRIA do not accept that irrigators should be responsible for paying this new and additional IEGM cost, as these services are unambiguously provided for the benefit of the broader community. Government and the community are clear beneficiaries of this discrete provision and BRIA recommend that it not be recovered from irrigators.

3.12 Metering

SunWater should ensure that all water delivery is accurately metered as a matter of urgency to ensure equitable cost sharing.

Inefficient metering of water usage results in increased distribution losses and results in inequitable allocation of costs across the BHWSS. SunWater should be required to ensure that all water delivery is accurately metered to address this issue. This includes SunWater's own bulk metering (e.g. assisting with distribution loss calculations) and metering of customer water use data.

3.13 Recreation costs

Irrigators should not meet the costs of recreation facilities.

BRIA submits that the process of excluding recreation costs from irrigation pricing should not impose transitional costs on irrigators. For example, is it **not appropriate** that SunWater carry out works in recreation areas and pass the cost through to irrigators (e.g. as non-routine expenditure)? The referral notice excludes recreational area costs for the next price path – BRIA submits that this also excludes transitional costs and the cost of any works carried out in recreational areas.

3.14 Town water supply - Water treatment costs

In Clare and Millaroo, SunWater treats water for urban use. These costs should be explicitly excluded, and not recovered through irrigation prices. This is consistent with the previous review and SunWater should confirm its continuation of this approach.

3.14.1 Recommendation

BRIA recommend that the QCA exclude from irrigation prices all costs associated with SunWater treating water for urban use in Clare and Millaroo.

3.15 Giru Benefitted Area pricing methodology

3.15.1 Background

The QCA's Volume 2 report stated that:

> The Giru Benefited Groundwater Area is supplied through the Haughton Main Channel and Balancing Storage and consists of natural channels, relift pump stations and lagoons. The Haughton River is regulated by the Val Bird and Giru Weirs, both of which are managed to maximise recharge to the groundwater area. In the 2006-11 review, the charge for irrigators in the Giru Groundwater Area was assessed as half the total channel charge (bulk plus distribution excluding the drainage charge).
>
> The discounted charge applied for any water usage up to twice the assessed natural yield. Water purchased above this limit was to be charged at the full channel rate, excluding the drainage charge.
>
> According to the Interim Resource Operations Licence (IROL) (DERM, 2000), the total surface and groundwater allocation in the Giru Benefited Area was 40,249 ML. Of this, 19,700ML was supplied by the natural yield of the Haughton system, while 20,549 ML was supplied from the Burdekin River, via the Haughton Main Channel. This appears to be the basis for the provision that 49% of volumes are attributable to natural yield. Currently, the total WAE is 40,184 ML.
>
> In the absence of any more recent details relating to hydrological assessments of natural groundwater yields, the Authority proposed to continue the current long-standing arrangements. That is, the charge for the Giru Benefited Groundwater Area would be set to recover revenue equivalent to 51% of the bulk charge and 51% of the distribution system charge. The Authority considered that this level of cost recovery reflects the cost incurred by SunWater, as the remaining 49% was supplied by natural yield.
>
> **For the future, the Authority recommended that SunWater investigate the hydrological circumstances of the Giru Benefited Groundwater area to confirm the current cost allocation or negotiate alternative arrangements with the irrigators.**
>
> As no submissions on this matter were received in response to the Draft Report and as the Authority has not identified any other grounds for altering its approach, the recommendation outlined in Draft Report is maintained.

3.15.2 BRIA analysis

Haughton Zone A customers should be treated in the same way as Giru Benefitted Area (GBA) customers. Hereafter, reference to GBA customers includes Haughton Zone A customers.

- The GBA pricing structure requires resolution as part of the long-term risk management for the scheme and to provide certainty to all customers. The QCA should develop equitable and sustainable prices.
- SunWater submitted that it would be appropriate for the QCA to review the cost allocation method and discounted charges that currently apply in the GBA. SunWater's model implies that all distribution customers including GBA customers will pay the same charges in the next price path.
- The SunWater model implies a substantial change in pricing policy and while it may not have been SunWater's intention, the consequence of the QCA taking a different approach could be a material reduction in forecast revenue and increase in cost-reflective prices for non-GBA channel customers.

- Previously, the Giru and Val Bird Weirs in the Haughton Zone A area were classified as bulk assets.
- In February 2019, SunWater confirmed that Haughton Zone A / GBA is in the distribution system (i.e. the Haughton Zone A weirs are distribution assets). The implications are: (i) the weirs are now being paid for by all channel customers as part of distribution costs increasing the driver to increase the GBA charge to reduce cross-subsidisation of GBA customers by the majority of channel customers; (ii) losses in the Haughton Zone A area can now be treated as distribution losses (SunWater should be asked to confirm this); and (iii) any water taken from the Haughton Zone A should be considered deliveries from the distribution system and the standard distribution system charge should apply to every ML that passes through customer meters in the GBA and Haughton Zone A.
- SunWater has the cost-revenue data together with the metered diversions from the Haughton Main Channel, and customer usage in Haughton Zone A / GBA which should enable SunWater to make a firm recommendation on an equitable pricing structure for customers in Zone A / GBA.

