Attachment 2

Capital expenditure

December 2022

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2.1 Introduction

This attachment sets out Icon Water's response to the Independent Competition and Regulatory Commission's (the Commission's) assessment of Icon Water's capital expenditure (capex) program delivered over the 2018–23 regulatory period, and the investment program planned for the 2023–28 regulatory period, in their Draft Decision of October 2022.

As part of our response, we have updated our capital investment program for the next five years. We have also identified opportunities to provide further information to support cost estimates assessed by the Commission and its expenditure consultants Marsden Jacobs Associates (MJA).

Our revised capital investment plan for the 2023–28 regulatory period is necessary so we can renew and expand the critical infrastructure required to provide water and wastewater services to the region.

Box 2-1: Key points

- Icon Water's revised gross capex over the 2023–28 regulatory period is $717.4 million, or $689.1 million net of capital contributions, including $206.8 million for investment in water services assets and $482.2 million for wastewater service assets. This includes a $97.3 million investment in non-system assets.[1] Our forecast is 2.1 per cent lower than the forecast submitted to the Commission in June 2022, with the decrease mostly being driven by the decision to defer and reprofile some expenditure, as well as the shift in accounting treatment for some ICT projects from operating expenditure (opex) to capex.
- Actual prudent capex investment in water and wastewater assets during the 2018–23 regulatory period will amount to $516.5 million ($2022–23), including $212.0 million for water services and $304.6 million for wastewater services. This estimate is 6.1 per cent higher than our estimate submitted in June 2022.[2] We updated our estimate for 2022–23 which produced a slightly higher overall estimate and added the cost of capitalised leases that were omitted from our proposal. We have also provided further information to the Commission to support the prudency and efficiency of projects undertaken during the 2018–23 regulatory period.
- We provide our response to matters raised in the Commission's Draft Decision, including:
  - Reprofiling of our capital investment plan based on a recommendation from MJA. We have considered the likely delivery frameworks given updated information and reflected reprofiling for some projects.
  - Applying a 2.3 per cent adjustment to projects not individually assessed as part of the expenditure review. We consider this position to be inconsistent with the Commission's previous assessment of the incentives Icon Water faces and produces a forecast that does not reflect efficient costs.
  - The expenditure review assessment of individual projects undertaken by MJA and accepted by the Commission. We have provided further information to support higher estimates for some projects.
- We have also provided further information to demonstrate how we intend to deliver our capital investment program over the next five years. Our 2023–28 capital investment program is similar in magnitude to the program we have delivered over 2018–23, except for the addition of significant projects at the Lower Molonglo Water Quality Control Centre (LMWQCC). We have already undertaken work to commence planning for these significant projects.

[1] Our forecast investment in non-system assets is lower than our June 2022 regulatory submission. This is largely driven by projects moving from opex to capex as part of our ICT investment (SaaS) step change.

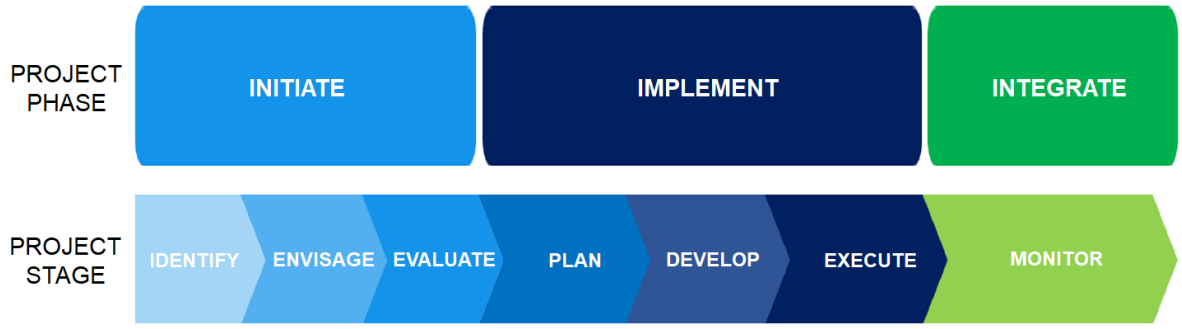
[2] The increase is also being driven by updated inflation estimates used to present the nominal forecast in real terms.

2.2 Response to the Commission's Draft Decision on portfolio adjustments

The Commission engaged MJA to assess the prudency and efficiency of our capital investment program for the 2023–28 regulatory period. MJA raised concerns with the maturity of projects and programs that we included in our regulatory proposal.[3]

MJA noted that approximately 68 per cent of projects in our forecast were in the evaluate stage in our Investment Planning and Delivery (IPaD) process (see Figure 2-1).

Figure 2-1: Icon Water's Investment Planning and Delivery (IPaD) process



Source: Icon Water.

While this was true at the time of our proposal, it masks the underlying maturity of our capital investment forecast. Our regulatory proposal submitted in June 2022 included:

