Seqwater's Bulk Water Price Investigation 2023-2026

Response to the QCA's Draft Report

January 2022

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Contents

1 Introduction

Seqwater welcomes the Queensland Competition Authority's (QCA's) Draft Report as part of its investigation of our bulk water prices for the 2023-26 regulatory period. This includes the constructive feedback it has provided in the Draft Report and its identification of opportunities for further improvement.

This was also the first time the QCA has been required to consider a drought allowance, which has also coincided with a period where our South-East Queensland (SEQ) Water Grid storages have fluctuated around the key 60% drought response trigger under the Water Security Program version 2 (WSP2017). As at the time of lodgement of this submission, the region has welcomed some summer rainfall, replenishing storages above 60%. However, as we approach the drier months, we will continue to be fully engaged in drought preparedness and response activities in accordance with the WSP2017 and upcoming WSP version 3. We also continue to adapt and manage our priorities and work activities to maintain safe and reliable water supplies amidst the evolving challenges presented by the COVID-19 pandemic.

In our June 2021 Submission we set out the Bulk Water Pricing Principles that have underpinned our approach to this review. These are that prices should:

- be stable into the future, avoiding large increases or decreases;
- be based on standard regulatory pricing frameworks where possible, and adopt tariff mechanisms and assumptions that reduce the scope for large between-period price changes (e.g. recovery of drought costs);
- support prudent and efficient cost recovery and ensure that Seqwater has sufficient cashflow to manage its financial obligations; and
- be able to accommodate agreements for the recovery of rebates agreed between Seqwater and the SEQ water service providers, such as prudent discounts and a concealed leaks policy.

One of the most significant challenges is maintaining stable prices while ensuring we remain financially sustainable, particularly given our obligations to repay the Price Path Debt. While we accept many of the QCA's proposed positions as set out in the Draft Report, this response details our main areas of concern in terms of ensuring that our bulk water prices appropriately reflect our prudent and efficient costs. These include:

- the QCA's application of its top-down reasonableness check in assessing our Weighted Average Cost of Capital (WACC), noting that this is the first time its updated methodology has been applied in practice;
- the proposed tax allowance; and
- the extent to which its proposed operating expenditure allowance appropriately reflects our prudent and efficient costs into the future, having regard to changes in our business and operating environment over the current regulatory period.

A key issue relates to the costs we have incurred in preparing for and responding to drought, in particular, costs associated with the Luggage Point Advanced Water Treatment Plant (AWTP). This is relevant for the following proposals:

- the drought Review Event claim for the current regulatory period;
- the step change in operating expenditure for the 2023-26 regulatory period; and
- the forecast drought costs that would be used to estimate a drought allowance.

The QCA has requested more information to demonstrate the prudency and efficiency of these activities and the associated costs, which we have provided in this response (as well as commercial-in-confidence reports we have submitted separately). We also request the QCA re-examine its delineation between 'drought readiness'

and 'drought response' within the context of the drought Review Event and have therefore sought to explain why the activities we have undertaken all form an essential part of drought response under the WSP2017.

We support the QCA's preferred treatment of efficiency within the context of our operating expenditure and we will be providing an efficiency plan to the QCA as invited in the Draft Report.

We welcome the QCA's endorsement of the significant improvements we have made in planning, prioritising and delivering our capital program. It is proposing to accept our proposed capital expenditure and we support the additional $21 million be included in the forecast capital expenditure in the 2023-26 regulatory period to allow further investment in energy and solar initiatives, funded though efficiency savings.

The balance of this response is structured as follows:

- Chapter 2 provides a brief update of our ongoing customer engagement;
- Chapter 3 addresses the QCA's proposed positions in relation to the return on capital, inflation and taxation;
- Chapter 4 addresses our capital expenditure;
- Chapter 5 addresses our operating expenditure;
- Chapter 6 responds to matters relating to drought – as this largely centres around the recommissioning and operation of the Luggage Point AWTP, we address these together, encompassing the current period drought Review Event claim, our proposed step change in operating expenditure for future Luggage Point costs and the forecast costs underpinning the proposed drought allowance;
- Chapter 7 summarises our updated total revenue requirement;
- Chapter 8 addresses future Review Events; and
- Chapter 9 briefly addresses other matters, being end-of-period adjustments, prudent discounts and concealed leak, all of which were assessed as being out of scope by the QCA.

2 Ongoing customer engagement

In our June 2021 Submission we detailed the extensive work we have been undertaking in transforming our customer, stakeholder and community engagement. This is ongoing.

An engagement framework with our Retailer Customers was formally approved at the November 2021 Water Service Providers Partnership Meeting. Also in 2021, we started an annual Retailer Customer Sentiment survey where we will track Net Promoter Score, Trust and Satisfaction with our Retailer Customers.

We are also looking to develop a more detailed understanding of the level of maturity in our customer-centric capability. We will be conducting a baseline self-assessment in March 2022 using the framework developed by the Water Services Association of Australia. This will deliver the following benefits:

- a shared understating of current state and target end-state customer-centric capability maturity and the 'gaps';
- an ability to align customer-centric direction to Seqwater's Corporate priorities;
- increased opportunity for collaboration, partnering and information sharing between utilities, particularly with our Retailer Customers that are using the same framework (City of Gold Coast, Logan Water, Unitywater and Urban Utilities).

We also held a workshop with our Retailer Customers to discuss our response to the QCA's Draft Report. We also intend to continue to work collaboratively with our Retailer Customers within the context of our capital program (refer Chapter 4).

3 Return on capital, inflation and taxation

3.1 Return on capital

3.1.1 The QCA's Draft Report

The QCA is proposing to reject our return on equity of 7.47% in favour of its estimate of 6.64%. This was after its 'top-down' assessment of our proposed WACC, based on its recent review of its rate of return methodology. The primary driver of this difference is the market risk premium (MRP). Under the terms of the Referral Notice, the return on debt is based on the estimate provided by Queensland Treasury Corporation (QTC), which the QCA has adopted.

The difference between our (indicative) proposed WACC and the QCA's WACC is summarised below.

Table 3.1 WACC: Seqwater proposed and QCA Draft Report

	2022-23	2023-24	2024-25	2025-26
Seqwater proposed: June 2021 Submission	5.70%	5.59%	5.48%	5.40%
QCA Draft Report	5.37%	5.26%	5.15%	5.07%

The WACC was indicative because key market-sensitive parameters are updated prior to the QCA's Final Report.

3.1.2 Seqwater's response

3.1.2.1 Risk-free rate

We have updated the estimate of the risk-free rate to 31 October 2021. This is consistent with the approach applied in our June 2021 Submission, which the QCA is proposing to accept. The updated estimate is 1.72%.

3.1.2.2 Return on equity

We support the QCA's application of a top-down approach to assist in assessing the reasonableness of the bottom-up WACC estimate. As the QCA's review of its rate of return methodology was only finalised in November 2021, we are the first business that has been subject to it. In particular, there was some uncertainty as to how the top-down approach would be applied, so this has provided an opportunity to review its application in practice.

The QCA's draft position has been examined in a report prepared for us by Frontier Economics (Frontier) (refer Attachment 1). While it supports the application of a top-down review of the estimated WACC, it raises concerns that the QCA has not fully considered relevant available evidence. Overall, Frontier is concerned that the QCA's comparatively brief analysis is overly reliant on the Ibbotson estimate and does not duly consider other evidence.

The QCA's rate of return methodology is not specific in terms of the type of evidence it might consider as part of its reasonableness assessment (or how it will be applied). The key concerns that Frontier identifies with the evidence the QCA has considered include:

- It is unclear how the volatility index has been used or what weight it has received.

- There is no apparent reason for considering the difference between the prevailing government bond yield and its historical average.
- The QCA recognises the concerns that have been raised about its unique implementation of the Dividend Growth Model and states that it will only use that approach "to provide directional guidance at the cost of equity level."[1] However, the QCA then refers to its current point estimate (6.7%), without having regard as to whether this is higher or lower than previous estimates and therefore what the implications might be for the return on equity.[2]

Frontier also identifies other evidence that it considers relevant to the assessment that was not examined by the QCA, particularly in relation to the Ibbotson approach. This includes:

- A report from CEPA that was recently commissioned by the Australian Energy Regulator (who has solely relied on this approach), which concludes that there "is no good evidence" to support the view that the MRP should be assumed to be independent of the risk-free rate (which is the foundation of the Ibbotson approach).[3] CEPA explain that the Ibbotson approach imposes an assumption about the MRP rather than being guided by the data, and there is no good evidence to support that assumption.
- Independent expert valuation reports that do not pair the prevailing risk-free rate with an Ibbotson estimate of the MRP.
- A body of evidence that shows that the required return on equity does not vary one-for-one with the risk-free rate, which results from the application of the Ibbotson approach.

This evidence does not necessarily discount the use of the Ibbotson approach however highlights the importance of considering other methods and evidence in informing the MRP.

We consider that Frontier's analysis provides some important insights into the application of a top-down review of the reasonableness of the WACC. In our view, the QCA's top-down assessment does not support the conclusion that our proposed WACC is unreasonable.

Frontier has also provided an updated estimate of the MRP of 7.19%. This applies the same methodology that it used to estimate the MRP for our June 2021 Submission. At that time, Frontier's calculated estimate was 7.75%, however we rounded that down to the nearest half a percent (7.5%), consistent with the QCA's methodology at the time. The QCA appears to have applied a MRP of 6.4% in its Draft Report (and did not refer to rounding the estimate in its Final Report for the rate of return methodology review). We have therefore applied Frontier's estimate in our updated WACC, without rounding.

3.1.2.3 Return on debt

We have also obtained an updated estimate of our cost of debt from QTC in accordance with the terms of the Referral Notice (refer Attachment 2). This updated estimates are provided below.

Table 3.2 Updated QTC cost of debt

	2022-23	2023-24	2024-25	2025-26
Water Infrastructure debt (applies to RAB)	4.65%	4.40%	4.20%	4.05%

[1] Queensland Competition Authority (2021). Seqwater Bulk Water Price Review, Draft Report, November, p. 72.
[2] Queensland Competition Authority (2021). p.76.
[3] CEPA (2021). Relationship Between RFR and MRP, Report for the Australian Energy Regulator, 16 June.

	2022-23	2023-24	2024-25	2025-26
WaterGrid Manager debt (applies to Price Path Debt)	5.15%	5.15%	5.15%	5.15%

3.1.2.4 Gamma

As set out in our June 2021 Submission, and based on the advice of Frontier, we consider that the best estimate of gamma is 0.25. However, consistent with that submission, for the 2023-26 regulatory period we propose to adopt the QCA's preferred value of gamma to mitigate bulk water price impacts. We will therefore apply the value of 0.484 adopted by the QCA in its Draft Report.

We will revisit this in subsequent regulatory periods.

3.1.3 Seqwater's updated proposal

Our updated proposed WACC is shown below. The only parameters that have been updated are the risk-free rate, MRP and the return on debt.

Table 3.3 Updated WACC

	2022-23	2023-24	2024-25	2025-26
Gearing (% debt)	60%	60%	60%	60%
Return on equity	7.24%	7.24%	7.24%	7.24%
Return on debt	4.65%	4.40%	4.20%	4.05%
Post-tax nominal (vanilla) WACC	5.69%	5.54%	5.42%	5.33%

3.2 Inflation

The Referral Notice requires expected inflation to be forecast using inflation swaps. We have obtained an updated forecast of expected inflation from Frontier using the same approach used to calculate our estimate for the June 2021 Submission. This results in the following estimates.

Table 3.4 Updated forecast of expected inflation

2022-23	2023-24	2024-25	2025-26
2.10%	2.22%	2.26%	2.39%

3.3 Taxation

3.3.1 The QCA's Draft Report

There were two key matters to be addressed in determining our tax allowance for the 2023-26 regulatory period.

The first is the definition of income, that is, should it be based on our MAR alone, or our total taxable income, which includes the revenue required to repay the Price Path Debt and associated interest costs. The QCA is proposing to reject our proposal to base this on total taxable income.

In its Draft Report, it stated that if this approach is to be adopted, it would need to be able to offset taxable income in the later years of the price path by tax losses generated in the earlier years. This would require extensive data to estimate tax losses that would have accrued from 2008 to 2013. It is therefore proposing to use forecast costs (i.e. revenue excluding price path debt accruals and repayments) as a proxy for forecast revenue.

The second issue is the application of accumulated tax losses. In our June 2021 Submission, we argued that any tax losses accumulated up to and including 2017-18 should be ignored. However, to mitigate price impacts for the 2023-26 regulatory period we proposed to recognise tax losses since 2013.

The QCA does not agree with our argument. The two main reasons for this are:

- While it was not directed to include a tax allowance until the 2018-21 regulatory period, it does not consider that it would have been precluded from doing this in prior regulatory periods. It stated that the reason it did not recommend such an allowance in the 2015-18 regulatory period was because our rate of return was based on the cost of debt. It argued that under this approach "Seqwater was not expected to pay tax, as tax losses accrued in the early life of assets could be used to reduce tax payable in the future."[4]
- Even if tax losses were driven by the Government's decision that prices be set below efficient costs prior to 2018, it has "not received any advice from the government that Seqwater should keep the benefit of any tax losses generated by those decisions."[5] It considered that this could result in a windfall gain to Seqwater.

3.3.2 Seqwater's response

We engaged Frontier to provide an expert opinion on the QCA's response (refer Attachment 3).

As the QCA has acknowledged, the tax allowance that is set for regulatory purposes reflects the efficient benchmark firm. This means that Seqwater's actual or reported tax losses are irrelevant.[6] What is relevant are any regulatory tax losses arising in the regulatory model.

Frontier's interpretation of the QCA's position is that it does not dispute that all allowed revenues (including revenue recovered to repay the Price Path Debt) will be taxable. Rather:

- during the early years of the Price Path Debt (the first phase), allowed revenues were below the MAR, resulting in tax losses as the Price Path Debt balance increased;
- during the later years (the second phase), allowed revenues will be higher than the MAR, resulting in higher tax payable as the Price Path Debt balance is paid down; and
- there would be a windfall gain to Seqwater if it was provided with an additional allowance for tax payable in the second phase, without having regard to losses created during the first phase.

This gives rise to two possible internally consistent approaches that will also ensure a consistent treatment between the two Price Path Debt phases as described above:

1. The tax effects from both phases are recognised in the Price Path Debt mechanism so that:
   - tax losses are recorded for the first phase of under-recovery;
   - tax payable is calculated for the second phase, when the Price Path Debt is being paid down;

[4] Queensland Competition Authority (2021). p.79.
[5] Queensland Competition Authority (2021). p.79.
[6] Queensland Competition Authority (2021). p.79.

- the tax losses from the first phase are applied to offset the tax payable in the second phase; OR

2. The tax effects are omitted from both phases, based on an assumption that tax payable under the second phase would be offset by the equivalent amount of tax losses in the first phase (which appears to have been the approach adopted by the QCA).

Frontier highlights that this second approach appears to be inconsistent with the QCA's regulatory model, which looks to have embedded the double-counting of regulatory tax losses from 2014 to 2022. This is because the QCA's proposed accumulated tax losses for the 2023-26 regulatory period (of $363.4 million) are applied twice, being:

- as part of the total tax loss that is used as the basis for excluding Price Path Debt revenues from the calculation of corporate tax; and
- as a deduction to the MAR allowance.

These tax losses can only be utilised once. If the second approach is to be adopted, it is therefore necessary to ensure that there is no double counting.

3.3.3 Seqwater's updated proposal

Supported by the expert opinion provided by Frontier, we remain of the view that our corporate tax allowance should be calculated based on total taxable income, including the revenue required to repay the Price Path Debt.

In terms of the treatment of tax losses, we are proposing to retain our original position as contained in our June 21 Submission (which was also intended to mitigate bulk water price impacts). If the QCA is to continue to adopt the approach reflected in its Draft Report, we request that the double counting of regulatory tax losses is addressed, as set out in the Frontier report.

We will revisit this position in subsequent regulatory periods.

Our updated proposed tax allowance is shown below.