3.15.3 BRIA options

In the absence of such a recommendation from SunWater, BRIA request the QCA to recommend a pricing structure after investigating the following options:

- **Option 1:** Haughton Zone A and GBA customers be recognised as distribution system customers for pricing purposes, have the same entitlement security as channel customers and entitlement to Burdekin River flood harvesting, commencing at the start of the new price path.
- **Option 2:** Water delivered from the channel (i.e. released from the Haughton balancing storage) be charged at channel prices. In addition, the costs associated with Haughton Bulk water assets (and the benefits they bring) be allocated to the Haughton Zone A and GBA customers. This is in line with the recommendations from the last QCA review:

  > ***"****The Authority notes that GBA customers currently pay a bulk plus a distribution system charge, adjusted for natural flows and recharge. A more cost reflective approach would involve separating the Val Bird and Giru Weirs from bulk water costs, and Giru Groundwater area charge should incorporate a bulk charge plus a share of the Haughton Main channel (as suggested by SunWater) as well as the specific costs associated with Val Bird and Giru Weir)."*
- **Option 3:** Retention of the current pricing arrangement in Zone A should only be considered where any cross subsidy is identified, made fully transparent, and paid by a CSO from Government. However, the consequence of the QCA taking this approach could be a material reduction in forecast revenue and an increase in cost-reflective prices for non-GBA channel customers. It is important for the QCA to confirm that when less than full cross-reflective channel charges are allocated to GBA customers that this will not increase cost-reflective prices for other channel customers (i.e. any cross-subsidisation of the GBA by channel customers will be discontinued).

3.15.4 Recommendations

It is recommended that under all options the QCA ensure the transition to full cost-reflective channel prices for Haughton Zone A and GBA customers is gradual and that the cost of transition is covered by a CSO and not by other irrigators.

BRIA also recommends that any surplus channel capacity in the Haughton Main Channel, made available as a result of Townsville not utilising the channel for future water delivery, be allocated to Haughton Zone A / GBA customers as a peak flow entitlement (PFE). GBA customers currently do not hold a PFE.

BRIA recommend that QCA review up-to-date metered bulk water diversions from the Haughton Main Channel into the Haughton River and the Giru Benefitted Area, contemporary metered customer use data and relevant cost data from SunWater.

To assist the QCA understand the GBA scheme – and to verify SunWater's revenue modelling – BRIA has prepared the following table with updated water release and water use volumes for the GBA. It shows the available past 19 years of data.

Table 3.12: SunWater (2018) - Updated 19-years of available data for Giru Benefitted Area

Year	Release from Haughton balancing storage to Haughton River for GBA (ML)	Total Water Use Haughton Zone A(ML)
1999/00	25,138	22,832
2000/01	14,160	27,315
2001/02	43,685	48,059
2002/03	60,037	51,253
2003/04	42,453	42,485
2004/05	45,257	48,609
2005/06	32,136	33,125
2006/07	31,556	37,937
2007/08	22,018	30,742
2008/09	19,101	27,061
2009/10	38,465	35,571
2010/11	5,872	6,677
2011/12	29,603	20,387
2012/13	26,873	20,610
2013/14	44,671	29,668
2014/15	47,405	46,422
2015/16	47,019	47,031
2016/17	29,357	33,502
2017/18	35,291	43,814
Average	**33,689**	**34,374**

Source: SunWater 2018

In addition, BRIA recommend that the QCA use Owen Droop's hydrology assessment *and* the GBA Haughton Zone A Review commissioned by SunWater. We understand that both reports have been provided to the QCA by SunWater.

3.15.5 Conclusions

BRIA has established that there is no capacity to pay real increases in the scheme and customers only have the ability to absorb CPI increases.

We note that the Ministerial Direction dictates an increase of $2.38 per ML plus CPI. BRIA notes that any transition to full cost-reflective charges in the GBA should be limited to $2.38 per ML (real) plus CPI on the Part A & C charge. In addition, QCA decisions on the cost-reflective variable Part B & D charges will need to consider whether such a substantial price change (e.g. from approximately $15 per ML to $30 per ML in one year) is affordable for GBA customers. BRIA considers that we have demonstrated, using our capacity to pay model, that such a change to Part B & D variable charges is unaffordable for all customers including in the GBA.

BRIA has considered but concluded that it cannot request a different (lower) price for the GBA benefitted *groundwater* use, as SunWater and DNRME consider groundwater to be the same water as surface water taken from the Haughton River. Essentially, the GBA is one scheme – including GBA surface and ground water – and there cannot be differential pricing within the single tariff group.