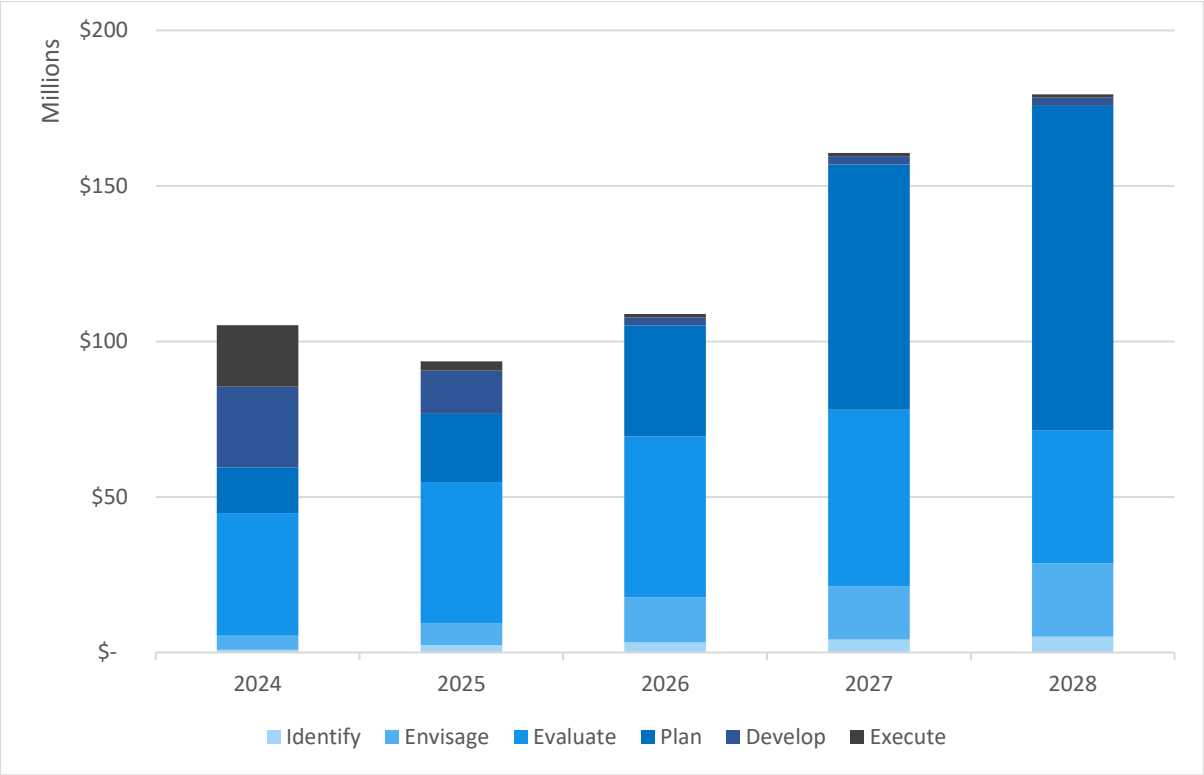
- Seven per cent (12 projects) that had reached the 'implement' phase of development with work occurring prior to the 2023–28 regulatory period.
- 35 per cent (two large projects at LMWQCC) with business cases in development, which are now available. These two projects distort the overall maturity assessment.
- 28 per cent of projects that had not yet reached the 'implement' phase, but which represent ongoing programs of work that require less intensive planning to deliver, and where we have high confidence in the forecast.
- 20 per cent of projects in the 'identify' stage which are reflective of work expected to commence in the current and 2023–28 regulatory periods, which are included in the asset management plans.

The assessment also underestimates the speed in which projects and programs can progress through the IPaD process; to date, several projects have reached key milestones since the original proposal was submitted. Our revised capital investment forecast reflects this updated maturity.

Our revised capital investment forecast includes approximately 51 per cent of projects having reached at least the 'plan' stage (see Figure 2-2 and Figure 2-3). We consider the maturity of our forecast reflects a reasonable balance between efficiently planning for the next five years and providing cost certainty to the Commission and our customers. We provide more information on our asset management and governance framework in section 2.2.3.

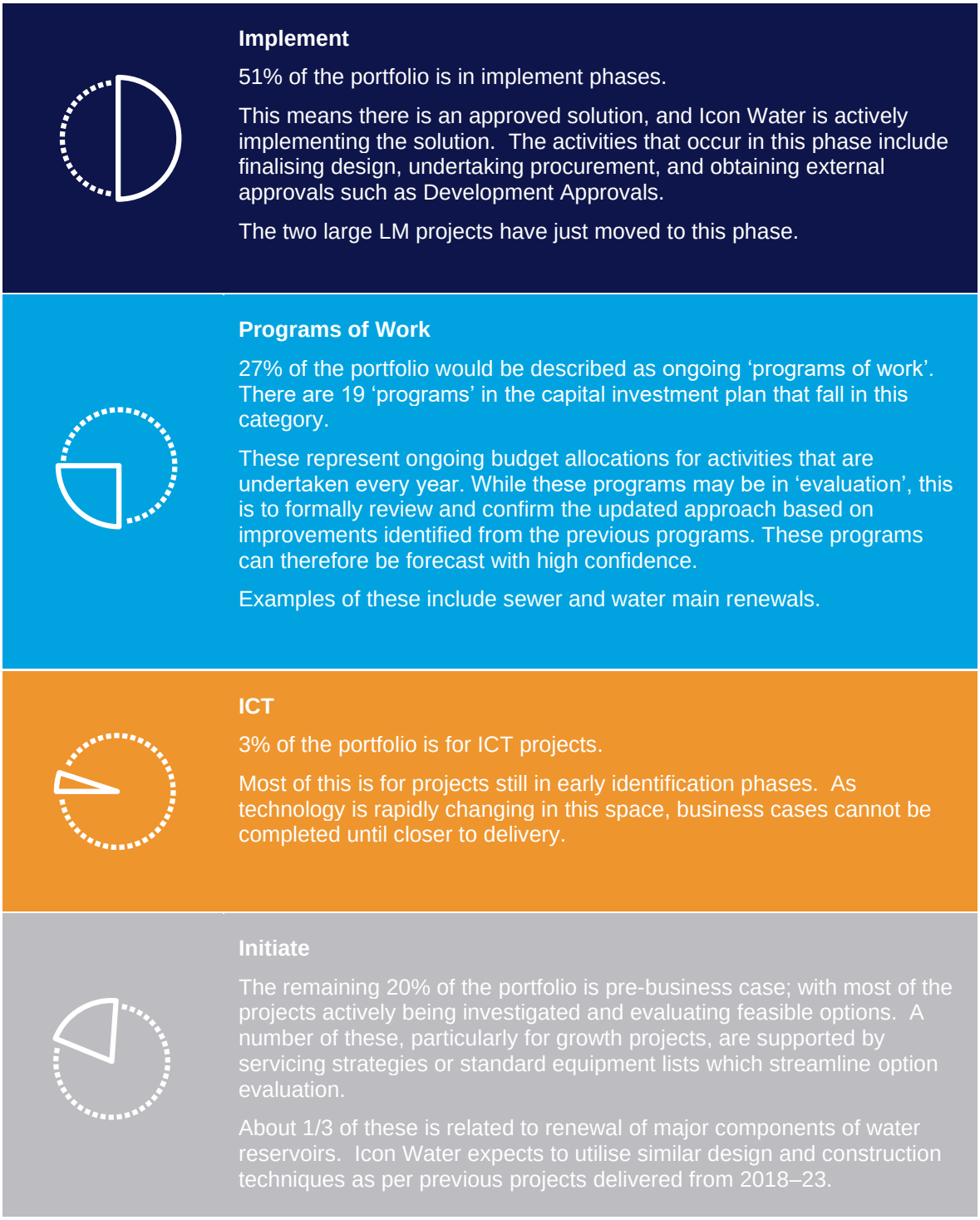
[3] ICRC, *Draft Report, Regulated water and sewerage services 2023–28*, October 2022, p. 49

Figure 2-2: Icon Water's revised capex forecast by IPaD stage gate ($millions, $2022–23)



Source: Icon Water.