Table 3.5 Updated tax allowance ($million, nominal)

2022-23	2023-24	2024-25	2025-26
-	55	83	104

4 Capital expenditure

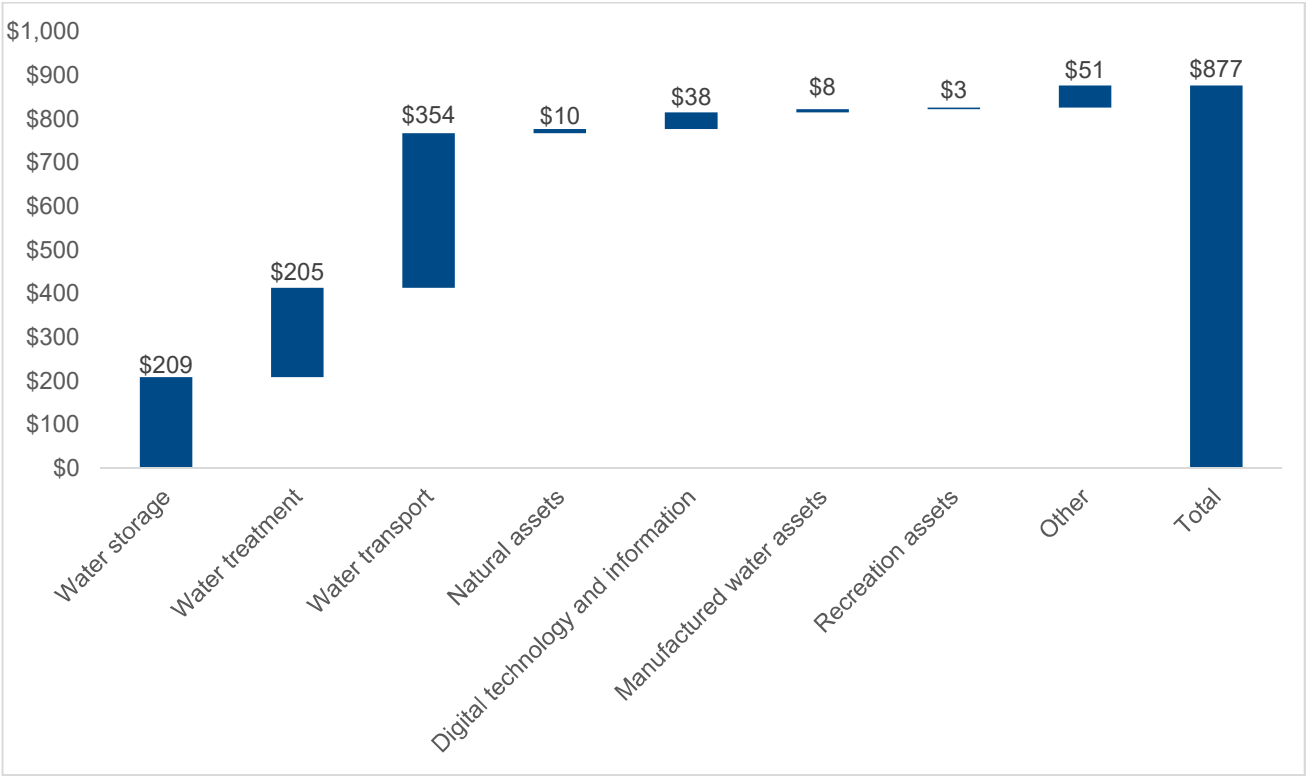
4.1 Overview

In our June 2021 Submission, we proposed to invest $877 million in maintaining and upgrading existing assets and investing in new assets to service our customers or manage risks. The largest drivers of our capital expenditure are meeting our legal and regulatory obligations and renewing our infrastructure to ensure it continues to meet our customers' needs.

During 2023-26 we proposed to:

- upgrade dams to meet dam safety guidelines;
- improve water quality for SEQ through the upgrade of two water treatment plants;
- improve the flood resilience of our networks, to protect our customers from water supply outages during flood events;
- increase water security and quality for the Beaudesert Water Supply Zone by delivering a pipeline that connects the standalone system to the SEQ Water Grid;
- maintain the Gold Coast Desalination Plant and other manufactured water assets to secure the water supply in SEQ, including during drought events;
- upgrade a proportion of disparate and obsolete field technology, increasing the reliability of our water networks; and
- continue providing recreational access to our land for the enjoyment of our customers, and their customers.

Figure 4.1 2023-26 capital forecast by strategic asset group ($m nominal, as capitalised)



We also committed to continue to improve our asset planning and capital delivery processes and put our customers at the heart of everything we do.

The QCA recognised the improvements to asset planning and capital delivery we have made in the current regulatory period, including:

- improvements to our capital planning process, including a new risk-based prioritisation framework;
- improvements to our capital governance processes including monthly monitoring and oversight;
- project bundling;
- increased customer engagement;
- enhanced cost estimating;
- implementation of KPMG's recommendations from the 2018-21 bulk water price investigation;
- an update of the Strategic Asset Management Plan (SAMP) and our asset management objectives;
- the development of an integrated asset management system that aligns with ISO 550001;
- the identification and establishment of asset management documents, along with the development of new Integrated Asset Management Plans;
- defining our assets, which includes (but is not limited to) identifying critical asset information requirements;
- realignment of our organisation to better align our Major Projects delivery to regulatory requirements and enhance our planning, as well as integrating our Planning and Delivery groups with the Operations Group resulting in significant improvements to the way capital projects are planned and delivered; and
- increased capital scrutiny including independent reviews of proposed capital projects and programs for prudence and efficiency.

In recognition of those improvements, the QCA is proposing to allow all of the expenditure proposed by us in our 2023-26 forecast that will allow us to carry out the key capital deliverables mentioned above. The QCA has also recommended we actively seek investment opportunities in energy and solar that will generate cost savings for our customers within and beyond the regulatory period and an efficiency challenge we need to meet. These are discussed in sections 4.2 and 4.3.

It is noted that a recent decision on the allocation of capital and operational expenditure in relation to Software as a Service will alter our future capital profile. This is discussed in section 5.3.5.

4.2 Increasing energy, solar and other opportunities for our customers

We will be actively assessing energy and solar opportunities for inclusion in our 2023-26 capital plan where it makes sense to do so and will bring down operating costs for our customers.

In addition to exploring these opportunities, we will action feedback from both the QCA and Atkins that we should be targeting "spend to save" projects where the cost benefits are short term and will provide cost savings for our customers. We are currently preparing the Asset Portfolio Master Plan (APMP) 2022 and as such are implementing a process in our asset and digital capital planning processes that ensures these opportunities are identified and explored. We will also ensure there is an adequate budget allocation for innovation and cost saving projects during regulatory periods to allow this to occur.

4.3 The efficiency challenge

In its review, the QCA observed that we need to embed robust efficiency challenges in our business, and that various improvements we are currently making will help us meet them.

The QCA's recommendation to increase our investment in energy and solar solutions that will generate cost savings for our customers increased our capital allowance by around $21 million. The QCA recommended our original capital allowance be maintained and this additional $21 million in expenditure be met through efficiencies. We acknowledge we have many process improvements in place and in train already, with additional areas of focus to explore further efficiencies.

4.4 Opportunity to review the regulatory framework to deliver further efficiencies for customers

We intend to work collaboratively with our Retailer Customers on their infrastructure needs, identifying efficiencies and innovative strategies to defer expenditure or invest in the most efficient way.

In its Draft Report the QCA noted that in future, it may be appropriate to reconsider the role of capital expenditure assessments to better align accountability with opportunity and incentive to be innovative and responsive. It also noted that the current state of the regulatory framework, and our responsiveness to it, may give rise to more appropriate means of regulating expenditure in the future, with less of a role for "extensive and interrogative reviews"[7].

The QCA noted it would consider opportunities to improve the capital assessment processes through:

- the role of ex post capital reviews
- a capital efficiency sharing mechanisms
- reporting and monitoring frameworks
- customer engagement and broad stakeholder endorsement of the capital program.

We would welcome the opportunity to work collaboratively with the QCA to discuss opportunities to strengthen the regulatory framework, developing new approaches where appropriate to achieve the same outcomes for our customers, which is prudent and efficient capital investment, every day.

[7] Queensland Competition Authority (2021). p.62.

5 Operating expenditure

5.1 Overview

We welcome the QCA's endorsement of a large part of our operating expenditure forecast for the 2023-26 regulatory period. The focus of this chapter is on the key aspects of our operating expenditure forecast that the QCA is proposing to either not accept or apply a lower allowance than our original proposal.

In a number of areas we are proposing to accept the QCA's draft position, even though we still intend to incur the expenditure in the 2023-26 regulatory period (some of which will be funded through targeted efficiency savings). An example of this are the costs associated with the beneficial re-use of residuals, where the QCA is not proposing to accept our step change in variable operating expenditure. In the meantime, while we have made significant advancements in improving our management reporting capability, we will continue to progress improvements to our information collection and reporting with a view to being able to better substantiate our case in the next price investigation. In other areas, we have sought to provide further information and evidence to support our proposal. This is set out below.

5.2 Fixed operating expenditure: base year

5.2.1 The QCA's Draft Report

The QCA is proposing to adopt our selected base year of 2019-20. It is also proposing to accept our proposed net reduction to our base year expenditure of $27.5 million for adjustments to fixed operating expenditure.

The QCA considers that we have not provided sufficient justification for $10.5 million of proposed base year expenditure compared to the approved 2019-20 allowance. This had reflected an increase in our costs based on a number of drivers (as set out in Chapter 6 of our June 2021 Submission), after having outperformed relative to the approved allowances from 2015-16 to 2018-19.

The QCA is therefore proposing to apply a base year fixed operating expenditure allowance of $215.4 million, which is consistent with its 2019-20 approved allowance. It is then proposing to add adjustments for an increase in our insurance premiums ($1 million) and overhead costs associated with our new Major Projects group ($2.2 million), resulting in a total base year fixed operating expenditure allowance of $218.9 million.

5.2.2 Seqwater's response

5.2.2.1 Adjustments to base year expenditure – maintenance costs

The QCA's Draft Report

In proposing to adopt its previously approved 2019-20 expenditure for the fixed base year, the QCA will also be excluding an adjustment we sought for an increase in our maintenance expenditure (totalling $5 million). The main reasons for this are that:

- It considers that we should be able to meet these costs within our business-as-usual budget, through the "prudent prioritisation" of expenditure[8]. It also questioned whether the activities undertaken in the 2019-20 year should have been completed in prior years, where we underspent relative to our approved allowance.
- There is no evidence of external factors or measures showing any deterioration in asset performance.

[8] Queensland Competition Authority (2021). p.24.

Seqwater's response

In response to the QCA's feedback, we have undertaken a program of work to review the prudency and efficiency of our proposed maintenance expenditure. The outcomes of this are summarised in a Technical Note (refer Attachment 4). We also commissioned a report from Covaris, involving a more detailed assessment of our maintenance history to demonstrate the correlation between asset degradation and age. The Covaris report is commercial in confidence and will be provided separately to the QCA.

This review confirms the prudency and efficiency of our proposed expenditure, having regard to the concerns expressed by the QCA. It is also evident that part of the $5 million adjustment proposed to our 2019-20 base year in our June 21 Submission is more appropriately categorised as a step change, based on the QCA's definition[9].

We have therefore reduced our base year adjustment and proposed an additional step-change for forecast future increases (refer section 5.3.6). To be clear, the total increase in expenditure we are now proposing across the base year adjustment and step change does not exceed the total base year adjustment sought in our June 21 Submission.

As explained in our Technical Note, our proposed base year adjustment reflects two key drivers of increased expenditure:

- **Deteriorating asset condition**: in response to the QCA's feedback in its Draft Report, we undertook a more detailed assessment of our asset condition using our Computerised Maintenance Management System, with the assistance of Covaris. This confirms the increasing degradation of our asset base in recent years, as also evidence by a correlation between growth in corrective and breakdown maintenance and asset condition.
- **Asset growth**: in undertaking investments to augment or replace assets that have reached end of life, we ensure that these assets will continue to meet changing demand. This may require the installation of assets of a different size and configuration, which can lead to increased maintenance requirements. Further, the standards and regulatory requirements applying to modern equivalent assets (such as electricity safety) can impact the feasibility of a 'like for like' replacement, as well as increase maintenance costs.

Where possible, in planning our maintenance program and investing in asset replacement, we look for opportunities for efficiencies that can reduce costs.

Seqwater updated proposal

We consider that the supporting evidence supports the prudency and efficiency of our proposed $1.1 million adjustment ($2019-20) to our fixed base year operating expenditure. Our Technical Note itemises all of the initiatives that have driven this increase over the current regulatory period. This also shows that the increase in 2019-20 base year expenditure does not reflect a deferral of activities from prior years.

Our proposed maintenance cost step change for the 2023-26 regulatory period is discussed in section 5.3.6.

5.2.2.2 Adjustments to base year expenditure – fixed/variable cost split

The QCA's Draft Report

The QCA is proposing to use its approved 2019-20 allowance as our fixed operating expenditure base year for the 2023-26 regulatory period. This allowance included the application of our efficiency target. In its Final Report for the 2018-21 regulatory period, the QCA applied a continuing efficiency target of 0.2% (cumulative) to the controllable portion of our fixed operating expenditure

[9] Queensland Competition Authority (2021). p.19.

Seqwater's response

We applied the base-step-trend to develop our opex forecasts for the first time in developing our submission for the 2018-21 regulatory period, aligning with the more common approach applied in Australian regulatory practice. As part of our methodology we separate fixed and variable costs. While we understand that many other regulated businesses apply the base-step-trend approach at a whole-of-operating expenditure level and do not separate out variable costs in this way, we did this in the interests of transparency. We also account for production growth via our variable cost component.

Embedded in the QCA's approved fixed operating expenditure allowance for each year of the 2018-21 regulatory period, including the 2019-20 year, are assumptions regarding the split between fixed and variable costs. This has led to two additional areas of complexity in using that approved allowance as our base year for the 2023-26 regulatory period, being:

- changes in the categorisation of costs between fixed and variable
- the application of efficiency targets and savings.

Changes in the categorisation of costs between fixed and variable

In our operating expenditure allowance approved by the QCA for the 2018-21 regulatory period, our manufactured water costs were categorised as variable costs.

In measuring and monitoring the financial performance of our manufactured water assets in practice, it has become evident that the characteristics of these costs are more in the nature of fixed costs. At low production volumes (in normal operating conditions), there is less variation in these costs. At higher production volumes (including in drought operating conditions) these costs are more likely to vary, although do not necessarily move one-for-one for changes in volume. This reflects the stop-start operations of the assets and the economies of scale at different production volume modes. One of the key costs is maintenance. While these costs are fixed in nature, maintenance of these assets will be scheduled based on usage or production volumes and will take on some of the characteristics of a variable cost.

The implications of the treatment of these costs as variable in the current regulatory period means that they will not be reflected in the QCA's approved 2019-20 fixed operating expenditure base year. To ensure that our operating expenditure forecast for the 2023-26 regulatory period reflects the correct categorisation of these costs, the allowance for manufactured water costs should be removed from our variable cost base and added to the 2019-20 fixed base year operating expenditure. This has no impact on our total approved operating expenditure allowance and hence has no impact on bulk water prices.

The application of efficiency targets and savings

In our submission for the 2018-21 bulk water price investigation, we applied a proposed 0.2% per annum (cumulative) efficiency target to controllable operating expenditure, consistent with standard regulatory practice.[10] In addition to this, we included a further $3.6 million in internal efficiency targets as part of our corporate budget. This budget was used to set our proposed operating expenditure allowance for the 2018-21 regulatory period, where we applied these targeted savings to our forecast fixed costs. In its Final Report for the 2018-21 regulatory period, the QCA accepted our proposed base year fixed operating expenditure subject to a small adjustment for non-recurrent expenditure.

In practice, we manage our business to the total approved operating expenditure allowance. This also means that savings made in one area may be applied to fund additional costs emerging in other areas - both within and

[10] We applied this to our fixed and variable cost categories. For fixed costs the target was applied to the proportion of those costs that are controllable (around 65%), while for variable costs that same target was applied to controllable cost components, such as sludge disposal. The QCA accepted the application of our efficiency target.

between fixed and variable cost categories. For internal monitoring and reporting purposes, we do not identify and allocate efficiency targets and savings between fixed and variable operating expenditure. In doing this, we also remain accountable for achieving any targets set for the relevant regulatory period.

What we did not anticipate at the time was that any assumptions regarding the allocation of these targets between fixed and variable cost categories would have implications for any ex post review of our actual expenditure against the QCA's approved allowance, including for the purpose of assessing our base year expenditure in the next regulatory period. We now recognise that we should have considered this at the time.