3.16 Gladys Lagoon pricing methodology

- SunWater submitted that it would be appropriate for the QCA to review the cost allocation method and discounted charges that currently apply to customers of Gladys Lagoon.
- BRIA submits that the prices in Gladys Lagoon require resolution as part of the long-term risk management for the scheme and to provide certainty to all customers and SunWater.
- SunWater's model is proposing to charge all distribution customers the one charge. This includes Gladys Lagoon customers paying the same charges as all other channel customers.
- BRIA has included this approach as one of the options to be considered by the QCA, but recommends that the QCA ensure the transition to full cost-reflective prices for Gladys Lagoon customers is gradual and that the cost of transition is covered by a CSO and not by other irrigators, given the very limited capacity to pay of our members.

3.16.1 Background

In the previous review the QCA's Volume 2 report stated the following:

> SunWater indicated that the charge for Glady's Lagoon included a legacy allowance for natural yield. SunWater submitted that the base tariff applies, albeit only for a portion of its WAEs.
>
> In reviewing historic pricing arrangements for Glady's Lagoon, the Authority found that, prior to 2006, the charge was structured to provide approximately 15% of revenue through the Part A charge and 85% through the Part B charge. In contrast, the base distribution system charge was in line with the broadly adopted 70/30 ratio of revenues.
>
> For the 2006-11 period, the charge structure for Glady's Lagoon was transitioned to a structure broadly in line with the channel charge structure. In total, the Glady's Lagoon charge was about 7% lower than the channel charge in terms of revenue recovery in 2006-07. In 2011-12, the Glady's Lagoon total charge is about 6% lower than the distribution system charge.
>
> According to Department of Natural Resources (DNR, 2001), supplemental releases are made from the Haughton channel network for supply to Glady's Lagoon. SunWater advised that the total WAE in Glady's Lagoon is 1,752 ML, of which 360 ML (20.5%) is natural flows.
>
> In the absence of more recent details relating to hydrological assessments of natural yields at Glady's Lagoon, the Authority proposed to recognise the natural flows to Glady's Lagoon for cost recovery purposes. The first 360 ML does not attract a charge, as SunWater incurs no costs to supply this water. However, the Authority recommended that the normal bulk and channel charges should apply to volumes delivered after the first 360 ML is supplied. There does not appear to be a basis to differentiate the charge for Glady's Lagoon from the standard distribution system charge.
>
> For the future, the Authority recommended that SunWater investigate the hydrological circumstances of the Glady's Lagoon area to confirm the current cost allocation or negotiate alternative arrangements with the irrigators.
>
> As no submissions on this matter were received in response to the Draft Report and as the Authority has not identified any other grounds for altering its approach, the recommendation outlined in Draft Report is maintained.

3.16.2 Analysis

SunWater's model charges all distribution customers the one charge. This includes Gladys Lagoon customers paying the same charges as all other channel customers.

BRIA has included this approach as one of the options to be considered by the QCA, but recommends that the QCA ensure the transition to full cost-reflective prices for Gladys Lagoon customers is gradual and that the cost of transition is covered by a CSO and not by other irrigators.

When less than full charges are allocated to Gladys Lagoon customers, it is requested that the QCA not allow this to drive-up cost-reflective prices for other channel customers.

BRIA also considers that QCA should recommend that SunWater install a bulk meter and float valve at the inlet structure into Gladys Lagoon. Improved bulk metering would provide confidence about future pricing decisions.

3.16.3 BRIA options

BRIA request the QCA to recommend a pricing structure after investigating the following options.

Option 1: Gladys Lagoon customers be recognized as distribution system customers for pricing purposes, have the same entitlement security as channel customers and entitlement to Burdekin river flood harvesting, commencing at the start of the new price path.

Option 2: SunWater install a bulk meter and float valve at the inlet structure into Gladys Lagoon and water delivered from the channel be charged at channel prices. Any additional water taken from Gladys Lagoon should be considered natural yield and attract no charge.

Option 3: Retention of the current pricing arrangement in Gladys Lagoon should only be considered where any cross subsidy is identified, made fully transparent and paid by a CSO from Government. It is important for the QCA to confirm that when less than full cost reflective channel charges are allocated to Gladys Lagoon customers that this will not increase cost reflective prices for other channel customers (i.e. any cross subsidization of Gladys Lagoon customers by channel customers will be discontinued).

BRIA recommend that Gladys Lagoon customers be recognised as distribution system customers for pricing purposes. It is recommended that the QCA ensure the transition to full cost-reflective channel prices for Gladys Lagoon customers is gradual and that the cost of transition is covered by a CSO and not by other irrigators.