Figure 2-3: Icon Water's Revised Investment Portfolio



Source: Icon Water.

2.2.1 The Commission made a Draft Decision to reprofile our capital investment forecast

The Commission noted its concern with our capacity to deliver our capex program and accepted MJA's recommendation to reprofile 39 per cent of the program, representing projects not individually assessed as part of its expenditure review, to reflect a simplistic view of deliverability.[4]

Our high-level response is that:

- Our revised forecast includes approximately 51 per cent of projects having reached the implement phase in our IPaD process. About half of the remaining forecast reflects ongoing programs of work in areas of our core business, which do not require the same level of investigation or additional forward planning to deliver. Refer to Figure 2-3.
- Eight per cent of projects represent IT projects or corporate initiatives which require smaller planning processes and lead times to deliver. Applying a high-level and simplistic reprofiling of our forecast based on IPaD stage gate does not reflect the true and likely delivery timeframe.
- The reprofiling does not reflect a prudency adjustment because it does not consider the optimum delivery timing we need to achieve to provide value to our customers.
- We will deliver our forecast capital investment plan and have already commenced market sounding activities with the intention to propose an updated delivery model by the end of 2022–23 and engage delivery partners for 2023 and beyond.
- Our revised forecast, outlined in section 2.3, takes into consideration the Commission's view and we have undertaken a comprehensive analysis of all project delivery assumptions to ensure we can deliver the program over the next five years.

We provide additional information in the following sections to further explain and clarify our planning processes and the maturity of our forecast.

2.2.2 The Commission made a Draft Decision to apply an efficiency adjustment

The Commission made a Draft Decision to apply an efficiency adjustment to projects not individually assessed by MJA as part of its expenditure review – representing approximately 39 per cent of our capital investment forecast for the 2023–28 regulatory period.

The Commission arrived at 2.3 per cent because it represents the same amount of total adjustment to the top 10 projects recommended by MJA as part of the expenditure review.

Our high-level response is that:

- Our IPaD process, which the Commission has found prudent and efficient, produces reasonable cost estimates across the planning and delivery process. Our internal estimates suggest, if anything, our process on average slightly underestimates future delivery requirements and costs. We undertake regular and iterative reviews to better understand and improve our processes over time.
- The Commission's position is inconsistent with the findings of its 2020 review of the incentive mechanisms applying to the regulation of Icon Water, where it found its current approach of a two-stage prudency and efficiency assessment of Icon Water's proposed capital expenditure performs well against the Commission's assessment criteria.[5] We provide further information to support this position in section 2.2.5.

[4] ICRC, *Draft Report, Regulated water and sewerage services 2023–28*, October 2022, p. 55

[5] ICRC, *Water and Sewerage Services Price Regulation: Incentive Mechanisms*, August 2020, p. 29

- The adjustment of 2.3 per cent does not arrive at the actual prudent and efficient costs of the top 10 projects, with our revised proposal providing compelling evidence to support revised cost estimates.
- The Commission's two-stage prudency and efficiency assessment should reflect the likely and assessed costs of our capital investment program. The adjustment does not provide a true incentive to find efficiencies because it is not symmetrical and does not enhance the existing suite of incentives faced by Icon Water.

The following sections expand on the positions summarised in this section.

2.2.3 Icon Water's asset management and governance framework is efficient

We have a developed Asset Management Framework as described in our *Strategic Asset Management Plan* and Attachment 5 of the original proposal. The key artefacts are updated regularly and show the long-term (20 year +) forecast and assumptions that underpin our planning. These plans are available to the technical and economic regulators, although not all plans are shared publicly to minimise probity issues.

The Commission's position on future expenditure is summarised in its draft report, where it recognises the 'fluid' nature of longer-term portfolio forecasts and allows Icon Water to adjust the actual projects undertaken during the regulatory period.

> We do not determine which projects Icon Water should or should not undertake. This approach recognises the fluid nature of capital programs, and that Icon Water may need to re-prioritise its capital expenditure program in response to new circumstances over the course of the regulatory period. For example, Icon Water may need to undertake projects that it did not anticipate during the time of our investigation. Also, Icon Water may not need to complete some of the projects it proposed if circumstances change.[6]

<u>The timing of business cases needs to balance competing factors</u>

Our Asset Management Framework includes mature and comprehensive guidance of investment planning and project delivery. The programming of business cases is assessed by the portfolio prioritisation team, which considers the feasibility, complexity, priority and strategic alignment of each project or program. The timing of business cases needs to balance a number of competing factors. Business cases need to be developed with sufficient time ahead of the required delivery to allow for project planning and overall business budgeting.

However, they cannot be developed too far in advance otherwise assumptions and analysis become outdated. Movements in costs, technical regulations and technological development may change the preferred option if a business case is completed too far ahead of the required delivery timing. This requires an individual assessment of the requisite timing for each business case rather than applying over-simplified rules.

MJA expressed a preference, which appears to be endorsed by the Commission, that most projects and programs in our portfolio forecast have a business case.[7] In practice, this would mean that business cases approving technical solutions would need to be developed up to six years prior to actual implementation. If this was to occur, it would lead to rework as analysis and design needs to be redone closer to implementation to reflect changes in technology, regulations and cost. Icon Water would like to work constructively with the Commission to better understand a workable solution that balances

[6] ICRC, *Draft Report, Regulated water and sewerage services 2023–28*, October 2022, p. 44

[7] MJA, *Icon Water 2023–28 expenditure review – Final Report, 12 October 2022*, p. 10

efficiency by minimising cost with providing certainty to the Commission when it assesses our program forecasts for our next regulatory submission.

We have taken measures to ensure that the early forecasts – pre-business case – are still reliable at a portfolio level for the purposes for establishing customer prices. Projects and programs which have a material impact on the portfolio (total project cost over $5 million) have had independent estimates produced by a third-party estimator or have been developed using an equivalent recent project we have delivered. This estimate is based on the typical industry solution for the scale of problem.

In addition, our estimates are normally supported by an early strategic or feasibility study, which will eliminate operational controls as a long-term solution. This typically gives reliable estimates, as outlined in the case study in Box 2-2. We consider that for the purposes of an ex-ante review of expenditure, using a lower bound estimate is sufficiently reliable to estimate the amount to recover through customer prices.