Over the course of the 2018-21 regulatory period, we realised savings in a number of areas in response to our efficiency targets. These savings were across our fixed and variable cost categories. For example, in the current regulatory period, we achieved $5.7 million in savings associated with energy costs. These savings that we realised were actually to our variable costs, rather than our fixed costs.[11] This has two implications:

- any comparisons of our actual fixed operating expenditure relative to the QCA's approved fixed operating expenditure allowance could lead to the conclusion that we did not achieve these savings, or had 'overspent' by that amount; and
- if our fixed operating expenditure base year for the 2022-26 regulatory period is set with reference to the QCA's approved 2019-20 base year that has embedded these efficiency savings, it will understate our prudent and efficient operating expenditure because those efficiencies were achieved in our variable costs, not our fixed costs.

It is standard regulatory practice to set 'holistic' efficiency targets that are applied to total controllable costs. It should not be contentious as to whether those targets are realised in fixed or variable costs – the key issue is that the regulated business is accountable to at least meet (but ideally exceed) those targets. The classification of those savings as fixed or variable costs has no implications for the realisation of those savings or how they will ultimately flow through to prices. It is also important to avoid the situation where we have to 'lock in' the categorisation of those savings (as fixed or variable) at the start of each regulatory period, which could distort our incentives to pursue particular initiatives.

The implications of the above are twofold. First, for the purpose of setting our base year for fixed operating expenditure, the portion of forecast savings that were deducted from our fixed costs in the 2019-20 year, but in fact were realised in our variable costs (as reflected in our lower proposed allowance), should be added back in to the QCA's approved 2019-20 fixed base year allowance.

Second, going forward, having learnt from our experience over the 2018-21 regulatory period, we consider that efficiencies should be assessed at the level of total operating expenditure. While any savings that are achieved will eventually flow through to either fixed or variable operating expenditure, the impact on prices will be the same. However, we will not be in a position to have complete certainty at the start of each regulatory period as to where those future savings will occur. We consider it reasonable for us to have commercial discretion and flexibility in this regard (as is the case with other regulated businesses), recognising that we will remain accountable in demonstrating the efficiencies that we have realised at the end of each regulatory period.

As outlined in section 5.6, in response to the QCA's Draft Report we propose to target and achieve efficiencies for the 2023-26 regulatory period through our efficiency program. We agree that this is a better approach than

[11] We also note that the QCA's consultant, Atkins, considered this a 'windfall gain' due to the renegotiation of tariffs by the Queensland Government rather than management actions by Seqwater. We do not consider this to be an accurate or fair assessment. In 2017, we were pursuing a number of options for electricity contracting arrangements with a view to reducing costs. The electricity market was maturing and it was recognised that longer term contracts with wholesalers would provide material savings. Within the market at the time, we had viable long term options outside of the State Government contracts. At the time of the 2018-12 bulk water price investigation, we were not able to precisely estimate the likely savings, even though they were recognised as potentially material. The internal efficiency targets were established in the context of the business environment at the time.

the application of a specific target. In implementing this program and identifying and planning potential initiatives, we will not have complete certainty ex ante as to whether the savings we achieve will be in the nature of fixed costs, variable costs or a combination of both. This extends to the energy efficiency initiatives that the QCA has endorsed as part of our capital expenditure program (refer Chapter 4).

5.2.2.3 Seqwater's updated proposal

Changes in the categorisation of costs between fixed and variable

We propose that $2.5 million in manufactured water costs are removed from our variable operating expenditure base year and added to the fixed base year.

The application of efficiency targets and savings

The two issues that need to be addressed are as follows.

The first is the implications of our forecast efficiency savings applied to our fixed operating expenditure for the 2018-21 regulatory period and its reflection in the QCA's approved 2019-20 base year that it is now proposing to apply for the 2023-26 regulatory period. We acknowledge that this issue emanated from the way we proposed to apply efficiency targets to our fixed and variable costs as part of our 2018-21 regulatory proposal. At the time, we did not envisage how this could impact the QCA's assessment of our fixed operating expenditure base year in the 2023-26 regulatory period. Our concern is to ensure that we are not unduly 'penalised' for this oversight, particularly given that we did achieve real efficiency savings in the current regulatory period.

To ensure that we remain whole, we propose that $2 million in efficiency savings that we have demonstrated and realised as variable rather than fixed operating expenditure (and hence are already reflected in our lower variable cost allowance) need to be added back in to the QCA's proposed 2019-20 base year (see Table 5.1).

The second issue relates to the setting of targets for the next period (refer section 5.6). To the extent that the QCA is satisfied with the credibility of our proposed efficiency program instead of applying a specific target to our forecast operating expenditure allowance, this problem should not arise. At the end of the next regulatory period, any ex post assessment of our actual expenditure relative to the approved allowance should consider efficiencies at the total operating expenditure level.

However, if the QCA is not satisfied with the credibility of our proposed efficiency program and recommends the application of a specific efficiency target, we request that this is applied to total controllable operating expenditure (rather than presuming an allocation between fixed and variable costs). An ex post assessment of our operating expenditure performance during the regulatory period will also need to take this into account.

Summary of adjustments between fixed and variable base years

The following table summarises the adjustments explained above, as applied to the fixed and variable base years the QCA approved in its 2018-21 Final Report. The variable cost base year we have proposed for the 2023-26 regulatory period ($33.3 million), which reflects our actual costs (and hence realised efficiency savings) is slightly below the adjusted base year shown below. The QCA is proposing to accept this.

Table 5.1 Adjustments to fixed and variable 2019-20 base years as approved by the QCA ($ million, 2019-20)

QCA Approved Allowance	QCA	With correct categorisation
Fixed base year	215.4	215.4
Add back: re-categorised manufactured water costs	-	2.5

QCA Approved Allowance	QCA	With correct categorisation
Add back: efficiencies realised in variable opex	-	2.0
Total: fixed base year	**215.4**	**220.0**
Variable base year	38.3	38.3
Remove: re-categorised manufactured water costs	-	(2.5)
Remove: efficiencies realised in variable opex (and already reflected in the QCA's variable opex allowance)	-	(2.0)
Total: variable base year		**33.7**
Total: fixed + variable	**253.7**	**253.7**

5.2.3 Proposed base year: fixed operating expenditure

The following table summarises our proposed adjustments to our base year expenditure, starting from the QCA's recommended 2019-20 fixed base year. In addition to the adjustments shown above, this includes the adjustments for insurance and Major Projects costs that the QCA is proposing to accept, along with $1.1 million for increased maintenance expenditure, as explained in section 5.2.2.1.

Table 5.2 Adjustments to fixed base year ($ million, 2019-20)

QCA fixed base year	215.4
Plus: re-categorised manufactured water costs	2.5
Plus: efficiencies reflected in variable opex allowance	2.0
Plus: insurance costs adjustment	1.0
Plus: Major Projects costs adjustment	2.2
Plus: maintenance costs adjustment	1.1
Total: fixed base year	**224.3**

5.3 Fixed operating expenditure: step changes

This section addresses the key step changes that the QCA has proposed to reject or modify for the 2023-26 regulatory period.

5.3.1 Luggage Point Advanced Water Treatment Plant Operation

This is one of the most significant issues for this review. As this also has implications for our drought Review Event claim for the current regulatory period, as well as our forecast drought allowance costs, we have addressed this separately in Chapter 6.

In response to the QCA's concerns, we have provided more information to demonstrate the prudency and efficiency of our proposed step change to recover additional operating expenditure associated with our decision to maintain the Luggage Point Advanced Water Treatment Plant (AWTP) in a low flow state of operation in normal operating conditions. We consider that this supports the full amount of the proposed step change as set out in our June 2021 Submission. We have also identified some additional costs during our review of the options for operating mode.

As set out in section 6.3.2, our updated proposed step change in operating expenditure associated with the Luggage Point AWTP is $8.5 million per annum (2019-20).

5.3.2 Natural assets

5.3.2.1 The QCA's Draft Report

The QCA's draft position is to accept our proposed reclassification of natural assets expenditure from capital expenditure to operating expenditure from 2022-23. While it accepts the expenditure to be prudent, it does not consider the full amount of our proposed expenditure to be efficient. Based on the advice of its consultant, Atkins, it is proposing an efficient level of expenditure of $50 million between 2022-23 and 2027-28, compared to our submission of $65.6 million ($2019-20).

It states that we have not provided sufficient justification as to why our forecast natural assets expenditure (as operating expenditure) is higher than our previous capital expenditure. Its allowance is based on an average level of expenditure incurred between 2017-18 and 2020-21, which is estimated as $5.9 million per annum in real terms. It is proposing to accept our environmental offsets estimate.

Excluding environmental offsets, the shortfall between our forecast natural assets expenditure and the QCA's proposed allowance is as follows.

Table 5.3 Natural assets expenditure – Seqwater forecast -v- QCA proposed ($million, 2019-20)

	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Seqwater forecast	6.7	7.9	8.4	8.6	8.6	8.6	**48.8**
QCA proposed	5.9	5.9	5.9	5.9	5.9	5.9	**35.4**
Shortfall	0.8	2.0	2.5	2.7	2.7	2.7	**13.4**

5.3.2.2 Seqwater's response

The framework underpinning our forecast natural assets expenditure

Drinking water services are regulated in Queensland under the *Water Supply (Safety and Reliability) Act 2008* (the Act). The drinking water provisions in the Act are primarily aimed at the protection of public health through the delivery of safe drinking water. To achieve this, registered drinking water service providers must have an approved Drinking Water Quality Management Plan (DWQMP) that demonstrates how they manage the safety of drinking water supplied to their customers.

In line with the Australian Drinking Water Guidelines Framework for the Management of Quality of Drinking Water (ADWG Framework), we recognise that the protection of source water is fundamental to ensuring the safety of drinking water at point of supply. Given that the source water catchments we rely on for supply are vast and support a wide variety of land uses, we maintain a source protection program where catchment-derived risks to drinking water safety are actively identified and prioritised for investment to mitigate the high risks.

Water quality risk analysis is achieved via multiple lines of evidence. Measured water quality data, hydrological and landscape data as well as a formalised risk assessment processes are incorporated into our Catchment

Investment Decision Support System (CIDSS). The CIDSS combines these spatial and non-spatial data to assess where contaminants that pose a risk to human health arise, their mobilisation, transport and the concentration received at any particular Water Treatment Plant (WTP). An optimisation function of intervention activities across a selected source catchment is then run within the CIDSS, whereby the greatest reduction in risk to water quality received at any specific WTP can be determined for a given budget. This process is industry leading and has been documented and published in a peer reviewed journal.[12]

Outputs from the CIDSS, as well as other relevant information, is then used to develop the Regional Source Water Risk Reduction Plan and Wastewater Management Portfolio Plan. These two plans formalise a robust and standardised approach to asset planning that aligns with similar processes across Seqwater. These plans provide a key reference point for long-term investment programs for source water (catchment) protection, which enables:

- a consistent approach in justifying investment;
- the inclusion of relevant and available knowledge, and empirical data, to ensure an investment program is effectively targeted;
- the inclusion of a standard quantitative method by which to assess and prioritise investment within and between catchments to ensure efficient allocation of resources; and,
- the development of a program of works that allows priority sites to be identified and targeted, and enables mitigations (on-site works) to be matched to site-specific hazardous processes. Accordingly, this work supports efficiency in reducing water quality risks and impacts to assets by targeting priority sites.

The Regional Source Water Risk Reduction Plan and Wastewater Management Portfolio Plan describe the water quality risk profile of each source water catchment, highlight where catchment-derived risks may be at or above the treatment capability of WTP, and provide an overarching program of works budget to mitigate priority risks across a ten-year planning horizon.

Delivery of water quality risk mitigation activities are undertaken in partnership with a variety of external stakeholders, including local catchment and land care groups, local governments and regional bodies such as Healthy Land and Water. Our forecast expenditure also reflects commitments made to our stakeholders in relation to our funding of source protection initiatives.[13] Importantly, many of these initiatives are co-funded by, or attract in-kind support from, our partners.

The profile of our forecast natural assets expenditure

Atkins stated that we have not demonstrated the timing of our proposed interventions.[14]

As reflected in the profile of our proposed expenditure for 2022-23 to 2027-28, our source protection investment program has been intentionally developed to build over time as activities are rolled out across all Seqwater source water catchments. The increase in natural asset expenditure year on year as per the Regional Source Water Risk Reduction Plan reflects the source protection investment program that is progressing in all source water catchments. This includes escalating investment in catchments that play a critical role in drinking water supply, such as the Brisbane and Logan Rivers.

A key reason why our proposed expenditure for the next regulatory period is higher than historical expenditure is because we had not been operating source protection programs in all catchments. We have also been building the capacity of the partnership group to take on more complex and significant projects. Having built the

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[12] Refer: Stewart, M.; Marsh, N.; Phung, V.; Lynn, T. (2021). A Planning Tool for Optimizing Investment to Reduce Drinking Water Risk to Multiple Water Treatment Plants in Open Catchments. Water 2021, 13, 531. https://doi.org/10.3390/w13040531

[13] This includes commitments made by Seqwater's CEO to the Council of Mayors Strategic Planning Workshop in February 2021.

[14] Atkins (2021). p.79.

capacity of these partnership groups and demonstrated their success of delivering source projection projects, we are now in a position to expand the program to mitigate the high priority projects identified through the CIDSS risk modelling tool.

Our forecast shows a gradual ramp-up in expenditure in the first three years of the next regulatory period as activities are rolled-out to address the high priority catchment-derived risks to drinking water safety, before stabilising to a more constant annual level of expenditure (which we forecast to be $8.6 million per annum in real terms from 2025-26).

In terms of our forecast activities underpinning our proposed expenditure, Atkins states that "the greater part of proposed expenditure is planned for agricultural practice improvements and weed control with source pollution and wastewater treatment forming small elements of expenditure".[15] This statement implies a narrower scope to our source protection activities than is actually the case.

To clarify, all proposed natural asset expenditure, excluding environmental offsets, is to address source pollution and/or water treatment.

The **Agricultural Practice Improvement expenditure** is to address source pollution risk, particularly pathogen risk, arising from agricultural production within the drinking water catchments. Agricultural production, and specifically livestock grazing, is by far the largest land use by area across our source water catchments. The issues agriculture production presents to managing water quality are summarised below.

[15] Atkins (2021). pp.78-79.

Box 5.1 The implications of agricultural production for source protection

Manure from livestock is a common source of pathogens causing waterborne outbreaks in developed countries[a] and has been the root cause in the well-known public health emergencies in Milwaukee, (USA), Walkerton (Canada) and Havelock North (New Zealand) in 1993, 2000 and 2016 respectively.

Research shows livestock manure from animals in Seqwater source water catchments contain *Cryptosporidium parvum*, a protozoan parasite that is hardy, spread easily by water, resistant to chlorination and difficult to remove from water intended for consumption as drinking water[b].

Rangeland livestock grazing on native pasture is the dominant land use across Seqwater source water catchments. Typically, under this production system, livestock have direct access to waterways, which results in direct input of manure into source waters. Further, while it represents a much smaller percentage of land use by area, intensive animal production produces large and concentrated waste streams of livestock manure.

The majority of these intensive livestock production systems have no or sub-optimal effluent management, or may stockpile animal waste. Where these intensive livestock production systems are in close proximity to waterways and effluent management is inadequate, potentially human infectious microbial pathogens such as *Cryptosporidium parvum* are released to source waters. Evidence for the delivery of potentially human infectious microbial pathogens from livestock waste comes from both the literature[c, d, e], and from Seqwater's catchment water quality monitoring program[6].

Given the temporal scale of livestock production in Seqwater source water catchments, and the level of risk posed to drinking water safety by pathogens found in livestock manure and the effluent produced in intensive livestock production, investment in mitigations to manage and reduce the input of manures into source waters is a priority for the source protection team.