BRIA recommend that SunWater install a bulk meter and float valve at the inlet structure into Gladys Lagoon, and all water delivered through the bulk meter be charged at channel distribution rates. Any additional water taken from Gladys Lagoon should be considered natural yield and attract no charge.

3.17 Fixed price increases

- The QCA should present its interpretation of the referral notice, in relation to the application of this increase to fixed tariffs.
- Specifically, does it apply to the combination of fixed Tariffs A and C only once (BRIA's position) or does it apply separately to each of Tariff A and C resulting in a $4.76 per ML yearly real increase (strongly opposed by BRIA)?
- It is our understanding that the referral notice implies the former interpretation was intended (i.e. the combined Tariff A and C will only increase by $2.38 per ML in real terms). However, confirmation is sought from the QCA.

3.17.1 Background

The Ministerial Referral Notice says:

> *if the prevailing total Fixed (Part A + Part C) price is less than the initial total cost-reflective Fixed (Part A + Part C) price, the prevailing total Fixed (Part A + Part C) price should increase each year by the Authority's measure of inflation plus an additional component of $2.38 per megalitre (from 2020-21, increasing by the Authority's measure of inflation each year) until the total cost-reflective Fixed (Part A + Part C) price is reached.*

In the previous review, the QCA applied the real price increase to bundled prices. That is, the real $2 increase applied to only the Part C price. However, in SunWater's original model, submitted to the QCA, the price $2.38 price increase applied to both Part A and Part C.

However, SunWater re-submitted its model on 21 December 2018

3.17.2 Analysis

This issue has been resolved and combined fixed prices are much lower. This amendment reflects the Ministerial Referral Notice. The comparison is shown in Table 3.13.

Table 3.13 : Price comparison of different SunWater models

	2019	2020	2021	2022	2023	2024
Original model						
Part A	3.40	3.48	4.41	6.95	9.61	12.40
Part B	0.53	0.54	0.57	0.58	0.61	0.62
Part C	38.15	39.01	42.35	45.84	49.47	53.26
Part D	28.88	29.53	32.94	34.04	36.69	36.64
Total fixed (A+C)	41.55	42.49	46.76	52.79	59.08	65.66
Total variable (B+D)	29.41	30.07	33.51	34.62	37.30	37.26
Updated model						
Part A	3.40	3.49	3.89	3.98	4.07	4.23
Part B	0.53	0.54	0.57	0.58	0.61	0.62
Part C	38.15	39.10	42.14	44.71	46.32	48.33
Part D	28.88	29.60	32.94	34.04	36.69	36.64
Total fixed (A+C)	41.55	42.59	46.03	48.69	50.39	52.56
Total variable (B+D)	29.41	30.14	33.51	34.62	37.30	37.26
Difference						
Part A	0	0.01	-0.52	-2.97	-5.54	-8.17
Part B	0	0	0	0	0	0
Part C	0	0.09	-0.21	-1.13	-3.15	-4.93
Part D	0	0.07	0	0	0	0
Total fixed (A+C)	0	0.1	-0.73	-4.1	-8.69	-13.1
Total variable (B+D)	0	0.07	0	0	0	0

Confirmation of our understanding is sought from the QCA.

3.18 Duration of Price path

The QCA is requested to clarify if the new path price will last for four or five years.

The referral notice requires that the QCA recommend irrigation prices for the period 1 July 2020 to 30 June 2024. This implies the following four financial years and a four-year price path. Given the effort required for such a review and that duration of current prices, we request clarification if new prices will apply for four or five years. If it is four, we would appreciate it if the QCA could explain the reasons for implementing a review for a shorter price path this time.

3.19 Clare Weir

BRIA notes that Lower Burdekin Water has submitted that the only beneficiary of an upgrade to the Clare Weir hydraulics gates is SunWater and its distribution customers, and that costs associated with upgrades be apportioned accordingly. The purpose of the Clare Weir is clearly defined within the Burdekin Basin Resources Operations Plan (ROP), which makes clear that the usable volume for all SunWater customers is the sum of the usable storage volumes of the Burdekin Dam and Clare Weir and both of these storages are part of the announced allocation rules for the Scheme. The ROP also sets out the operation requirements for the Clare Weir which include minimizing fluctuations in water levels downstream of the weir.

3.20 Drainage Charges

The Ministerial Direction to the QCA requires the Authority to make recommendations for appropriate prices including drainage prices to be charged by the business. BRIA recommends that there be no increase in BHWSS drainage charges in real terms, as current drain maintenance does not reflect the drainage charge revenue received by SunWater. BRIA also recommends that SunWater should provide full transparency on drainage maintenance expenditure in the future.

3.21 Leased Water Allocations

SunWater is currently inviting tenders for the acquisition of medium and high priority term allocations of water in the BHWSS. BRIA recommends that as part of this pricing review, the QCA should consider this additional revenue which will come into effect during the next price path.