Box 2-2: Fyshwick Sewage Pumping Station – case study

To support our 2018–23 regulatory submission, Icon Water engaged WT Partnership to prepare capital cost estimates for projects funded through the Water and Sewerage Capital Contribution (WSCC) Code. Upgrading the capacity of Fyshwick Sewage Pumping Station was one of these projects. Our project estimates were updated over time in line with our IPaD process, and produced the following estimates:

- A P50 estimate prepared in 2017 indicated that the project's cost to provide additional capacity at the site was $16.3 million ($2021).
- In April 2021 a concept design statement for a standard industry solution was approved by our Investment Review Committee (IRC) based on these estimates.
- In December 2022 a business case for the preferred solution was presented to our IRC. This business case was based on a concept design of the preferred solution with capital cost estimates of $16.25 million.

In this example the business case estimate was within one per cent of the initial P50 estimate produced in 2017.

Source: Icon Water.

The reliability of our forecast needs to be considered at a portfolio rather than an individual project level. Uncertainty, represented by project contingency, generally has an offsetting effect between projects. The largest source of uncertainty in the portfolio is establishing the need for the project and a capital solution. MJA's assessment of the top 10 projects showed that for all projects Icon Water established a clear need for the project, irrespective of the project stage.

We used guidance from the Essential Services Commission (ESC) to inform how we incorporated uncertain projects in our regulatory submission. The ESC's guidance suggests opportunities for water utilities to balance financing risk, while minimising speculative capital expenditure being passed on to customers before it is incurred. The ESC's guidance notes:

1. Include sufficient expenditure to cover only the development costs of the project, with efficient actual construction costs incurred during the period to be rolled into the RAB at the end of the period, along with any accumulated interest. This provides sufficient revenue allowance for the project to proceed during the next regulatory period, with cost recovery to commence in the following regulatory period at no net loss to the business.

2. Include development costs and a notional allowance for construction, with the balance of efficient construction costs (plus associated interest if required) to be rolled into the

RAB at the end of the period. This allows a reasonable portion of the project, based on the various options and cost estimates at the time of preparing the price submission, to be included in prices.

3. Identify the project as a possible 'uncertain or unforeseen event' to be addressed via the mechanisms outlined in Section 3.20 during the regulatory period.[8]

Icon Water has applied a combination of these approaches to many of the projects in our portfolio, noting that these choices mean the projects may not have been fully funded in our 2023–28 regulatory submission.

For a small number of projects in the 'identify' and 'initiate' phases, including the Googong Water Treatment Plant (GWTP) water quality upgrade and Bendora Dam Strengthening works, only sufficient expenditure to cover development costs (i.e. business case and design) were included. This means that only about 15 per cent of the total project costs were included in our regulatory submission, which will support the development of business cases in the following regulatory period. The remaining expenditure for this project will be assessed by the Commission and rolled into our regulatory asset base (RAB) in the next regulatory period.

Another subset of projects only included development costs and a notional allowance for construction. In particular, this was applied to the large projects at LMWQCC (bioreactors and biosolids), as well as the sewer and water mains replacement projects. For the remainder of the program in evaluate stage, only 66 per cent of the total project costs were included in the portfolio which represents the notional allowance for construction of the lower bound option we have identified.

While not explicitly covered in the proposal, there were several projects that were identified by Icon Water but not included in the portfolio forecast for 2023–28 as the timing and need were not sufficiently clear. This includes upgrades to the Stromlo Water Treatment Plant (SWTP) to increase capability to treat for algae blooms with deteriorating water quality in the Cotter catchment, plus any capital upgrades required for water security or drought response and potential green house gas (GHG) offsets or capture to meet the ACT Government net-zero targets.

2.2.4 The Commission made a Draft Decision to reprofile our capital investment forecast

The Commission's Draft Decision accepted MJA's recommendation to reprofile 39 per cent of our capital investment forecast because of concerns about deliverability.

We consider MJA's assessment is simplistic and a generalisation of how quickly projects move through the investment planning and delivery cycle. Further, their approach does not recognise delivery complexity or consider the prudent delivery timing needed to maximise benefits for our customers.

We have considered feedback from the Commission and MJA regarding deliverability. Our revised forecast reflects some reprofiling after careful consideration of the likely delivery of key projects.

Icon Water will continue to deliver programs that our community values

Our asset management approach aims to balance prudency and efficiency. We undertake detailed planning and assessment of projects to ensure we balance technical requirements with the need to provide cost certainty to our customers. Projects are timed and sequenced to minimise disruption to customers, and to extract the maximum return over the technical life of an asset.

[8] Essential Services Commission, *2023 Water price review: Guidance Paper*, 26 October 2021

We developed out capital investment plan consistent with the process described in section 2.2.1, which is consistent with these principles.

Our planning process is designed to enable prudent and efficient investment practices and deliver value to customers. If we delivered our program as suggested by MJA it would increase costs for customers. Therefore, we consider the recommendation is neither prudent nor efficient and undermines Icon Water's planning and management of assets.

Investments in non-system assets do not require the same level of options assessment, planning and delivery complexity or timelines as major engineering projects

The individual projects in our investment program have differing levels of complexity which contributes to how they are delivered and the risk that project delays will occur. For example, ICT project teams can be stood up to deliver critical projects in short timeframes to meet business needs. Other projects represent ongoing programs of work that are our core business and are delivered in a uniform and predictable way.

MJA's assessment does not consider this nuance and they have reprofiled projects based only on their status within our IPaD process.

MJA's reprofiling recommendation is arbitrary and does not reflect prudent delivery timing

MJA's recommended approach does not recognise delivery complexity or the maturity of our forecast. As this is a program for the next five years, naturally we have some projects which are ready to go now, and other projects that won't start for another four years and are therefore earlier in the planning cycle. In applying the reprofiling, MJA has assumed that all projects have the same planning and delivery timeframe with the same expenditure profile.

In reality, projects and programs have particular "deadlines" for completion. For example, some projects need to be in place before specific property development occurs, or to support decommission of an ICT platform. Icon Water's original timing of project completion reflected these dates. In addition, projects and programs will move through planning and delivery in their own timeframe, depending on the complexity of options assessment and delivery. Some problems have common and simple solutions and require limited design and reconfiguration; other projects require more substantial options assessment, coordination, and configuration in design. The reprofiling undertaken by MJA does not reflect this.

The reprofiling is also inconsistent with the findings from the top 10 projects reviewed by MJA. MJA reviewed several programs of work (sewer mains, water mains, and water meters) and did not recommend a reprofiling of the expenditure. However, they did then reprofile programs of work, or annual allocations which were not in the top 10. MJA also reviewed projects in 'identify' phase and did not recommend reprofiling of expenditure for these projects, yet then reprofiled expenditure on all projects in 'initiate' phase to only include ~75 per cent of what was in the original proposal for the 2023–28 regulatory period.