Implementation of mitigations to address livestock-derived pathogens falls under the 'agricultural practice improvement' category. This involves working in collaboration with primary producers to exclude livestock from waterways via fencing, establish and maintain formal waterway crossings, improve pasture condition to minimise mobilisation of manure in rainfall/runoff events, and install effluent management systems in the case of intensive livestock production (e.g. dairying). The mitigation actions that are implemented have been shown to reduce the concentration of pathogenic microorganisms in waterways.[f,g]

a Refer: Hrudey, S.E. & E.J. Hrudey (2004) Chapter 4.4. 9. Drumheller. pp. 161-164. In: Safe Drinking Water – Lessons from Recent Outbreaks in Affluent Nations. IWA Publishing, London; Hrudey, S.E. (2017). Converting Hindsight into Foresight. Evidence Prepared for Water New Zealand for submission to Government Inquiry into Havelock North Drinking-Water.

b Refer: Zahedi, A., Monis, P., Gofton, A.W., Oskam, C.L., Ball, A., Bath, A., Bartkow, M., Robertson, I., Ryan, U. (2018). Cryptosporidium species and subtypes in animals inhabiting drinking water catchments in three states across Australia. Water Research, doi: 10.1016/j.watres.2018.02.005.

c Refer: Monaghan, R.M., Wilcock, R.J., Smith, L.C., Tikkisetty, B., Thorrold, B.S., Costall, D., 2007. Linkages between land management activities and water quality in an intensively farmed catchment in southern New Zealand. Agriculture, Ecosystems & Environment 118, 211-222.

d Refer: Wilcock, R.J., Monaghan, R.M., Thorrold, B.S., Meredith, A.S., Quinn, J.M., Betteridge, K., Duncan, M.J., 2007. Land-water interactions in five contrasting dairying catchments: issues and solutions. Land Use and Water resources Research 7, 2.1-2.10.

e Refer: Stott, R., Davies-Colley, R.J., Nagels, J.W., Donnison, A., Ross, C. & Muirhead, R. (2011) Differential behaviour of Escherichia coli and Campylobacter spp. in a stream draining dairy pasture. Journal of Water and Health, 9, 59-69.

f Data available on request

g For example, refer: Smolders, A., Rolls, R.J., Ryder, D., Watkinson, A., Mackenzie, M. (2015). Cattle derived microbial input to source water catchments: An experimental assessment of stream crossing modification. Journal of Environmental Management 156, 143e149.

The **weed control expenditure** is to address source pollution risk, particularly sediment and pathogen risk, resulting from riparian vine weed infestations within the drinking water catchments. The issues these weeds present to managing water quality are summarised below.

Box 5.2 The implications of riparian vine weeds for source protection

Weed Control projects target riparian vine weeds which are known as "transformer weeds". Transformer weeds, such as Cats Claw Creeper and Madeira Vine, are able to infest native riparian vegetation and ultimately smother and kill the original vegetation. In turn the loss of native vegetation destabilises riverbanks making them highly susceptible to erosion, and increases the likelihood of pollutants entering waterways via overland flow in rain events.

Expenditure on riparian vine weed control is a preventative measure to maintain the riparian vegetation buffer and structural integrity of the riverbed and banks and thus reduce the risk of sedimentation and pathogens delivered to the Water Treatment Plant.

While initiatives are planned in all catchment areas, some of the more significant works we will be undertaking over the 2023-26 regulatory period include the following.

Table 5.4 Key source protection activities

Catchment	Partnership Group	Outcomes/benefits	Forecast operating expenditure 2022-23 – 2025-26 ($million, 2019-20)
Baroon Pocket	Lake Baroon Catchment Care Group	Working toward management of the major sediment source – landslides - across the Baroon catchment. It will also address pathogen management of dairies in the catchment and the impact of an increase in grazing and stock access to waterways.	3.9
Logan River	Healthy Land and Water	A new initiative is being introduced to manage erosion and pathogen pollution. This is critical investment given the region's increasing population, placing more demands on water supplies from an increasingly degraded catchment.	2.7
Mary Valley	Mary River Catchment Coordinating Committee	This project focuses on pathogen and erosion management from a key water source located in a catchment that is an extremely important agricultural area.	3.256
Mid-Brisbane River	To be determined (most likely a Healthy Land and Water initiative)	From 2023-24, the existing programs targeting riparian weed management and the extension of source protection for farming areas will be combined. Total expenditure will also be increased to	3.9

Catchment	Partnership Group	Outcomes/benefits	Forecast operating expenditure 2022-23 – 2025-26 ($million, 2019-20)
		improve the management of source water hazards in this critical catchment, which is the key source of water for SEQ.	
Nerang River	Watergum catchment group	This new long-term initiative will increase necessary investment in this catchment area, for the purpose of improving the management of pathogen and sediment sources.	1.848
Pine Valley	Pine Rivers Catchment Association	The step change in expenditure is to manage the increasing impact of erosion in this catchment, which hasn't been adequately addressed since the major impacts of the 2011 and 2013 floods. Source protection is building a program of works requiring increased investment to manage the impacts of increased erosion which will impact water quality, cost of treatment, in-filling of North Pine dam and supply at the Dayboro Water Treatment Plant.	2.964

The benefits of our natural assets expenditure

Atkins have made a number of statements in relation to our ability to demonstrate the benefits of historic and future natural assets expenditure. It states that "there are no specific measures in place to demonstrate the effectiveness of historic investment or target measures for future projects".[16] To clarify, under our Source Water Protection Program on-ground data is collected following the implementation of mitigations, with this data entered into the CIDSS to illustrate a 'before and after' project risk score, or a modelled reduction in contaminants reaching WTPs. The source protection team is actively working to improve the monitoring, evaluation and reporting outputs from CIDSS.

We are also directly observing evidence of the benefits of specific initiatives in our catchments in practice. For example, in early January 2022 the Mary River catchment was subject to a significant flood event. In past flood events, the Kenilworth WTP Well infrastructure in the Mary River has suffered from significant sediment deposition and erosion. This has required us to use excavators to dig the top of the well out. Following the most recent flood there has been no sediment deposition and no erosion around the well infrastructure.

This can be directly attributed to the source protection program we undertook in the area. It included bed and bank work (revegetation and pile fields etc), which was specifically targeted to protect the well infrastructure against it eroding itself and the deposition on top. The project in that reach of the river was undertaken under

[16] Atkins (2021). Review of expenditures and demand for the investigation of Seqwater's bulk water prices for 2022-26, Draft Report, 25 November, p.78.

our Partnership program, and also has Agricultural Practice Improvement components with the adjacent dairy farms.

Atkins also recommends that we use raw water quality monitoring data at treatment works and other locations to demonstrate the benefits from our catchment management activities, which is then used to calibrate modelling work.[17] The source protection team already uses raw water quality monitoring data at treatment works, as well as other measured data, to calibrate the CIDSS and to verify modelled results.

We also have independent evidence that the delivery mechanism for investment in source protection natural assets provides value. A 2021 report by researchers from Griffith University includes a case study examining source water protection investment via the Lake Baroon Catchment Care Group.[18] The researchers found that for $1 spent by Seqwater through our delivery approach could realise between approximately $1.20 and $1.70 of benefits if invested through a partnership with catchment groups. The actual number will vary depending on the suite of interventions completed in a particular year and would most likely be in the range of $1.40 to $1.50.

In the coming years we intend to continue to progress research and data capture that will further assist us in measuring the benefits of our source protection activities and initiatives planned for the 2023-26 regulatory period.

Under-statement of actual average natural assets expenditure

Atkins' recommended allowance for 2022-23 to 2027-28 reflects an estimate of actual average expenditure between 2017-18 and 2020-21 of $5.9 million per annum (real).

As Atkins notes, our actual natural asset expenditure for 2017-18 and 2018-19 was $6.5 million per annum, which reflects initial programs across selected catchments only. There was an underspend in the following two years due to changes in our business processes, with only $5.2 million incurred in 2019-20 and $5.3 million in 2020-21. As evident from Table , the level of expenditure in those two years was anomalous and not representative of future expenditure.

While Atkins has noted forecast natural assets expenditure of $5.3 million in 2021-22 (consistent with the prior year), this expenditure has returned to planned levels and is forecast to be $6.9 million in this year. If the 2019-20 and 2020-21 years are excluded, average actual natural assets expenditure is $6.5 million. If this average is extended to include the forecast expenditure of $6.9 million for the 2021-22 year, it increases to $6.6 million. While our source protection programs are seeing increased expenditure in a number of key catchment areas to address identified risks, in relying on (lower) actual expenditure in 2019-20 and 2020-21 years to inform its estimate, Atkins is therefore also over-stating the assumed increase in expenditure from historical levels (where expenditure in the two years prior to 2019-20 averaged $6.5 million per annum).

Given our actual expenditure in 2019-20 and 2020-21 was not representative of our efficient natural assets expenditure for the 2023-26 regulatory period, it should not be used to inform our allowance for the next regulatory period. The inclusion of these years will result in a downward bias in estimated annual expenditure and will not be sufficient to compensate us for the prudent and efficient costs of our catchment management and source protection activities that we have committed to undertake with our partners.

5.3.2.3 Seqwater's updated proposal

The QCA considers that our proposed natural assets expenditure is prudent. Having regard to the above and the additional information we have submitted to the QCA and Atkins, we consider that the full amount of expenditure as proposed in our June 2021 Submission is also efficient.

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[17] Atkins (2021). p.79.
[18] McMahon, J.M., Smart, J.C.R., Hasan, S. Stewart, M., Smolders, A. (2021). Comparing Approaches for Investing in Catchment Interventions to Improve Drinking Water Quality. Australian Rivers Institute, Griffith University. Report for Seqwater.

The difference between the QCA's proposed allowance and our forecast expenditure is material. If the QCA reaffirms its draft position in its Final Report, our planned expansion of risk mitigating activities in two of our key catchments, Mid-Brisbane and Logan, will not be able to progress in the next regulatory period.

We request that consideration is given to increasing the annual allowance from $5.9 million to $6.6 million per annum ($2019-20). This is more representative of the efficient level of historical expenditure if the impact of the two anomalous years is removed, although is still below the forecast that we proposed for the 2023-26 regulatory period. As shown in Table , our forecast is for required expenditure to increase above this level over the 2023-26 regulatory period as we continue to roll-out our whole-of-system source projection program under our Regional Source Water Risk Reduction Plan and Wastewater Management Portfolio Plan.

This is in addition to our forecast expenditure for environmental offsets, which the QCA is proposing to accept as prudent and efficient.

5.3.3 Greenhouse gas emissions abatement

5.3.3.1 The QCA's Draft Report

In our June 2021 Submission we proposed a step change for operating expenditure associated with the implementation of our GHG abatement strategy (for example for the purchase of Large Generation Certificates or other abatement options).

The QCA accepts that "step changes should be included for future prudent and efficient incremental costs reasonably required to achieve broadly accepted changes in community expectations in relation to corporate responsibility (such as commitment to climate change mitigation)."[19] However, it stated that we had not provided sufficient justification for the proposed expenditure and hence cannot find the proposed costs as efficient. In particular, it is concerned that we are prioritising lower priority indirect measures over direct action, which is not consistent with our own emissions reduction hierarchy.

5.3.3.2 Seqwater's response

Our GHG abatement strategy

Sustainability is a key theme of our organisational strategy. Water security and social responsibility is one of the five external drivers of this strategy, requiring future recognition of the nexus between water, energy and carbon. Social license around the use of energy and emission-intensive water sources (amidst the water security risks associated with climate change) is critical as we look to increase use of such sources and potentially construct new sources to augment supply over the coming decades.

In November 2020 our Board approved our greenhouse gas (GHG) abatement strategy, which includes an aspirational target of net zero carbon emissions by 2050[20]. This is consistent with the Queensland Government's target, as well as targets set by some of our Retailer Customers (and/or their Council owners) and other Australian water utilities[21]. Currently this is a voluntary target based on the known policy landscape. In the future, we believe that it is almost certain that changes will be made by State and/or Federal Governments to the regulatory requirements around GHG emissions that will impact us during the next regulatory period.

Once approved by our Board, our proposed target was subject to endorsement by the responsible Minister, which was achieved through the approval of Seqwater's Operational Plan for 2021-22. This occurred on 30 June 2021, which was the same date as the lodgement of our submission to the QCA.

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[19] Queensland Competition Authority (2021). p.28.
[20] The Board approved carbon neutrality for Scope 1 and 2 emissions, excluding Scope 3 and dams emissions, based on NGERs definitions.
[21] Refer: https://www.wsaa.asn.au/media/water-utilities-unite-cut-emissions-race-zero

While we had developed a high level scope and cost of the activities required to work towards our proposed target in seeking approval from our Board (and subsequently, endorsement of our Operational Plan by the Minister), at the time of preparing our June 2021 Submission we were not in a position to be able to be specific in terms of the activities that we are proposing to undertake over the course of the 2023-26 regulatory period.

In the meantime, as outlined below, we have already undertaken a volume of work in developing our GHG abatement strategy. We have also been reporting our carbon emissions to the Clean Energy Regulator under the National Greenhouse and Energy Reporting Scheme (NGERS), focussing on two of the three categories of GHG emissions, being:

- Scope 1: direct emissions resulting from our activities and operations
- Scope 2: emissions associated with electricity consumption.[22]

Our target of carbon neutrality by 2050 relates to Scope 1 and 2 emissions.[23] We are also targeting net carbon neutrality (for scope 1 and 2 emissions) for all future major water source augmentations over their life cycle.

We have initiated a work program that has focussed on three main objectives, which is to understand:

- the extent of our (entire) GHG emissions, having already invested in staffing, systems and processes to develop our reporting capability in the current regulatory period to the point where we have developed good documentation and forecasts for our Scope 1 and Scope 2 emissions (for NGERS);
- the alignment between our Energy Strategy and GHG emissions, having completed initial work to align this strategy to our GHG abatement target, including alignment with the Strategic Asset Management Plan; and
- the options we should consider to reduce our GHG emissions. A first key step in this process was the completion of our first Marginal Abatement Cost Curve, which measures and compares the financial costs and benefits of different abatement activities. It will therefore be a key tool in identifying the most efficient strategies to achieve our carbon neutrality target, including capital projects.

In 2021-22, we continue to work on aligning our GHG abatement target, our Energy Strategy, and the APMP.

Understanding the expectations of the community, our key stakeholders and our Retailer Customers will be a key part of our journey to carbon neutrality, including in the identification and assessment of key initiatives. For example, our *Water Attitudes and Insights Study 2020*, which surveyed 1,400 respondents in South East Queensland, sought insight into the importance residents place on reducing GHG emissions as part of the production of drinking water, along with their willingness to pay for this. This revealed that:

- approximately 71% of residents believe it important to reduce GHG emissions in producing drinking water, with only 7% that definitely did not support it;
- around 54% of the households who believed it important to reduce GHG emission were prepared to pay a small additional amount on their quarterly water bill to reduce GHG emissions, rather than cut services to pay for the GHG abatement.

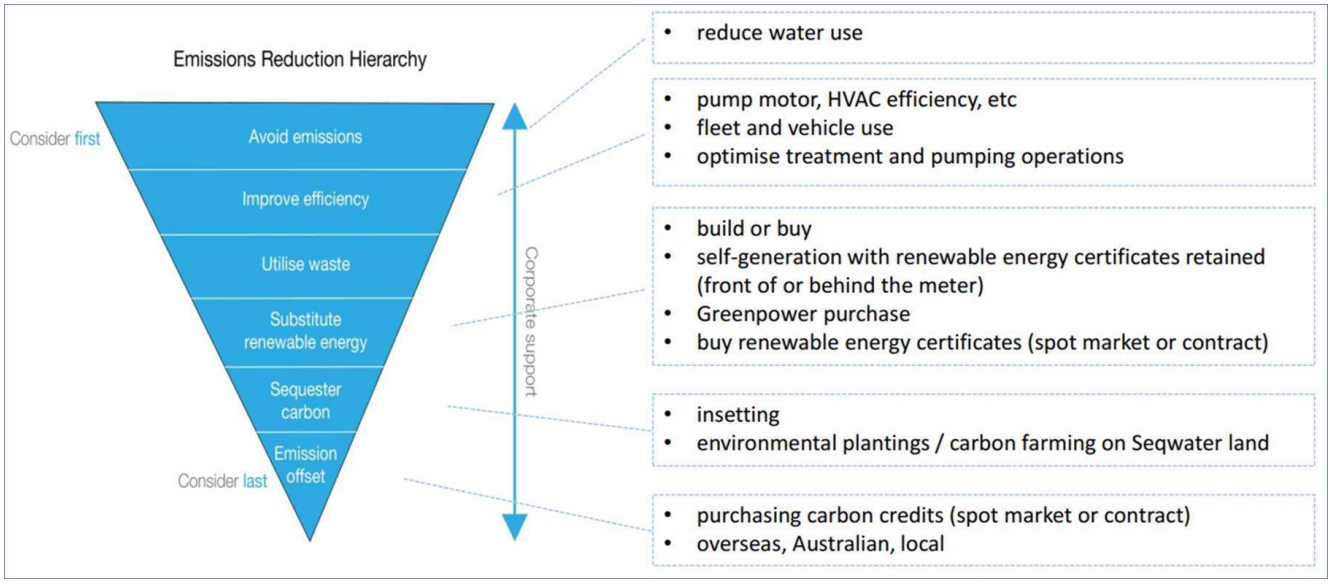
Collaboration with external partners on projects will also be in important part of our strategy. This includes undertaking leading research through the University of Queensland to measure the GHG emissions from our dams and weirs, as well as participating in research led by the Water Services Association of Australia in relation to customer preferences for GHG emissions offsets.