The reprofiling does not recognise that many of the project forecasts may extend across regulatory periods. This is particularly the case for projects planned to commence towards the end of the 2023–28 regulatory period, where only the costs of undertaking options assessment and design are included in the forecast, and the delivery costs are beyond 2028.

Icon Water will deliver its proposed capital investment program forecast

We regularly assess our ability to deliver the forward program and align our delivery structure and methods accordingly. We have recognised that the total program proposed in the 2023–28 regulatory period is an increase on the 2018–23 regulatory period. It contains several major projects, requiring a combination of specialised engineering disciplines, complex technical challenges, and comprehensive

stakeholder management. Due to the scale and complexity of these projects, Icon Water requires additional capacity and capability to supplement its existing project delivery resource base.

An internal corporate project has been created (Project Delta) to undertake an assessment of potential delivery models for all Icon Water engineering related projects. There are multiple options being considered that span the broader asset acquisition process, from strategic asset planning through to asset handover.

At this stage, a market sounding activity is being undertaken with industry peers (other utilities and local governments) and industry providers (engineering and construction firms) to gather information relating to the various delivery models that are available.

This information will inform the development of delivery model options. Options will be assessed for suitability against set criteria that includes value for money, flexibility and scalability, risk and opportunities, and alignment to strategic objectives.

At this stage, Project Delta is targeting a preferred delivery model for these services to be endorsed by the Icon Water Board by the end of 2022–23. Implementation of the preferred delivery model will begin shortly after and is anticipated to result in preferred providers and suppliers being identified and ready by the middle of 2023–24. This is in line with the timeframes for the delivery of the two major projects at Lower Molonglo.

As noted in section 2.2, our capital forecasts for the next 10 years are dominated by two large projects at LMWQCC. We are forecasting a total of over $450 million for these projects across their entire lifecycle, and we have only included a portion of the costs in our 2023–28 regulatory proposal in recognition of risks outside our control that may lead to small delays in project commencement.

The remainder of the program is similar in magnitude and maturity to the 2018–23 program so the existing project delivery resource base and other internal resources have suitable capacity to deliver on the program. Project Delta is likely to identify opportunities to augment delivery capacity across the entirety of the engineering program.

Our revised forecast includes reprofiling to address the Commission's concerns

Our revised forecast considers the Commission's concerns about deliverability and its reprofiling recommendation. We have identified opportunities to accept some reprofiling to further share portfolio delivery risk with our customers. We utilised the same factors as MJA, and applied them to some projects, which has the effect of delaying the recovery of some revenue, with some expected costs associated with early-stage projects moved to the 2028–33 regulatory period. MJA's approach assumes that all projects take longer than six years to go from evaluate stage to completion; and at least six years to go from having a business case to completion.

Our reprofiling exercise differs from that recommended by MJA in the following ways:

1. The percentages have been applied to the current project phase, rather than the project phase that applied when MJA conducted their assessment.
2. We have not reprofiled annual programs of works or budget allocations such as minor capex allocations. This is consistent with MJA's findings on the water and sewer mains renewal programs.
3. In addition, the remaining ICT projects were not reprofiled. The timing assumptions around the reprofiling are not valid for an ICT project as the project lifecycle for these is shorter. These forecasts only include the portion of the project that can be capitalised, which for ICT projects is a smaller subset of activities.
4. The projects that are co-funded through the WSCC have also not been reprofiled, as this reprofiling will introduce inconsistencies with the WSCC funding model, and population forecasts. We have a high degree of confidence in the individual project forecasts, and the aggregate timing of these projects.

Our revised forecast reflects reprofiling that applies to 23 per cent of the remaining portfolio; and has a smaller impact as more projects have moved past initiate phases.[9]

2.2.5 The Commission applied a capex efficiency adjustment to our capex forecast

The Commission made a Draft Decision to apply an efficiency adjustment of 2.3 per cent to projects not individually assessed by MJA as part of its expenditure review – representing approximately 39 per cent of our capital investment forecast for the 2023–28 regulatory period.

The Commission did not accept MJA's recommendations to apply catch-up or ongoing efficiency adjustments to all capital expenditure in our forecast. We agree with this position, which is consistent with the Commission's findings in previous reviews where it did not apply broad efficiency adjustments, and instead adopted project specific efficiency adjustments.[10]

The Commission notes for its Draft Decision it arrived at the 2.3 per cent efficiency adjustment because it represents the aggregate adjustments identified in assessing the top 10 projects.[11]

We disagree with the Commission's Draft Decision. Icon Water has a proven track record of responding to incentives to find cost efficiencies in our capital expenditure program and to undertake investment decisions in the interests of our customers.

As a public utility we experience regulatory and public interest in our investment decisions. Our commitment to public transparency further strengthens our incentives to invest prudently and efficiently in community assets. Further, as a Territory owned corporation, we are incentivised by legislative objectives and parliamentary oversight.

<u>The Commission's position on efficiency adjustments is inconsistent with the findings of its review of incentive mechanisms</u>

In 2020 the Commission undertook a review of the incentive mechanisms that apply to water and sewerage service price regulation in the ACT. The review looked at expenditure incentive mechanisms, including the suite of incentives that Icon Water faces across its forecast capital expenditure.

The Commission found:

> For capital expenditure, the Commission conclude that its current approach of a two-stage (ex-ante and ex-post) prudency and efficiency assessment of Icon Water's proposed capital expenditure performs well against the Commission's assessment criteria. The Commission found evidence that the approach had been effective in giving Icon Water incentives to find cost efficiencies in its capital expenditure program and to undertake investment decisions after good planning that considers consumers' long-term interests in the quality, safety, reliability, and security of regulated services.[12]

[9] The next ex-post expenditure review can only compare actual and forecast expenditure over 5-years and not over each year of the regulatory period due to the misalignment of revenue recovery (reflected in the re-profiled expenditure) and our expected delivery timeframes

[10] ICRC, *Draft Report, Regulated water and sewerage services 2028–23*, October 2022, p. 69

[11] ICRC, *Draft Report, Regulated water and sewerage services 2028–23,* October 2022, p. 56

[12] ICRC, *Water and Sewerage Services Price Regulation: Incentive Mechanisms*, August 2020, p. 29

The Commission also found:

> Further, as a well-established and widely adopted approach, the Commission's two-stage prudency and efficiency assessment approach for capital expenditure is straightforward and cost effective for the Commission and Icon Water to implement. It is also well understood by stakeholders and transparent in how it is implemented.[13]

Despite this review being undertaken only two years ago, the Commission has deviated from the positions established in its stand-alone review of incentive mechanisms. We also note the inconsistency with other sections of the draft report that suggest no changes to incentive mechanisms:

> Our draft decision had been to continue the range of control mechanisms and incentive mechanisms that applied for the current period.[14]

We seek clarification why this additional incentive is required, when the Commission's recent review found the current arrangement were sufficient. If the Commission's views have changed since 2020, we consider the best course of action is to undertake another stand-alone review as a reset principle to further explore the incentives Icon Water faces.

<u>The Commission has found our IPaD process produces efficient cost estimates</u>

The Commission's 2.3 per cent efficiency adjustment was applied to projects that were not individually assessed as part of MJA's expenditure review. The Commission's position suggests our IPaD process does not produce efficient estimates of likely project costs, despite finding our IPaD process aligns with good industry practice:

> Icon Water prepared documentation as per the IPaD process and timelines. The IPaD process is designed to achieve consistent decision-making, identify and manage risks, ensure efficient project delivery and control the progressive release of funding based on stage-by-stage justification. This process aligns with good industry practice.[15]

We provide further information on our process in Attachment 5 of our regulatory submission:

> Icon Water's Investment Planning and Delivery (IPaD) Guide describes the processes for the initiation and approval of all significant investment projects. These governance processes ensure that only projects that are efficient, prudent, and benefit the community and stakeholders are approved. Our IPaD process was acknowledged by other water utilities during previous WSAA asset management benchmarking as an example of leading practice.[16]

The IPaD process ensures that consistent governance and decision-making criteria are applied to all projects and programs, as they move from problem and opportunity identification, through to solution assessment, and solution delivery and integration. Each stage gate consists of rigorous review before

[13] ICRC, *Water and Sewerage Services Price Regulation: Incentive Mechanisms*, August 2020, p. 29

[14] ICRC, *Water and Sewerage Services Price Regulation: Incentive Mechanisms*, August 2020, p. xii

[15] ICRC, *Draft Report, Regulated water and sewerage services 2028–23*, October 2022, p.73

[16] Icon Water, *Price Proposal - Attachment 5, Asset Management Governance*, 30 June 2022, p. 21

submission for endorsement to ensure appropriate contingency allocation and that options considered are based on the most likely cost estimates.

Our internal analysis suggests this process produces slightly lower cost estimates during the early phases compared to the final actual cost. We consider this is likely due to estimates in early project stages reflecting typical industry solutions, rather than risk adjusted estimates for solutions potentially providing additional long term customer value and resolving secondary issues.

We face a constant incentive to find efficiencies during implementation without the adjustment applied by the Commission. This is supported by our procurement processes, which are designed to select suppliers that balance cost and quality outcomes for our customers.

We undertake regular and iterative reviews to better understand and improve our processes over time.

Our revised forecast and additional evidence support no efficiency adjustment

In responding to the Commission's draft report, we have undertaken a comprehensive reassessment of our capital investment forecast. We have considered the Commission's findings and sought opportunities to reflect them in our updated forecast.

Our assessment has produced higher cost estimates for some projects evaluated as part of MJA's expenditure review of the top 10 projects. We have provided additional information to support higher estimates for these projects.

Reassessing the basis for the efficiency adjustment may suggest a different estimate given this additional information. Further, using the 2.3 per cent identified in the top 10 projects as the basis to calculate the efficiency adjustment is flawed, because two of the projects only reflect partial estimates, because we decided to defer some forecast expenditure for projects at LMWQCC to reduce customer prices. If the percentage reduction is recalculated using our revised cost estimates for the top 10 projects, and considering the total cost of the two LMWQCC projects, then the true adjustment for the top 10 projects is less than 0.5 per cent. However, we still consider the adjustment should not be applied because it is arbitrary and will not lead to a more efficient outcome for consumers.

The Commission's two-stage prudency and efficiency assessment should reflect the likely and assessed costs of our capital investment program

The costs in our forecast should reflect the likely and assessed costs we will face over the next regulatory period. The terms of reference state:

> …minimising the potential for significant price fluctuations during the regulatory period, while ensuring the recovery of the prudent and efficient costs of Icon Water Limited.[17]

In relation to the proposed efficiency adjustment:

- Applying the adjustment means the Commission is no longer reflecting the prudent and efficient costs of assessed projects. The position put forward by the Commission is inconsistent because they have found our IPaD process produces efficient cost estimates but have still applied an additional reduction on top of these estimates.
- We also note that the efficiency adjustment does not provide an additional incentive for Icon Water to reduce costs. As previously noted, Icon Water already faces a constant incentive to reduce costs and find efficiencies across the regulatory period.

[17] ACT Government, *Independent Competition and Regulatory Commission (Regulated Water and Sewerage Services) Terms of Reference Determination 2021. Disallowable instrument DI2021-278 made under the Independent Competition and Regulatory Commission Act 1997*, 2021

- We have already sought opportunities to reduce the costs that customers face, and the efficiency adjustment applied by the Commission will impact our ability to deliver services to our customers.

2.3 Revised capital forecast

This section sets out our revised capital investment forecast. In responding to the Commission's Draft Decision, we have undertaken a comprehensive reassessment of our capital investment forecast. Our revised forecast reflects:

- updated information to reflect revised forecasts for some projects
- a reprofiling of some expenditure that applies to some of our portfolio
- a reduction for some ICT projects that have been reclassified as operating expenditure
- updated inflation and escalators.