[22] The third category – Scope 3 – relates to upstream and downstream emissions from suppliers and customers.
[23] This is because this is not required to be reported under the NGERS (nor internationally), the emissions are difficult to measure and there is the potential for double counting between reporting entities.

Our emissions reduction hierarchy

The QCA's Draft Report refers to our emissions reduction hierarchy. As acknowledged by Atkins, this aligns with international best practice, such as the IEMA GHG Management Hierarchy.[24] This is shown below.

Figure 5.1 Seqwater's Emissions Reduction Hierarchy



Key elements of our hierarchy are discussed further below.

Avoid emissions	This is achieved by reducing water consumption by the end customer, which will reduce the energy required to produce and deliver treated water. We continue to engage with our Retailer Customers on water conservation messaging.[25]
Improve efficiency	This is achieved through: (a) energy efficiency measures on individual assets and equipment, such as pump and motor efficiency; (b) optimising the water treatment and pumping operations; and (c) improving Scope 1 energy efficiency such as motor vehicles (noting that emissions from Seqwater vehicles represents 1% of total emissions). As noted by the QCA and Atkins, we have already identified 164 energy efficiency opportunities in our Energy Efficiency Opportunities Register, with the potential to save more than 37 GWh annually, or around 20 per cent of current consumption. The QCA also cited Atkins' observation that we have not proposed significant investment in measures such as leakage reduction.[26] We agree that leakage reduction is often a significant efficiency improvement for a water distribution utility, however for a bulk water provider, leakages tend to be immaterial, if measurable at all. Leakages will occur when there is a significant event, such as the catastrophic failure of a bulk water pipe, which is rare for our asset base. However, we still intend to investigate whether it is economically feasible to measure leakages of bulk water.

[24] Atkins (2021). p.80.
[25] Refer our Water Security Status Report October 2021, available at: https://www.seqwater.com.au/sites/default/files/2021-11/Water%20Security%20Status%20Report%20October%202021.pdf
[26] Queensland Competition Authority (2021). p.29.

Utilise waste	We have a very small amount of waste from our water treatment process in the form of fugitive sludge and biosolids. We estimate that that they contribute up to 1% of total emissions for Scope 1 and 2. We have recently advanced trials of beneficial reuse of alum sludge and we propose to continue these with a view to finding a viable solution.
Substitute renewable energy	The key issue in substitution of renewable energy is how to do so efficiently. The first decision is whether to build (or make) or buy. Options here include investments in solar PV, with the QCA noting that we have identified around $14 million of investments that are expected to generate energy savings of 12.4 GWh over four years. As outlined in Chapter 4, we intend to actively assess these opportunities in the 2023-26 regulatory period, including having regard to managing the associated delivery risks. A further option is to purchase green power either from a specific renewable source or a generic green power certified product (in Australia, this includes Large Generation Certificates - LGCs). This could be investigated as part of our electricity procurement contract but only after consideration of the preceding steps in the hierarchy.
Sequester carbon	For most organisations, carbon sequestration is expensive and impractical. This is because most organisations do not have large areas of land available and/or the capability to execute such a program. We have suitable land to sequester carbon, as well as the capability and experience to execute vegetation offsets. We also have a relatively small amount of Scope 1 emissions to abate (less than 5,000 t CO2 -e). Carbon sequestration may be an appropriate solution for us if it is determined that the preceding steps in the hierarchy are not effective in abating all of our Scope 1 emissions.
Emission offsets	This is the purchase of carbon credits on the spot market or under contract, for example Australian Carbon Credit Units (ACCUs). This strategy is comparatively easy to implement and also provides the organisation with some flexibility, as it can determine how much it needs to procure (including the utilisation or surrender of offsets already held) to meet annual targets each year depending on its estimate of its actual (net) GHG emissions in that year. Prices are generally expected to increase as more organisations enter the market to procure credits to meet mandatory obligations or voluntary targets and this is an important consideration in their utilisation.

Proposed approach for the 2023-26 regulatory period and beyond

Our emissions reduction hierarchy reflects the optimal approach to GHG abatement that we are currently working towards, prioritising direct initiatives including reductions in water use and improvements in energy efficiency, over indirect measures, such as purchasing carbon credits. However, identifying, assessing and developing the most prudent and efficient means of direct action will also take time, cost and resources to implement. Our organisation has commenced this journey however has some way to go to achieve this level of maturity.

Based on the work we have already undertaken, we discovered that the internal solutions for energy efficiency and renewable generation are complex. This is for a number of reasons, including: the potential disruptions to our focus on bulk water production (e.g. switchboard physical changes, addressing building structural issues to accommodate solar); the allocation of project delivery resources to other critical projects; the reprioritisation of projects through the APMP based on our risk-based prioritisation process (as explained in Chapter 5 of our June 2021 Submission); and the relative newness of these types of activities for the organisation. These issues will be worked through over the coming year.

In the short-term, the lower priority indirect measures, such as purchasing renewable energy (includes Large Generation Certificates - LGCs) , provide an immediate means of commencing to offset our GHG emissions for a comparatively small investment and hence minimal price impact for customers. For example, we estimated that purchasing carbon offsets at a cost of between $0.5 million and $1.0 million would abate around 10% to 20% of our Scope 1 and 2 GHG emissions over those initial years (which will also depend on market prices).

While they would form a permanent part of our emissions reduction strategy (noting their flexibility in 'balancing' our carbon offsets to achieve annual targets based on estimated actual net emissions), in theory, the reliance on these instruments would reduce over time as the organisation's strategy matures and we have been able to implement prudent and efficient means of direct action. As noted above, the prices of these instruments are also expected to increase in future as demand grows.

Within this context, a multi-phase approach underpins our target of achieving carbon neutrality by 2050. The first phase, which is to be undertaken over the next regulatory period, is to progress the investigation, assessment and implementation of the most prudent and efficient initiatives that we will undertake in accordance with our emissions reduction hierarchy. In parallel with this, we will commence abatement by purchasing renewable energy (including LGC) and or carbon offsets (ACCUs). It is a likely that a combination of abatement options will be needed and the approach applied will continue to evolve over the price period.

This approach underpinned our proposed annual operating expenditure allowance of $1 million. We acknowledge that we had not put this proposal in adequate context and have therefore sought to clarify how we intend to progress our GHG abatement strategy. As evidenced from the above, we agree with the QCA that avoidance, efficiency and renewable energy should take precedence over emission offsets as part of a best practice approach.

The utilisation of carbon offsets in the 2023-26 regulatory period therefore did not reflect an intent to prioritise the use of these instruments over direct action (which would also have been in direct conflict with our emissions reduction hierarchy). Instead, as explained above, it is seen as an effective and flexible means of commencing the journey to our target of carbon neutrality by 2050 for a comparatively small price impact, while we progress the development and implementation of higher priority direct action measures under our emissions reduction hierarchy.

We anticipate that we will be well advanced in this journey by the end of the, having regard to ongoing changes in the policy and market environment.

5.3.3.3 Seqwater's updated proposal

We have already made significant investments in the current regulatory period to build our understanding of the drivers, nature and magnitude of our GHG emissions challenges, the abatement options available and the potential costs of abatement. This work has included assessing the potential role and costs for using carbon offsets and renewable energy for the abatement of our GHG emissions.

We will continue to progress this work in the 2023-26 regulatory period. The cornerstone of this will be our emissions reduction hierarchy, which is used to identify the most prudent strategies. The QCA's consultant, Atkins, has endorsed this hierarchy, which is internationally recognised. This will be complemented by a robust governance framework, capability building, processes and tools (such as our Marginal Abatement Cost Curve) that will ensure the most efficient options are pursued.

While we consider that our proposed approach for operating expenditure is prudent and efficient, we are prepared to accept the QCA's Draft Decision and focus on the development of appropriate capital initiatives, as outlined in Chapter 4.

5.3.4 Expenditure for planning major projects

5.3.4.1 The QCA's Draft Report

In our June 2021 Submission we proposed an allowance for costs we will incur in planning and investigating a number of large capital projects that are in the early stages of our gateway process.

The QCA's consultant, Atkins, did not challenge the classification of this expenditure as operating expenditure rather than capital expenditure. It assessed $48.8 million ($2019-20) of this expenditure as prudent and efficient. The remaining $23.9 million in proposed expenditure was seen as lacking detail and justification.

The QCA's draft position is that this expenditure should be capitalised. This is because of the high level of uncertainty associated with these costs, including dam safety projects, "as they relate to projects that are not business as usual, due to their scale and infrequency."[27]

5.3.4.2 Seqwater's response

As acknowledged by the QCA, our approved Asset Portfolio Master Plan (APMP) identifies a larger number of high value and high profile capital projects in the coming years than we have previously undertaken, requiring us to incur costs additional to our business as usual expenditure. These projects were listed in Chapter 6 of our June 2021 Submission (Table 6.10) and are currently either at the pre-Gate stage or have progressed to a Strategic Business Case. This means that none of these projects are yet at the stage where a preferred option has been selected, nor has an investment commitment been made by the business.

Approaches applied elsewhere

While the capitalisation policies of businesses vary, it is not uncommon for expenditure incurred in the early stages of a project to be treated as operating expenditure (that is, they are expensed, rather than capitalised). In these early stages, potential options to address the business need – both capital and non-capital – are still being identified, scoped and analysed. There is still uncertainty as to whether the project will proceed, let alone the form of the final preferred option.

By way of example:

- In approving an allocation of part of the costs of Aurizon Network's Major Projects team to below-rail services operating expenditure, the QCA agreed with the assessment of its consultant AECOM, that "project costs should be mostly considered operating expenditure in the concept and pre-feasibility stage", which was also consistent with its Capitalisation Policy.[28] Its partial allocation recognised that some of these costs would be capitalised or were not related to the regulated service.
- WaterNSW's approach underpinning its forecasts for the 2016-20 regulatory period was to treat all project expenditure as operating expenditure up until the completion of the options analysis business case.[29] It is noted that WaterNSW had changed its capitalisation policy for the 2020-24 price review[30] however it is not known if this altered its treatment of project-related costs.
- In its 2020-24 determination for Hunter Water, while the Independent Pricing and Regulatory Tribunal (IPART) noted that detailed design costs are typically capitalised, it approved the recovery of these costs

[27] Queensland Competition Authority (2021). p.29.
[28] Queensland Competition Authority (2018). Decision: Aurizon Network's 2017 Draft Access Undertaking, December, p.117.
[29] Aither (2016). WaterNSW Greater Sydney Expenditure Review: A Review of Capital and Operating Expenditure, A Final Report Prepared for the Independent Pricing and Regulatory Tribunal, February, p.120.
[30] Independent Pricing and Regulatory Tribunal (2020). Review of Prices for WaterNSW, Greater Sydney: From 1 July 2020, Final Report, June.

for the Belmont Desalination Plant.[31] This was because that detailed design would not be triggered until storage levels fell below 60%, with construction not due to occur until storages reach 30%. It concluded that because construction of the plant was therefore unlikely to occur in the short-term (which would allow Hunter Water to recover those costs), it permitted recovery as operating expenditure.

- SA Water's capitalisation approach is to treat project-related expenditures as operating expenditure if there remains less than 50% certainty that the construction or acquisition of an item will proceed.[32] This approach has not been questioned by the regulator.

In electricity network regulation, the Australian Energy Regulator has noted that the capitalisation policies of the network businesses it regulates differ between them and have also changed over time.[33] In recognition of these differences, its current concern is the implications for its economic benchmarking analysis, which is used to assess expenditure proposals. It classifies capitalisation practices as an exogenous factor for this purpose "in that while it is somewhat under managerial discretion, this factor is unrelated to efficiency."[34] That is, rather than attempt to determine what the capitalisation policy should be, the focus of this review is on how it will take account of these differences in benchmarking the performance of the network businesses.

Implications for Seqwater

We acknowledge that the QCA's main concern with our proposal to recover these costs as operating expenditure is that they are uncertain. We agree that the degree of certainty is a legitimate issue in seeking to recover costs via operating expenditure. However, the QCA's draft position also rests on its conclusion that "Seqwater will be able to recover all prudent and efficient costs for planning associated with major projects studies when projects are commissioned."[35]

In the first instance, we do have a reasonable degree of confidence that these costs will be incurred over the 2023-26 regulatory period. This includes the costs associated with the dam safety upgrades, which will be necessary to meet our regulatory obligations and continue to deliver safe and reliable water supplies. It also includes early investigative works for our next major bulk water augmentation. However, we recognise that there is some uncertainty as to the amount and timing of the expenditures.

We are also implementing improvements to our gateway process by taking a portfolio approach to strategic assessments (currently Gate 0 in Queensland Treasury's Project Assurance Framework). This takes more of an integrated view of a particular program of works before it is broken down into its constituent projects. The strategic assessments will inform the development of our Integrated Master Plan, which will have better alignment in terms of the timing, size and nature of the individual projects required going forward. This is important due to the interactions within the SEQ Water Grid.

In looking to move to this approach, there is less certainty as to how the costs incurred in undertaking a portfolio strategic assessment would subsequently be allocated to constituent projects (recognising that this could include non-capital solutions). We will be giving further consideration to this issue as we roll out this approach in the forthcoming regulatory period.

It is also important to note that in being required to capitalise these costs for regulatory purposes, we will still be continuing to treat them as operating expenditure for accounting purposes (as relevant, in accordance with our

[31] Independent Pricing and Regulatory Tribunal (2020). Review of Prices for Hunter Water: From 1 July 2020, Final Report, June.
[32] Cardno (2020). Evaluation of SA Water's Asset Management System, Report Prepared for the Essential Services Commission of South Australia, 3 March.
[33] Australian Energy Regulator (2021). How will the AER assess the impact of capitalisation differences on our benchmarking, Consultation Paper, November.
[34] Australian Energy Regulator (2021). p.6.
[35] Queensland Competition Authority (2021). p.30.

capitalisation policy). While we recognise that divergences between accounting and regulatory practice do occur, it does create additional complexity, including for stakeholders relying on this data.

5.3.4.3 Seqwater's updated proposal

The costs we will incur in investigating these major projects in the 2023-26 regulatory period are material. The scale and scope of this work program is unique within the context of our business as usual activities, both historically and beyond the horizon of the next regulatory period (although this work program could extend into the following period). At the same time, given the improvements we have implemented to our asset management framework as outlined in our June 2021 Submission, we are confident that this program is deliverable.

We acknowledge the QCA's concerns regarding the certainty of these costs in the short-term, although there is regulatory precedent to recover early investigative costs as operating expenditure, as outlined above. However, the QCA's draft position also presumes a high degree of certainty in terms of our future ability to recover these costs "when projects are commissioned".

This has the potential to have a material and adverse effect on our investment incentives, including fully exploring non-capital solutions (which if pursued, could result us in having no mechanism to recover the costs incurred now). Before we embark on one of the most significant project planning and delivery phases in our recent history, we need an appropriate degree of confidence that we will be able to recover our prudent and efficient costs before a decision is made on the preferred option, assuming the project proceeds at all.

To the extent that the QCA's preferred approach is to capitalise these costs into the RAB, we therefore seek confirmation that we will also be able to do this where the conclusion from our investigation is to either not proceed with the project, or where the preferred option is a non-capital solution (subject to the requirement that those costs are prudent and efficient). This will be addressed at the end of the 2023-26 regulatory period. We would appreciate certainty as to the QCA's proposed treatment in its Final Report to support our approach, so that we can make expenditure commitments knowing that they will be recoverable (subject to the normal prudency and efficiency requirements).

5.3.5 Software as a Service

5.3.5.1 Overview

The capital expenditure forecast presented in our June 2021 Submission included Digital and Information Technology expenditure in accordance with our APMP. The QCA is proposing to accept our forecast capital expenditure for Digital and Information Technology as prudent and efficient.