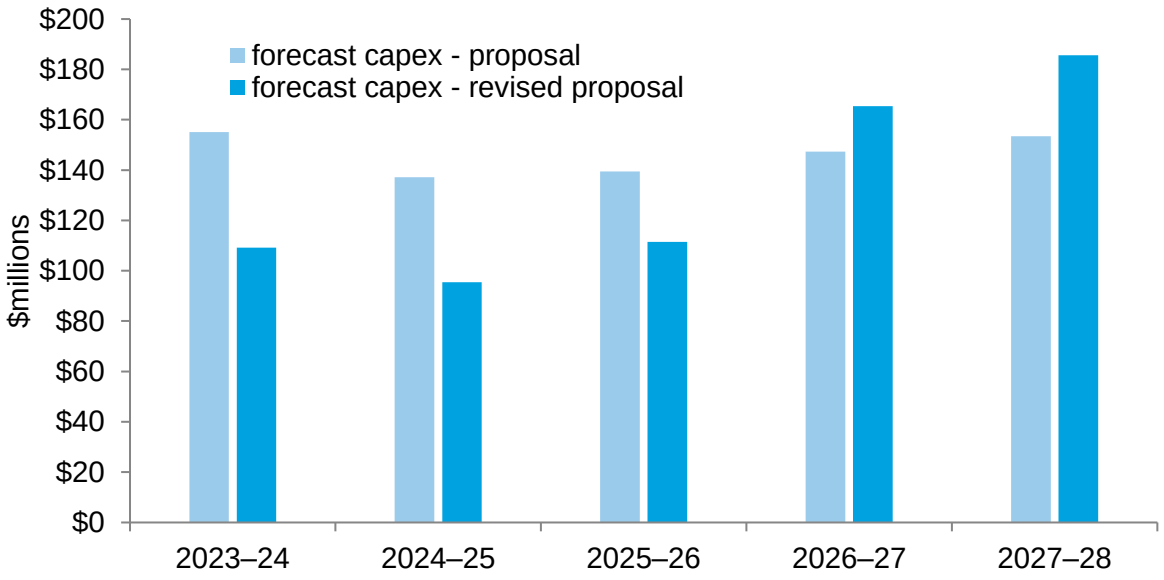
2.3.1 Overview

Icon Water's revised expenditure forecast for our planned capital program over the 2023–28 regulatory period is $717.4 million ($2022–23), or $689.1 million net of capital contributions. Our forecast is 3.4 per cent lower than the forecast submitted to the Commission in June 2022. Our revised forecast includes:

- $206.8 million for investment in water services assets
- $482.2 million for investment in wastewater services assets.

Figure 2-4 compares our forecast gross capex from our revised estimate, with the estimate we submitted to the Commission in June 2022.

Figure 2-4: Comparison of Icon Water's capex forecasts ($millions, $2022–23)



Source: Icon Water.

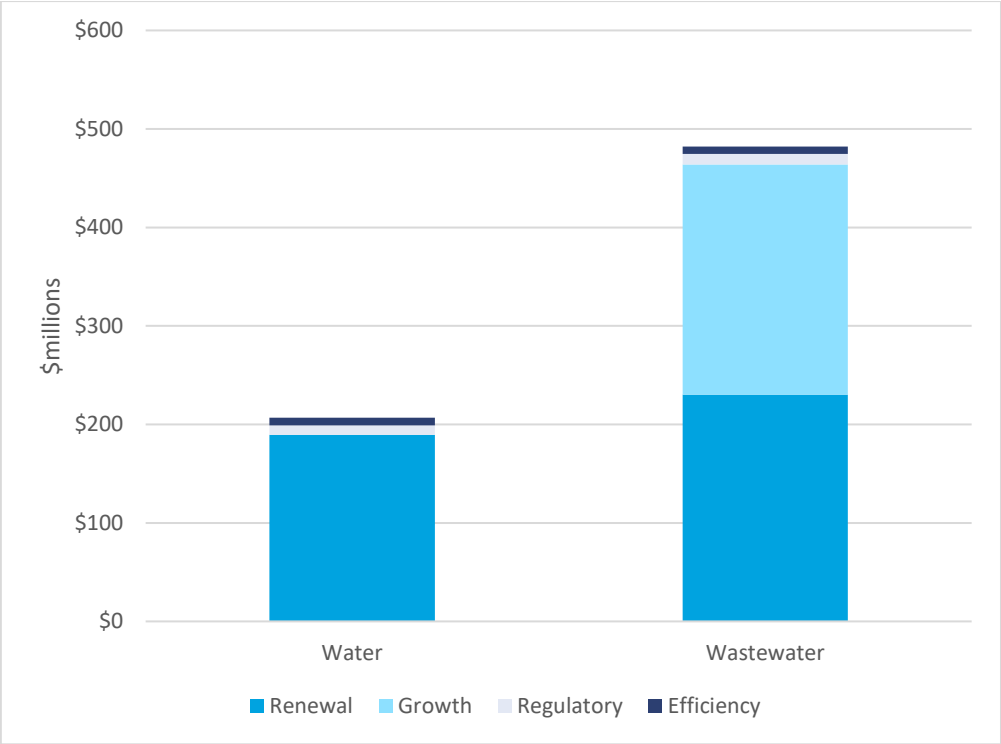
Table 2-1 and Figure 2-5 show a breakdown of our forecast for our revised proposal by driver and split into water and wastewater expenditure.

Table 2-1: Icon Water's 2023–28 forecast capex by driver ($millions, $2022–23)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Water						
Renewal	$50.1	$30.7	$35.7	$39.2	$33.4	$189.1
Growth	$0.0	$0.0	$0.0	$0.1	$0.1	$0.2
Efficiency	$1.0	$1.4	$2.0	$2.5	$2.8	$9.7
Regulatory	$0.6	$1.0	$1.7	$2.3	$2.2	$7.8
Total capex water	$51.8	$33.2	$39.4	$44.0	$38.5	$206.8
Wastewater						
Renewal	$41.2	$37.7	$36.5	$46.1	$68.5	$230.1
Growth	$14.6	$25.9	$36.2	$76.6	$80.4	$233.7
Efficiency	$2.8	$1.3	$1.8	$2.4	$2.5	$10.8
Regulatory	$0.5	$0.8	$1.6	$2.3	$2.5	$7.7
Total net capex, wastewater	$59.0	$65.7	$76.2	$127.4	$153.9	$482.2
Plus capital contributions	$2.0	$7.0	$6.0	$8.1	$5.2	$28.3
Total gross capex, wastewater	$61.1	$72.7	$82.1	$135.5	$159.2	$510.6
Total gross capex	$112.8	$105.9	$121.6	$179.5	$197.6	$717.4
Total net capex	$110.8	$98.9	$115.6	$171.4	$192.4	$689.1

Source: Icon Water. Totals may not sum due to rounding.

Figure 2-5: Forecast capex 2023–28 by driver ($million, 2022–23)



Source: Icon Water.

2.3.2 Updates to projects at LMWQCC

Since our regulatory submission in June 2022, we have finalised business cases with updated cost estimates for two projects at LMWQCC. The Secondary Treatment Bioreactors Capacity Upgrade and Biosolids Management Renewal Project represent significant, intergenerational investments in Canberra's wastewater network. These projects are further described in sections 2.4.1 and 2.4.2.

Business cases for both projects were endorsed by our Investment Review Committee in November 2022 and approved by the Icon Water Board in December 2022. We have since commenced market sounding activities as we seek a suitably qualified delivery partner for these projects.