That forecast is based on the increasing use of cloud-based Software as a Service (SaaS) and similar services as opposed to solutions implemented using physical assets on Seqwater premises or in dedicated data centres, an approach that was also endorsed by the QCA's consultant, Atkins[36]. Cloud-based SaaS has been central to the digital transformation that is impacting businesses across the world, including energy networks and water businesses. This has evolved to the point where in practice, we have been observing an increasing refusal by vendors to offer on-premises solutions. Instead, they are only offering cloud-based solutions.

As with most technological evolution, these developments progress at a comparatively rapid pace and well ahead of policy, including accounting treatment. In April 2021, the International Financial Reporting Interpretation Committee (IFRIC) published its final agenda decision on accounting for configuration and customisation costs in a SaaS arrangement (cloud computing). The Queensland Audit Office has advised that Seqwater is to apply this accounting policy change from 1 July 2021, that is, it will be applied retrospectively for accounting purposes.

[36] Atkins (2021). p. 119.

We had not assessed the potential implications of this at the time of preparing our June 2021 Submission. Having now considered those changes, some of this expenditure will be reclassified as operating expenditure in accordance with the new accounting policy. Noting that the QCA is proposing to approve our forecast capital expenditure, we consider it important to align the accounting and regulatory classifications for the next regulatory period where possible. As a result, we are proposing that some of the expenditure that was included in our capital expenditure forecast is removed from that forecast and reflected in our operating expenditure allowance for the 2023-26 regulatory period, which will require an additional step-change.

5.3.5.2 Reasons for the proposed change

Unless subject to a lease, most assets related to implementing SaaS solutions are likely to be intangible assets[37], although tangible assets may still be acquired or enhanced to facilitate these arrangements[38]. While there may be circumstances where it is appropriate to capitalise expenditure, the more likely treatment of payments made for cloud software that is acquired under a hosting arrangement is operating expenditure. The treatment that we will adopt as a business is to classify expenditure related to on-premises and private datacentre solutions as capital expenditure, while SaaS solutions will be deemed operating expenditure.[39]

As a reporting entity we are required to comply with the relevant standards and demonstrate to our auditors that the standard has been considered and applied correctly. In our 2021-22 financial statements we will be required to disclose the impact of the new accounting policy on the financial statements and quantify the financial movements.

We were only able to confirm the implications of the change in accounting policy in January this year. We therefore did not anticipate a potential re-categorisation of some of this expenditure from capital expenditure to operating expenditure when we prepared our June 2021 Submission. While we understand that there may be circumstances where maintaining a divergence between the accounting and regulatory treatment of expenditure is warranted, we see no compelling reasons for doing that in this case.

5.3.5.3 Seqwater's proposal

As a result of the reclassification of SaaS expenditure from capital expenditure to operating expenditure, we are proposing an additional operating expenditure step change as set out below.

Table 5.5 Proposed SaaS expenditure ($ million, 2019-20)

2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
0.9	1.1	1.1	0.8	1.6	1.7

To be clear, for regulatory purposes:

- this will only apply to our proposed expenditure from 1 July 2022 (noting that we are required to implement this for accounting purposes for the 2021-22 year);
- we will remain consistent with the current regulatory treatment and capitalise all expenditure up to 30 June 2022, including for the end-of period true-up for our actual 2021-22 expenditure (refer Chapter 7).

We consider that this is prudent and efficient because:

- the treatment of this expenditure as operating expenditure will align with recommended international best practice;

[37] Governed by AASB 138 Intangible Assets
[38] Governed by AASB 116 Property, Plant and Equipment and AASB Leases.
[39] This will also apply to expenditure relating to Infrastructure as a Service and Platform as a Service.

- we see no compelling reasons to maintain a divergence between regulatory and accounting treatment in this case;
- this expenditure was included in our proposed capital expenditure for Digital and Information Technology, which the QCA is proposing to accept as prudent and efficient; and
- we are not seeking an increase in total expenditure – we are only seeking to re-categorise some of our proposed (prudent and efficient) capital expenditure as operating expenditure.

5.3.6 Maintenance costs

As outlined in section 5.2.2.1, we did not propose a step change for increased maintenance expenditure in our June 21 Submission. Instead, we proposed to recover this by an adjustment to our fixed base year operating expenditure. Upon a more detailed examination of the drivers of that increase, we consider it appropriate to re-categorise some of that expenditure as a step change, even though the overall impact on our proposed operating expenditure allowance will be the same.

The work that supports our proposed step change was summarised in section 5.2.2.1. Our Technical Note (refer Attachment 4) identifies those areas of expenditure that are reflected in the step change. Having regard to the QCA's definition of a step change[40], this reflects the following drivers:

- audit requirements and ageing assets
- increased regulatory requirements (e.g. electrical safety)
- changes in certification requirements (e.g. the sanitary integrity of treated water reservoirs).

The identified drivers support a total step change of $3.0 million (2019-20) per annum.

5.3.7 Insurance premiums

The QCA is proposing to accept our step change that reflects the material increase in our insurance premiums, subject to validation of the estimate (such as an updated estimate from our insurance broker).

We have provided updated advice from Marsh, which is contained in Attachment 5. This advice confirms that the forecast it previously provided, which is the basis of our proposed allowance in the June 2021 Submission, "remains reasonable and current".

5.3.8 Summary of proposed step changes: fixed operating expenditure

A summary of our total proposed step changes for fixed operating expenditure is provided below.

Table 5.6 Fixed operating expenditure – total step changes ($ million, 2019-20)

	2022-23	2023-24	2024-25	2025-26	2026-27[1]	2027-28[1]
Seqwater proposed: June 2021	20.7	35.0	38.6	38.6	32.8	32.8
Seqwater updated proposal	26.2	26.2	26.6	28.8	27.4	27.6

[1] Indicative

[40] Queensland Competition Authority (2021). p.19.

5.4 Variable operating expenditure

5.4.1 Variable operating expenditure: base year

The QCA is proposing to accept our 2019-20 base year expenditure (as adjusted in our June 2021 Submission) as prudent and efficient revealed costs.

5.4.2 Step change: energy efficiency

5.4.2.1 The QCA's Draft Report

The QCA is proposing to reduce our variable operating expenditure by $10 million (nominal, between 2022-23 and 2027-28) for cost reductions associated with energy efficiency and solar projects. We had proposed a small capital expenditure allowance for energy efficient investments and had not proposed an allowance for solar projects, which reflected our risk-based prioritisation approach that underpins the planning and delivery of our APMP.

The QCA is proposing an allowance for 'spend to save' energy initiatives as part of capex (refer Chapter 4) and its forecast variable cost adjustment is based on the expected energy cost savings from these initiatives.

5.4.2.2 Seqwater's response

As outlined in Chapter 4, we accept the QCA's proposed capital allowance for energy efficiency and solar projects, subject to some minor changes to the delivery schedule for the solar projects. As these initiatives are designed to reduce energy consumption, a corresponding reduction in energy costs is expected post-implementation.

The QCA has proposed total reductions of $10 million, although the profile of its assumed reductions is not stated, including whether it is intended to align with the recommendations in the Atkins' report (which were in 2019-20 dollars).

The QCA has assumed that these savings will all relate to variable costs. We anticipate that some of these savings will relate to fixed costs. This will be reviewed further in the context of the relevant initiatives to confirm the most appropriate allocation between fixed and variable costs.

5.4.2.3 Seqwater's proposal

In the absence of information on the profile of the assumed savings in the QCA's Draft Report, we have applied a savings profile consistent with the recommendations made by Atkins.

As outlined in section **Error! Reference source not found.**, we do not consider it appropriate to lock in the allocation of target efficiency savings for future initiatives as fixed or variable costs. This will be addressed as appropriate for each initiative. We therefore propose to apply this reduction to total operating expenditure for the 2023-26 regulatory period, rather than as an adjustment to variable operating expenditure.

5.4.3 Step change: feedwater quality events

5.4.3.1 The QCA's Draft Report

The QCA is proposing to allow an additional allowance for feedwater quality events. This will result in these costs being treated as part of business-as-usual expenditure as opposed to being subject to a Review Event claim. It considers that this will encourage efficiencies in the management of these costs.

This is proposed as a step change to our variable operating expenditure base year. The proposed allowance is $3.5 million over 2023-28, which reflects annual expenditure of $0.5 million ($2019-20).

5.4.3.2 Seqwater's response

We support the QCA's proposal to include an allowance for feedwater quality events as part of our variable operating expenditure. This provides us with more certainty as to the recovery of these costs and potentially reduces the need to address under-recoveries as part of the Review Event mechanism. While we are also prepared to accept an allowance that reflects an assumed average annual level of expenditure, in practice there will continue to be variability in terms of the amount and timing of these costs. This reflects the inherent uncertainty surrounding feedwater quality events and the nature and scope of the response required to address them.

The QCA's proposed allowance was based on average annual expenditure for the current period, based on our Review Event claim. This reflected feedwater quality events in relation to the operations at Mt Crosby. These costs were (and continue to be) incurred for additional chemical dosing at Mt Crosby's East Bank Water Treatment Plant (WTP) and West Bank WTP to maintain treated water quality specifications when this materially deteriorates from normal background levels.

Each of Seqwater's WTPs have a different variable cost profile in relation to the management of water quality, reflecting a range of factors such as production rates, elevation of pumping, treatment processes, feedwater quality, seasonal changes and the types and amount of chemicals used to produce treated water. WTPs that extract feedwater from river sources such as Mt Crosby, Beaudesert and Lowood can at times experience significant variability in quality and require responsive changes to chemical dosing, resulting in higher costs per volume produced.

While a number of WTPs could experience an increase in costs due to poor and variable feedwater quality, the most material cost impact is when higher production costs must be incurred at our larger WTPs, in particular, Mt Crosby's East Bank WTP and West Bank WTP. For the known history of Mt Crosby, feedwater quality events have occurred on an almost annual basis, as evidenced by our Review Event claim for the 2018-90 to 2021-22 years.

While we have a good understanding of the main events that drive water quality issues at Mt Crosby, they are still challenging events to manage. We have standard operational procedures in place although additional incident management approaches may be employed. For example, the 2021 calendar year has already seen two events at this site, with the most recent event (occurring in November to December) proving the most challenging we have encountered since 2013.

The costs incurred at the Mt Crosby WTPs over the 2018-22 period that underpinned our Review Event claim and hence the QCA's proposed allowance relate to the application of two main chemicals - aluminium sulphate and sodium hydroxide. However depending on the nature and scale of the event, other costs may be incurred, including invoking other supply strategies across the water grid (such as the operation of the Tugun Desalination WTP). Other additional costs can include electricity, residuals (sludge) management and potentially employee expenses.

There may also be other low probability but high impact events. For example, if extensive rainfall in the catchments leads to flooding of the Mid-Brisbane River, this could require Mt Crosby WTP operations to be shut down. For example, at approximately a 1:125 year flood level, the feedwater pumping station at the East Bank WTP becomes flooded and inoperable, requiring extensive recovery and repair costs for mechanical, electrical and control system equipment.

It is not appropriate to attempt to factor low probability and/or highly uncertain costs and events into the proposed allowance. However, if the Review Event mechanism is removed completely on the presumption that it has been replaced by the allowance, we could incur material costs for which we are not able to be compensated.

5.4.3.3 Seqwater's proposal

We support the QCA's proposed allowance of $0.5 million per annum ($2019-20). As set out above, this reflects the costs in responding to feedwater quality events at Mt Crosby's East Bank and West Bank WTP that

have a greater degree of certainty and predictability, being aluminium sulphate and sodium hydroxide costs (noting that year to year variability in these costs can still be expected to occur).

It is therefore important to recognise that in basing the allowance on actual historical expenditure, it will not necessarily reflect all of the costs that we may incur in managing feedwater quality going forward. We therefore remain exposed to the risk that we could still incur significant costs in responding to events that have a high degree of uncertainty (and/or have a comparatively low probability of occurring). For example, these could include (but are not limited to):

- necessitating alternate or supplementary supply strategies, such as operating the Tugun Desalination WTP;
- flooding of the Mid-Brisbane River; or
- feedwater contamination events such as chemical spills in the Mid-Brisbane River.

We therefore request that the existing Review Event mechanism remains in place for any material and unforeseen expenditures we incur in responding to a feedwater quality event that are not reflected in the approved allowance. This would continue to be subject to the same burden of proof that we must meet in making any such claims for approval by the QCA, including that these costs were prudently and efficiently incurred and were not otherwise recovered in existing allowances.

5.4.4 Summary of updated proposal: variable operating expenditure

To summarise, our proposed variable operating expenditure is as follows.

Table 5.7 Updated proposal: Variable operating expenditure ($ million, nominal)

	2022-23	2023-24	2024-25	2025-26	2026-27[1]	2027-28[1]
Seqwater proposed: June 2021	38.7	40.7	42.8	44.9	47.0	49.1
QCA Draft Decision	38.9	40.4	41.6	42.9	44.6	46.4
Seqwater updated proposal	38.9	40.4	41.7	43.0	44.7	46.5

[1] Indicative

5.5 Escalation factors

The QCA is proposing to accept the approach used to forecast our input price escalators. With the exception of electricity, in its Draft Report it updated the escalators to reflect the most recent data. It accepted our electricity cost escalator with no adjustment.

We have again engaged Frontier to update our input price escalators for the most recent data, using the same methodologies and assumptions used in our June 2021 Submission (which has been endorsed by the QCA). Its report is contained in Attachment 6.

Our updated input price escalators are summarised below.

Table 5.8 Updated input price escalators

Cost Category	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27[1]	2027-28[1]
Employee and contract labour expenses	0.20%	4.44%	4.42%	2.50%	2.75%	2.36%	2.36%	2.36%
Service delivery contractors – labour	0.20%	4.44%	4.42%	2.50%	2.75%	2.36%	2.36%	2.36%
Service delivery contractors – non labour	3.80%	1.50%	2.10%	2.22%	2.26%	2.39%	2.41%	2.32%
Electricity	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
Chemicals	3.80%	1.50%	2.10%	2.22%	2.26%	2.39%	2.41%	2.32%
Other materials and services	3.80%	1.50%	2.10%	2.22%	2.26%	2.39%	2.41%	2.32%

[1] Indicative

5.6 Efficiency target

5.6.1 The QCA's Draft Report

The QCA is not proposing to apply an ongoing efficiency target to our controllable operating expenditure, subject to us submitting a credible efficiency plan. It states that this is its preferred approach, provided we have such a plan in place.

5.6.2 Seqwater's response

We support the QCA's preferred approach. This reflects the fact that identifying and implementing efficiency savings is a dynamic and continuous process that will also adapt and respond to the needs and priorities of the business. However, we also understand the importance of striving to continuously improve efficiency with a view to reducing costs and/or improving services to our customers. We also understand that we remain accountable to our customers, the QCA and stakeholders to demonstrate this. As noted above, it may also be necessary for us to find efficiencies to fund necessary expenditures that have not been reflected in the QCA's final recommended operating expenditure forecast.

We have prepared an efficiency plan and will provide it to the QCA.

5.7 2023-26 operating expenditure: summary of our updated proposal

Based on the above, our updated operating expenditure forecast for the 2023-26 regulatory period is shown below.

Table 5.9 Summary of forecast operating expenditure ($'000)

	2022-23	2023-24	2024-25	2025-26	2026-27[1]	2027-28[1]
Fixed opex base ($2019-20)	224,298	224,298	224,298	224,298	224,298	224,298
Fixed opex steps ($2019-20)	26,205	26,187	26,615	28,795	27,436	27,563
Total fixed opex ($2019-20)	250,503	250,484	250,913	253,093	251,734	251,861
Weighted escalator	108	111	114	116	119	122
Total Fixed Opex (nominal)	271,310	277,636	284,993	294,305	299,720	306,883
Variable opex(nominal)	38,883	40,399	41,728	43,022	44,661	46,507
Total opex (nominal)	**310,194**	**318,034**	**326,720**	**337,327**	**344,381**	**353,390**

[1] Indicative

6 Drought

6.1 Overview

There are a number of aspects of the QCA's Draft Decision that relate to drought. Given these issues are related they are addressed together in this chapter.

There appear to be two primary concerns expressed by the QCA in relation to the drought submission:

- what is the appropriate definition of a 'drought response' - the QCA's potential interpretation is that it may be appropriate to only reimburse for costs incurred beneath the drought response trigger (currently 60% under the WSP2017); and
- costs incurred in relation to the Luggage Point Advanced Water Treatment Plant (AWTP).

The first issue relates to all types of drought initiatives claimed, ranging from media campaigns, to planning for future and potential imminent worsening of drought conditions, to responding to real and present water security risks that are occurring at the sub-regional level (which are therefore not reflected by the overall SEQ Water Grid storage levels).

The second issue relates to how the WCWRS can be effectively implemented to cater for the requirements of the Water Security Program, including necessary planning and preparation. This is relevant to the following proposals:

- the drought Review Event claim for the current regulatory period;
- the step change in opex for the 2023-26 regulatory period; and
- the forecast drought costs that would be used to set a drought allowance.

The costs submitted to the QCA in our August 2021 Supplementary Submission were presented from the 2017-18 financial year up until 31 March 2021. We have therefore provided updated prices until 31 October 2021 in response to the ongoing drought conditions that occurred after March 2021.

The updated costs are consistent with those originally presented, as upon review it is still considered that the original costs represent prudent and efficient responses to worsening drought conditions.

This chapter supports why this view is held. It discusses why inclusion of drought readiness costs is appropriate, and why costs relating to the Luggage Point AWTP are appropriate, consistent with advice from independent reviews and necessary to support infrastructure that represents a paradigm shift in how water is delivered and managed in SEQ.

6.2 Original and updated costs for current period drought Review Event

Table 6.1 Original and updated drought Review Event costs

Cost Category	2017-18	2018-19	2019-20	2020-21	2021-22 (to 31 Oct 21)	Total
Original Claim	$1,918,634	$3,241,847	$13,312,438	$30,513,100 (including forecast)	$22,995,778 (forecast only)	**$71,981,796**
Updated Claim	$1,918,634	$3,241,847	$13,312,438	$22,066,964	$6,558,028	**$47,097,911**
Adjustment				-$3,764,792		**-$3,764,792**
New Total	**$1,918,634**	**$3,241,847**	**$13,312,438**	**$18,302,172**	**$6,558,028**	**$43,333,119**

The 'adjustment' line included above is in response to feedback provided by the QCA in its Draft Report,[41] where it identified that an adjustment should be made for the costs saved from traditional water treatment facilities through the production of manufactured water. This feedback is accepted and a correction has been made accordingly.

It was identified that $3.765 million of operating costs were effectively saved at treatment plants through operation of the Gold Coast Desalination Plant (GCDP) in response to drought (incorporating operation of the GCDP up to 62%). The plant produced 29,927 ML of desalinated in drought response. The weighted average variable cost of all Seqwater's treatment plants was $125.80/ML for 2021, as calculated in the QCA's final regulatory model for the 2018-21 regulatory period. We have applied the $125.80/ML to 29,927 ML to calculate the adjustment in 2021 as shown above,

Operation of the WCRWS has been used to supply industrial customers, primarily to substitute raw water taken from Wivenhoe Dam by Tarong and Swanbank power stations. As these power stations take only raw water, there is no offsetting saving related to a reduction in potable water treatment.

6.3 Prudency and efficiency of actions relating to the WCRWS

6.3.1 Responding to feedback from the QCA's Draft Report – step change and drought allowance costs

The QCA is seeking further justification of our proposed step change to recover additional operating expenditure associated with maintaining the Luggage Point AWTP in a low flow state of operation in normal operating conditions.

While it supports our ability to recover these costs if they are prudent and efficient, it has questioned whether this is the most efficient mode of operation. It comments that it is uncertain as to how the ongoing operation of the Luggage Point AWTP will be addressed under the updated Water Security Program version 3 (WSP 2022), which is still in the process of development, acknowledging that it "is not uncommon for water security planning

[41] Queensland Competition Authority (2021). p.93.

processes to not align with regulatory processes".[42] In the meantime, it has sought greater clarity from us as to the best means of recovering the prudent and efficient costs associated with operating this facility in this instance.

We have prepared a comprehensive report responding to the key concerns that have been identified by the QCA in its Draft Report. This also summarises the extensive work that we have undertaken to date in relation to the partial recommissioning of the WCRWS, which demonstrates why the actions that we have taken (or intend to take) are prudent and efficient. All of these actions have been undertaken within the context of the WSP2017. As this report is commercial in confidence, it will be provided separately to the QCA. We have also provided additional evidence to support the prudency and efficiency of our costs.

Importantly, this also highlights the planning and preparatory work that is required prior to officially commencing the recommissioning process. The WSP2017 assumes that the infrastructure such as the GCDP and/or the WCRWS commissioning starts as soon as the relevant trigger level is reached. To support this, certain investigations and preliminary work needs to be done beforehand. Our report also explains the reasons behind the partial recommissioning of the first train at the Luggage Point AWTP and the benefits that has realised in gaining a better understanding of the infrastructure and recommissioning process to facilitate full recommissioning should it be required, noting that this is a decision of Government.

The other key aspect of planning in relation to the recommissioning and operation of the WCRWS is the exit strategy. The drought response exit trigger is not the same as the drought response entry trigger. As stated in the WSP2017:[43]

> "Drought exit triggers have not been prescribed. South East Queensland will exit drought adaptively for the drought situation at the time. Drought exit will not be the same trigger as drought entry and it will be a stepped exit**.** At the time of each potential stepped drought exit consideration needs to be given to the climatic conditions, demand, probability of again reaching the drought response entry trigger, drought response action and other relevant matters."

We have examined the proposed exit strategy given the current and committed level of infrastructure investment at Luggage Point Advanced Water Treatment Plant. Our analysis found that the prudent and efficient exit option, given the current status of the WCRWS, is to reduce the average daily production of the three trains at the Luggage Point AWTP to a flushing volume plus 6ML/day supply to industry. This is the minimum average daily production volume that will allow for the continued maintenance of the WCRWS assets to be met, allows for the ongoing validation and testing requirements of the WCRWS assets and meets the minimum requirements of the industrial clients requiring PRW.

It is noted that the exit operating strategy of flushing plus 6ML/d is slightly less expensive than the hot standby mode referenced in the WSP2017.

6.3.2 Seqwater's updated proposal for step change

$7.181 million (2019-20) per year was identified as a step change cost in operations at Luggage Point in the June 21 Submission. After completion of a further assessment of the forecast costs as part of the exit strategy work for committed assets, the $7.181 million has increased to $8.5 million. The increase is due to a more detailed calculation of the flushing volumes required to maintain a chlorine residual in the pipelines, based on the currently committed infrastructure commissioning.

[42] Queensland Competition Authority (2021). p.27.
[43] Seqwater (2017). Water for Life: South East Queensland's Water Security Program, 2016-2046, Version 2, p.93.

6.4 Eligibility of drought response actions for review

6.4.1 Classification of drought expenses

The other key issue in this review is the QCA's proposed interpretation of 'drought response'. This is crucial to the Review Event definition, as well as the prudency and efficiency of actions taken in relation to the partial recommissioning and operation of the Luggage Point AWTP. As we have sought to explain, these actions are an important part of ensuring that the WCRWS can effectively serve its role as a key plank in our drought response strategy within the context of the WSP2017 and the timeframes required.

We commissioned an expert report from Frontier to examine this issue (refer Attachment 7). It highlights that the QCA has in effect proposed two alternative approaches to assessment of the claimed costs:

- A 'narrow definition' approach, which interprets the words "cost of drought response" as pertaining only to actions explicitly documented in the Water Security Program (WSP) as relating to the specific trigger called 'drought response' in the WSP.
- A 'broader definition' or more holistic approach, which focuses on assessing the prudency and efficiency of the costs incurred by Seqwater in preparing for and proactively managing drought on behalf of SEQ at both the readiness and drought response stages (as reflected in its review event claim).

The report assessed the merits of the two approaches based on a number of well-accepted principles of economic regulation. Frontier considers that the second broader definition is more appropriate and consistent with a number of well-accepted principles of economic regulation. That takes a more holistic approach based on the prudent and efficient costs incurred by Seqwater in preparing for and proactively managing drought at both the drought readiness and drought response stages. This is also consistent with the definition of a 'drought response action' with the Regulator's 2021 *Water Security Program Guidelines South East Queensland*, which:[44]

> "…includes any measure, arrangement or strategy taken to prepare for, or respond to, drought that is triggered at or below the drought readiness level. Only key drought response actions that are considered to individually have a significant impact on water security, should be noted in the Water Security Program. Examples of additional activities that may be undertaken that might not be specified in the Water Security Program include studies, investigations and planning to support the delivery of drought response actions; and bringing forward actions that are prudent and efficient, including infrastructure, that are within the current planned capital works program. Examples of key drought response actions include increasing manufactured water production, increasing take from underutilised or banked supplies, conducting studies and investigations on potential measures to improve water security, and communications on water efficiency."

This clearly contemplates activities taken once the drought readiness trigger has been reached and also recognises that this may include activities that are not specified in WSP2017. It therefore does not separately define a 'drought readiness action'.

If the QCA's narrow and strict interpretation is followed, any costs that Seqwater incurs as part of drought readiness may not form part of drought response and cannot be recovered as a Review Event. This means that costs we have incurred to date as part of drought readiness (that were not reflected in our approved allowance for the current regulatory period) cannot be recovered. It also means that going forward, we would have no incentive to incur any additional costs in drought preparedness – including preparing the WCRWS for recommissioning – until storages have reached the drought response trigger.

[44] Department of Regional Development, Manufacturing and Water (2021). Water Security Program Guidelines South East Queensland v.3.00, p.4.

This means that we would not reasonably be in a position to start activities when stipulated by the WSP. It would also mean that we would not be able to continue to build on existing planning and preparations for the WCRWS scheme to ensure the scheme can be implemented successfully.

The QCA does potentially acknowledge this, stating that:[45]

> "Carrying out an activity in advance of the drought response trigger *may* lead to costs being incurred for longer (e.g. earlier operation of the partially recommissioned recycled water scheme). However, this *may* not always be imprudent or against the public interest and indeed there *may* be cases where it is prudent and in the public interest for cost to be incurred earlier."

It also recognises that "Seqwater may not have been adequately compensated for drought readiness costs through the current opex allowance."[46]

We have sought to provide additional information to demonstrate why these actions were prudent and efficient. As we highlight in our report, if the necessary preparatory work had not been undertaken (including the experiences we have gained with the partial recommissioning) the recommissioning of the WCRWS would not have been able to occur within the required timeframes when it is actually needed (and assuming the required Government decision had occurred). This would mean that we would fail to satisfy our obligations under the WSP2017 and could have major consequences for water security in South East Queensland.

We draw upon the additional evidence we have presented to demonstrate the prudency and efficiency of our actions taken in relation to the WCRWS to support our key proposals as summarised below.

6.4.2 Specific exclusions proposed in the QCA's Draft Report

The QCA is proposing to exclude $12.1 million in costs from our drought Review Event claim because the costs do not meet the Review Event definition. This is based on the narrow interpretation of 'drought response', as discussed above, stating that these costs either "resulted from taking measures that were not drought response measures, or they were undertaken too early according to the drought response triggers in the WSP."[47]

Specifically, if that definition is adopted the QCA would exclude:

- $3.2 million in costs that it does not consider are a drought response measure according to the Water Security Program;
- $9 million in costs taken in advance of the drought response trigger. This includes costs associated with the partial recommissioning of one train at the Luggage Point AWTP.

The QCA also stated that "we are not yet satisfied that the remaining costs are prudent and efficient and seek further information from Seqwater to justify its claim."[48]

In proposing to apply its narrow interpretation of drought response under the Water Security Program, the QCA does however acknowledge that:[49]

> "We recognise that no water planning document can precisely determine the optimal approach to prepare for and respond to drought, as the optimal approach is likely to reflect the relevant circumstances. We also acknowledge that Seqwater may not have been adequately compensated for drought readiness costs through the current opex allowance."

[45] Queensland Competition Authority (2021). p.91.
[46] Queensland Competition Authority (2021). p.93.
[47] Queensland Competition Authority (2021). p.93.
[48] Queensland Competition Authority (2021). p.93.
[49] Queensland Competition Authority (2021). p.93.

It therefore states that it is minded to allow us to recover costs that do not meet the Review Event definition, "but only if Seqwater can justify the costs were prudently and efficiently incurred to prepare for drought."[50]

6.4.3 Seqwater's response

The $3.2 million in costs that were not considered as a drought response measure included:

- WCRWS Readiness Activities ($0.5 million). These costs were incurred to support deferral of a much larger costs associated with potential full recommissioning of the remaining WCRWS ($80 million).
- Costs to enable the GCDP to operate in accordance with the requirements of the WSP2017 at 60% ($0.2 million).
- Costs to managing emerging risks to continuity of supply due to localised drought conditions in the north, that were not reflected in the overall SEQ Water Grid levels (meaning that local water availability in the region was considerably lower than availability for the whole of SEQ).
- Resourcing costs to manage sub-regional and regional drought responses. Our assets and processes are complex and it was necessary to hire team members prior to the 60% trigger to enable them to have stakeholder engagement and planning in place so that they could immediately commence actions on reaching 60%.
- Costs for drought media that is not covered by business as usual costs but is stipulated in the WSP2017 as needing to occur at 70%.
- Other costs for planning for additional worsening drought.

There were $9 million in costs that were rejected because of their timing, and it was considered that "carrying out a cost in advance of a trigger may lead to costs being incurred for longer, however it was recognised that it may be in the public interest for costs to be incurred earlier.

We acknowledge that it may not have been clear in our August 21 Supplementary Submission, but $1.9 million of the operating expenditure related to recommissioning infrastructure potentially could have been classified instead as capital expenditure. Recommissioning the first train at Luggage Point ($1.5 million) and reinstating pipework to supply Tarong Power Station ($0.4 million) were necessary to complete before the subsequent supply of Purified Recycled Water that has been accepted at levels less than 60% could occur.

The majority of the remaining funding request focussed on operating a train at Luggage Point.

As has been stated earlier, partially recommissioning the WCRWS through operating a train at Luggage Point has supported the potential full implementation of the WCRWS as a whole, noting that this is a decision of Government. It has also supported deferral of recommissioning the WCRWS when 60% was reached, which would have been substantially more expensive.

6.5 Drought allowance costs

6.5.1 The QCA's Draft Report

6.5.1.1 Drought allowance costs

The QCA has recognised the inherent uncertainty in forecasting drought response costs, noting that it is designed to work in conjunction with the Review Event mechanism.

However, it stated that it is not able to form of view on the prudency and efficiency of our drought costs. It also noted that its consultant, Atkins, had limited confidence in the efficiency of our proposed costs, particularly in

[50] Queensland Competition Authority (2021). p.93.

relation to the recommissioning of the WCRWS. With most of the recommissioning works to be undertaken by our facility operator, Veolia, Atkins also questioned whether there had been adequate benchmarking and market testing of the proposed costs. The QCA has therefore requested "greater detail and more justification"[51] to demonstrate the prudency and efficiency of our forecast drought allowance costs.

6.5.1.2 Revenue shortfall due to lower demand

The QCA is proposing to accept our demand forecast under drought operating conditions and the approach we have applied to estimate our revenue shortfall (which is the product of the bulk water price under normal operating conditions and the forecast reduction in demand).

6.5.1.3 Additional revenue from other sources

The QCA is proposing to accept our forecast revenue offset from selling additional water during drought to Toowoomba City Council and the power stations, although has sought further information on our demand forecasts from these sources.

6.5.2 Seqwater's response

We acknowledge and thank the QCA for acceptance of our approach to managing revenue shortfalls and revenue received from other sources. Extensive further information regarding the prudency and efficiency of the WCRWS has now been provided.

There is no change proposed to the drought allowance costs already submitted in the August 21 Supplementary Submission.

[51] Queensland Competition Authority (2021). p.102.

7 Updated total revenue requirement: normal operating conditions

7.1 Overview

Based on our updated proposals set out in this response this section summarises our updated total revenue requirement for the 2022-23 to 2027-28 years under normal operating conditions.

This includes updating the following items that relate to the current period for the most recent data:

- actual 2020-21 expenditure and demand as required to calculate our end-of-period adjustments and the Price Path Debt balance;
- inflation, which impacts the roll forward of our Regulated Asset Base (RAB) and hence our opening RAB as at 1 July 2022;
- the QTC cost of debt for 2020-21, which will impact the true-up between our actual and forecast cost of debt, which will impact the Price Path Debt balance; and
- actual 2020-21 expenditure relating to natural assets and grid support, which are to be capitalised. As outlined in 5.3.2, natural assets expenditure is to be re-categorised as opex from 1 July 2022.

Consistent with standard practice, we have not undertaken a partial true-up for the 2021-22 year. This will be addressed as part of the true-up at the end of the 2023-26 regulatory period, noting that this is subject to the terms of the Referral Notice at that time. There is one exception to this. As explained in Chapter 6, given the materiality of our drought Review Event claim for the current period, we have updated our drought Review Event costs as at 31 October 2021.

We are also concerned with the QCA's proposed treatment of our revenue offsets. This is discussed further below.

7.2 Updated RAB roll-forward

We have updated the roll-forward of our RAB to 30 June 2022 to reflect the following:

- actual inflation for 2020-21, along with an update of forecast inflation for 2021-22 using the inflation swaps approach (refer section 3.2);
- an update of actual expenditure to be capitalised in 2020-21 that relates to natural assets and grid support.

Table 7.1 RAB roll forward to 1 July 2022 ($ million, nominal)

	2017-18	2018-19	2019-20	2020-21	2021-22 (f)
Opening RAB	8,465.7	8,470.5	8,475.4	8,248.1	8,481.8
Actual capitalised expenditure	97.63	106.76	107.74	85.76	134.86
Asset indexation/inflationary gain	145.6	143.2	(89.2)	408.7	128.2
Depreciation	(238.4)	(245.0)	(245.9)	(260.8)	(265.4)

	2017-18	2018-19	2019-20	2020-21	2021-22 (f)
Closing RAB	8,470.5	8,475.4	8,248.1	8,481.8	8,479.4

7.3 Updated Price Path Debt Balance

We have updated our Price Path Debt Balance to reflect:

- our updated drought Review Event costs, based on actual expenditure to 31 October 2021;
- the most recent updates to the QTC cost of debt (refer section 3.1.2.3);
- in addition to updating our RAB roll-forward for actual 2020-21 inflation and the most recent forecast for 2021-22, updating the inflation adjustment to our Maximum Allowable Revenue (MAR);
- updating our demand-related variable cost adjustment for:
  - actual demand in 2020-21;
  - actual variable opex in 2020-21.

The updated balance is shown below.

Table 7.2 Price Path Debt Balance ($ million, nominal)

	2017-18	2018-19	2019-20	2020-21	2021-22 (f)
Opening balance	2,415.9	2,480.5	2,541.2	2,758.5	2,509.4
Updated MAR	799.1	865.0	1,072.8	602.1	886.3
Actual revenue	856.5	931.3	990.0	982.4	1,085.0
Variable opex savings	0.0	1.8	2.2	0.0	0.0
Net adjustments for Review Events	2.5	3.5	14.3	20.0	6.0
Updated actual interest costs	123.5	126.8	128.8	138.5	129.2
Closing balance	2,480.5	2,541.2	2,758.5	2,509.4	2,436.8

7.4 Revenue offsets

7.4.1 The QCA's Draft Report

Each regulatory period we offset revenue received from other sources (primarily from sales to Toowoomba Regional Council and the power stations) against our total bulk water revenue, reducing the amount we are required to recover via bulk water prices. Demand from these sources increases during drought. For the current regulatory period, we proposed to offset the additional revenue received from these water sales against our drought Review Event costs.

The QCA is not proposing to accept this treatment. It proposes to continue to apply this additional revenue as part of the end-of-period adjustment.

7.4.2 Seqwater's response

We remain of the view that the more appropriate treatment is for the additional revenue earned from water sales that occur as a consequence of drought to be applied against the costs we incur in managing and responding to drought (noting that the SEQ Water Grid may not officially be in 'drought' for this additional demand to emerge as it will also be driven by localised factors).

We consider it logical to apply additional revenue from these drought-related water sales to fund our drought-related expenditures. Further, this will also reduce the amount that we are required to recover at the end of the regulatory period via the Review Event and hence an end-of-period adjustment. We consider to the extent possible, the objective should be minimise our reliance on end-of-period adjustments, because:

- our current focus is on paying down, rather than adding to, the Price Path Debt;
- these adjustments add to the factors driving price changes for customers between periods;
- we remain exposed to the risk that we are unable to fully recover our drought-related costs. As we have also highlighted, we have no certainty as to whether the end-of-period true-up mechanism will remain a feature of future Referral Notices.

In applying these additional revenues to offset drought costs within the Review Event mechanism, those costs will still be subject to an end-of-period prudency and efficiency assessment by the QCA. We also note that offsetting additional revenues from other sources against drought costs (and foregone revenue) is the QCA's proposed approach in recommending the total revenue to apply in setting a drought allowance.

If the QCA determines that it will retain its treatment in the Final Report, this increases the imperative to ensure that we have confidence that we will be able to recover our prudent and efficient drought-related costs.

7.5 Updated total revenue requirement

To summarise, our updated proposed total revenue requirement is as follows.

Table 7.3 Updated total revenue requirement ($ million, nominal)

	2022-23	2023-24	2024-25	2025-26
Return on assets	497	492	489	489
Depreciation	272	279	285	290
Operating costs	307	315	324	334
Tax allowance	0	55	83	104
Total: building block costs	**1,077**	**1,141**	**1,181**	**1,217**
Less inflationary gain/asset indexation	(182)	(194)	(201)	(216)
Less revenue offsets	(20)	(21)	(21)	(23)

	2022-23	2023-24	2024-25	2025-26
Less mid-year cashflow adjustment	(16)	(15)	(15)	(14)
Total MAR: normal operating conditions – before PPD repayment	**859**	**911**	**943**	**965**
PPD interest	125	115	102	83
PPD repayment	324	377	454	553
Total: PPD repayment	**450**	**492**	**556**	**636**
Total revenue: normal operating conditions – with PPD repayment	**1,309**	**1,403**	**1,499**	**1,601**

8 Future Review Events

8.1 The QCA's Draft Report

The QCA is proposing the following changes to the definitions of Review Events for the 2023-26 regulatory period.

- Removal of the cost of debt Review Event, on the basis that any end of period true-up for differences between the forecast and actual cost of debt is a matter for Government policy and hence should be addressed in future Referral Notices.
- Removal of the feedwater quality Review Event, on the basis that this will now be covered by the proposed opex allowance.
- Amendments to the drought Review Event, to exclude costs already recovered through the drought allowance, as well as "costs associated with drought preparedness or readiness."[52]
- An amendment to the change in law of Government policy Review Event, as it is considered unnecessary to qualify any such events as being outside of Seqwater's control because this should always be the case.
- An amendment to the emergency Review Event, but only if Seqwater is not at fault.

Amendments to make it clear that all claims are subject to an ex post review for prudency and efficiency.

The QCA is proposing to retain the emergency Review Event, which only applies if Seqwater is not at fault.

The QCA is also proposing to remove any references to foregone revenue under Review Events (meaning that we cannot use this mechanism to recover any revenue shortfalls arising from the event). This is because to date, this has been addressed by our end-of-period true-up mechanism.

There were two additional Review Event provisions approved by the QCA in its Final Report for the 2015-18 regulatory period that were carried through to the 2018-21 regulatory period (noting that the QCA made no specific comments about these provisions in that review). The QCA has not mentioned these in its Draft Report and they are not included in its final list of proposed Review Events. These are:

> "Where the impact of law or government policy on bulk water prices is unambiguous, it be automatically passed through by Seqwater to customers."
>
> "Where Seqwater can demonstrate that it is unable to manage the impact of unexpected changes to water demand or supply which causes a change in revenue or prudent and efficient costs."

We do not know its intent in relation to the first provision. It has also not been explicit on the second, except to the extent that it relates to changes in revenue (as discussed above).

8.2 Seqwater's response

8.2.1 Cost of debt

Given the magnitude of the Price Path Debt, differences between our forecast and actual cost of debt could have a material and adverse impact on our financial position. We also have no certainty as to the terms of future Referral Notices. It is therefore very important to us to retain this mechanism, at least until the Price Path Debt is repaid (noting that the regulatory framework that will apply to us beyond that is not known).

We therefore request that this Review Event is retained.

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[52] Queensland Competition Authority (2021). p.111.

8.2.2 Feedwater quality

We are proposing to accept the QCA's additional allowance for feedwater quality events. However, as described in section 5.4.3, the actual costs that have been used as the basis for this allowance only reflect additional chemical dosing at Mt Crosby's East Bank WTP and West Bank WTP to maintain treated water quality specifications. These costs also have a greater degree of certainty and predictability.

We remain exposed to the risk that we could still incur significant costs in responding to events that have a high degree of uncertainty (and/or have a comparatively low probability of occurring). These costs are not reflected in that allowance. The QCA has assumed that these other events are more likely to be able to be recovered via the emergency review event (e.g. if the feedwater quality issue arises from a major flood). However, this will not necessarily cover in all circumstances, for example if we have to operate the Tugun Desalination WTP for an extended period due to a feedwater quality issue or where there is a feedwater contamination event (which may or may not be seen to cover the definition of 'emergency').

It is therefore important for us to retain a Review Event for feedwater quality to provide us with an opportunity to recover any prudent and efficient costs we incur in responding to other events. This should also continue to allow for a within-period adjustment for material events.

The previous Review Event also allowed for the recovery of foregone revenue caused by a feedwater quality event. We agree that to date, revenue impacts have been addressed through the end-of period true-up mechanism. While we have no certainty that an end-of-period revenue true-up will be contained in the next Referral Notice, or any subsequent Referral Notices, we are prepared to accept this.

Having regard to the QCA's proposed wording of the other Review Events, our proposed drafting for the feedwater quality Review Event is:

> "A change in prudent and efficient costs caused by a feedwater quality event, excluding revenue already recovered from the feedwater quality allowance..."

In making a claim under this Review Event, the onus will remain on us to demonstrate that any costs incurred are prudent and efficient and have not otherwise been compensated by the proposed allowance.

8.2.3 Drought Review event

As discussed in Chapter 6, we consider it important to adopt a broader definition of 'drought response', having regard to the definition in the 2021 *Water Security Program Guidelines South-East Queensland*.

We have provided additional material and evidence to show that the definition needs to allow for the prudent and efficient costs incurred in preparing for, and proactively managing, drought at both the drought readiness and (formal) drought response stages. This would also align with the definition of 'drought response' in the Regulator's 2021 *Water Security Program Guidelines South-East Queensland*, noting that the QCA's proposed wording refers to "drought response measures in accordance with the Water Security Program".[53]

To the extent that the QCA approves our proposed step change associated with the operation of the Luggage Point WTP, this will allow us to recover some of our costs associated with drought readiness activities. Any revenue recovered for these costs would be excluded from the Review Event claim. This would similarly be the case if a drought allowance is approved by the Minister for application during the regulatory period.

On this basis we propose the following wording:

> "A change in prudent and efficient costs incurred by Seqwater in preparing for and proactively managing drought in accordance with the Water Security Program, consistent with the current definition of a 'drought response action' as contained in the Regulator's 2021 *Water Security Program Guidelines South-East Queensland*, but excluding:

[53] Queensland Competition Authority (2021). p.111.

- revenue recovered for costs already reflected in the approved operating and capital expenditure forecasts; and
- any revenue recovered during the period through a drought allowance."

We agree with the QCA that a within-period adjustment is unnecessary under this mechanism if a drought allowance is also approved by the Minister, although we do not have certainty as to whether this will occur.

8.2.4 Other

In relation to the remaining matters:

- We agree with the QCA's other proposed amendments, including making it clear that we must satisfy the QCA that any costs sought for recovery under a Review Event claim must be prudent and efficient.
- While the QCA has not clarified its intent in relation to the provision it previously approved for the automatic adjustments to prices arising from unambiguous changes in law or government policy, in practice, we are highly unlikely to rely on this provision. This is because any changes in bulk water prices must be approved by the Minister.
- In terms of the QCA's omission of the Review Event relating to "the impact of unexpected changes to water demand or supply which causes a change in revenue or prudent and efficient costs":
  - We agree that to date, revenue impacts have been addressed through the end-of period true-up mechanism. While we have no certainty that an end-of-period revenue true-up will be contained in the next Referral Notice, or any subsequent Referral Notices, we are prepared to accept this.
  - Where such unexpected changes cause changes in costs, we accept that these should be largely covered by the other Review Event mechanisms, unless they are removed by the QCA. Subject to that caveat, we are therefore prepared to accept the removal of this mechanism.
- We are also prepared to accept the removal of foregone revenue from the relevant Review Event mechanisms for the 2023-26 regulatory period, even though we have no certainty as to our ongoing ability to apply an end-of-period true-up.

8.3 Seqwater's updated proposal

To summarise, our proposed list of Review Events for the 2023-26 regulatory period is as follows.

1. A change in prudent and efficient costs caused by a feedwater quality event, excluding revenue already recovered from the feedwater quality allowance:
   a) material change be eligible for a mid-price path review.
   b) where not subject to a mid-price path review, the change be recouped by an end-of-period adjustment.
2. A change in prudent and efficient costs incurred by Seqwater in preparing for and proactively managing drought in accordance with the Water Security Program, consistent with the current definition of a 'drought response action' as contained in the Regulator's 2021 *Water Security Program Guidelines South-East Queensland*, but excluding:
   a) revenue recovered for costs already reflected in the approved operating and capital expenditure forecasts; and
   b) any revenue recovered during the period through a drought allowance.
3. A change in prudent and efficient costs caused by an emergency event (such as a flood or cyclone), but only if Seqwater is not at fault:
   a) material change be eligible for a mid-price path review.

b) where not subject to a mid-price path review, the change be recouped by an end-of-period adjustment.

4. A change in prudent and efficient costs caused by a change in law or government policy.
   a) material change be eligible for a mid-price path review.
   b) where not subject to a mid-price path review, the change be recouped by an end-of-period adjustment.
5. An adjustment for the difference between Seqwater's forecast and actual cost of debt, as advised by QTC.

9 Other matters

In our June 2021 Submission we proposed a number of matters that the QCA considers is outside of scope. Overall, we accept the QCA's draft position. We comment briefly on these below.

9.1 End of period adjustments

We are exposed to a number of sources of revenue risk, including, but not limited to, demand risk, that are exacerbated by our (unique) fully volumetric tariff structure. This can have a material and adverse impact on our financial sustainability, as well as our ability to repay the Price Path Debt (noting that this would still be a significant issue for us even in the absence of the Price Path Debt). To date, this has been addressed by end of period true-up as directed by the Minister in the Referral Notice. However, we have no certainty as to the content of future Referral Notices.

The QCA considered this matter outside of scope as it has only been asked to examine future Review Events. We accept the QCA's position on this matter, recognising that we will continue to bear this uncertainty in the next regulatory period. This also underscores the importance of ensuring that our approved bulk water prices provide us with the opportunity to fully recover our prudent and efficient costs, including in proactively preparing for, and managing the impacts of, drought.

9.2 Prudent discounts

Our June 2021 Submission highlighted the (very limited) circumstances under which it might be efficient to offer a discount to a large water user who may otherwise look to bypass the network (and thereby increasing the revenue to be recovered from remaining customers). We had proposed the QCA consider a set of criteria we would look to apply in these circumstances, which would also provide more certainty in negotiating a potential discount prior to seeking approval from the Minister.

The QCA considers this matter outside of scope. While it does see potential merit in such a framework[54], it has not been specifically asked by Government to review it. We will therefore continue to assess these on a case by case basis as and when they arise in consultation with the relevant Retailer Customer.

9.3 Concealed leaks remissions

We requested the QCA to make a recommendation to the Minister to ensure that the Price Direction Notice allows us to provide a discount for concealed leaks in accordance with the concealed leaks remission policy, with the foregone revenue to be recovered via bulk water charges. This would allow us to align with any discounts provided by our Retailer Customers.

The QCA considers this to be outside the scope of its review, further stating that "the referral notice only provides scope for the recovery of foregone revenue if a discounted price has been approved by government."[55]

The QCA also did make some comments regarding the appropriateness of the policy, including whether it would reduce the incentives for customers to avoid leaks, as well as questioning whether this is the most appropriate means of addressing hardship. In the first instance, this policy is specifically targeted at addressing circumstances where the end customer would not have reasonably be aware of the leak or be able to take timely actions to address it.

[54] Queensland Competition Authority (2021). p.113.
[55] Queensland Competition Authority (2021). p.114.

We remain supportive of a concealed leaks policy and we are ready to work with Government and our Retailer Customers if and when such an initiative is being considered as part of the Government's water pricing framework.