With refinement of the preferred option, the total project cost of each project and forecast project expenditure prior to 2028 has marginally increased from the information we provided in June 2022. However, we maintain that our original delivery and timing assumptions remain accurate and therefore have kept the total project forecasts for the 2023–28 regulatory period consistent with our original submission.

Deferring some costs is prudent to reduce the prices customers face and share risks with the community. If the total costs of the project differ from our estimate, we intend to update the information in our next regulatory submission in 2027.

2.3.3 Water and Sewerage Capital Contribution Code

Our revised forecast includes 12 growth projects that will be co-funded by developers through the WSCC Code. We estimate approximately $28.3 million will be collected from developers to co-fund these projects (and will therefore not be recovered through regulated water and wastewater prices). Table 2-2 shows our estimate of the portion co-funded by developers.

Table 2-2: WSCC Code developer co-funding ($millions, $2022–23)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
WSCC Code developer contributions	$2.0	$7.0	$6.0	$8.1	$5.2	$28.3

Source: Icon Water.

In our June submission the developer-funded portion of projects identified for co-funding were inadvertently netted off our net capex forecast. This had the effect of underestimating the size of our capex program. However, the total project costs were assessed as part of the expenditure review. Our revised forecast corrects this issue, which appeared only in our regulatory proposal, and has not impacted customer prices.

2.3.4 ICT projects

Our capital investment plan had included $49.5 million (updated to $50.0 million using the latest inflation forecast) in forecast capital expenditure for ICT projects for the 2023–28 regulatory period.

On 8 September 2022, we wrote to the Commission to advise:

> Over the last few months, a number of our ICT vendors advised they are moving to 'cloud based' models, under a subscription service or Software as a Service (SaaS), and will no longer support our existing systems under perpetual licences. For the 2023–28 regulatory period, we are not expecting this change will increase our total expenditure requirement (in fact, it may reduce our expenditure requirement) but we will see a shift in our forecast costs from capital to operating expenditure. As accounting standards dictate how costs are treated under the building block methodology used to calculate Icon Water's total revenue requirement, this shift may cause a short-term impact on customer prices for the 2023–28 regulatory period as we transition from capital to operating expenditure.[18]

Since then, we have reviewed each ICT project scheduled for the 2023–28 regulatory period to ensure we applied the relevant accounting standards. In their Draft Decision, the Commission acknowledged it had received our correspondence. The Commission also acknowledged that the Australian Energy Regulator (AER) had recently considered similar shifts from capital to operating expenditure for regulated energy businesses and suggested that the AER's assessment approach provides useful guidance to Icon Water. The Commission stated that as part of this approach:

> Icon Water should demonstrate that there is no double counting with other expenditure activities, and any cost shift to operating expenditure is accompanied by an appropriate decrease in capital expenditure.[19]

In updating our capital investment plan as part of this submission, we have adjusted the ICT component to ensure no double counting. This is demonstrated in Table 2-3 which outlines movements in our forecast ICT capital investment for the 2023–28 regulatory period.

[18] Icon Water, letter to the Commission *"Regulated Water and Sewerage Services 2023–28: Revisions to Capital Investment Plan"*, 8 September 2022. Available at: https://www.icrc.act.gov.au/

[19] ICRC, *Draft Report, Regulated water and sewerage services 2028–23*, October 2022, p.36

Table 2-3: Movement in ICT capital investment plan for 2023–28 ($millions, 2022–23)

Description	2023–28
Original Capital Investment Plan (2023–28 Price Proposal, June 2022)	50.0
Less, ICT investment shifted from capital to operating expenditure	-25.3[20]
Less, ICT investment removed from 2023–28 plan or deferred into 2028–33	-0.7
Less, ICT investment reduced by reprofiling	-2.9
Plus, inflight ICT investment deferred from 2018–23 to 2023–28	3.0
Updated Capital Investment Plan (Icon Water Submission, December 2022)	24.1

Source: Icon Water. Totals may not sum due to rounding.

Refer to Attachment 1 for further information on the accounting treatment of forecast ICT investments and the impact on 2023–28 operating expenditure forecasts.

2.3.5 New regulatory obligations

Icon Water will incur additional expenditure during the 2023–28 regulatory period to comply with new regulatory obligations related to critical infrastructure and distribution of costs for unit titles. Further detail of these obligations and the associated operating expenditure is outlined in Attachment 1.

These new regulatory obligations will also require Icon Water to incur additional capital expenditure in the 2023–28 regulatory period. This expenditure is not yet captured in our capital investment plan; rather we would seek to include any prudent and efficient capital expenditure associated with these regulatory obligations in the *ex-post* review as part of the 2028–33 price investigation.

2.3.6 Updated actual capex for 2018–23

Icon Water has updated its actual forecast capex for the 2018–23 regulatory period, which is $516.5 million. This is $14.0 million higher than our estimate in our regulatory proposal and $55.8 million higher than the Commission's 2018 final decision, which allowed for capex of $460.7 million ($2022–23) during the 2018–23 regulatory period. The breakdown between water and wastewater services is shown in Table 2-4.

[20] This expenditure is captured across three step changes:

- Security of Critical Infrastructure (SoCI): $1.51m
- Managing Buildings Better: $2.46m
- ICT investment (SaaS): $21.3m

Table 2-4: Icon Water's 2018–23 capex against the Commission's 2018 decision ($millions, $2022–23)

	2018–19	2019–20	2020–21	2021–22	2022–23	Total
Water						
ICRC's 2018 decision	$38.0	$54.1	$45.1	$30.4	$24.3	$191.9
Actual / forecast	$49.0	$63.6	$45.8	$25.8	$27.8	$212.0
Variance	$10.9	$9.6	$0.6	-$4.6	$3.5	$20.1
% variance	28.7%	17.7%	1.4%	-15.0%	14.4%	10.5%
Wastewater						
Commission's 2018 decision	$76.8	$59.8	$55.1	$33.6	$43.6	$268.8
Actual / forecast	$73.3	$67.8	$54.9	$59.6	$48.8	$304.6
Variance	-$3.4	$8.1	-$0.2	$26.1	$5.3	$35.8
% variance	-4.5%	13.5%	-0.4%	77.7%	12.1%	13.3%
Combined total						
Commission's 2018 decision	$114.8	$113.8	$100.2	$64.0	$67.9	$460.7
Actual / forecast	$122.3	$131.4	$100.7	$85.5	$76.6	$516.5
Variance	$7.5	$17.6	$0.4	$21.5	$8.7	$55.8
% variance	6.5%	15.5%	0.4%	33.6%	12.9%	12.1%

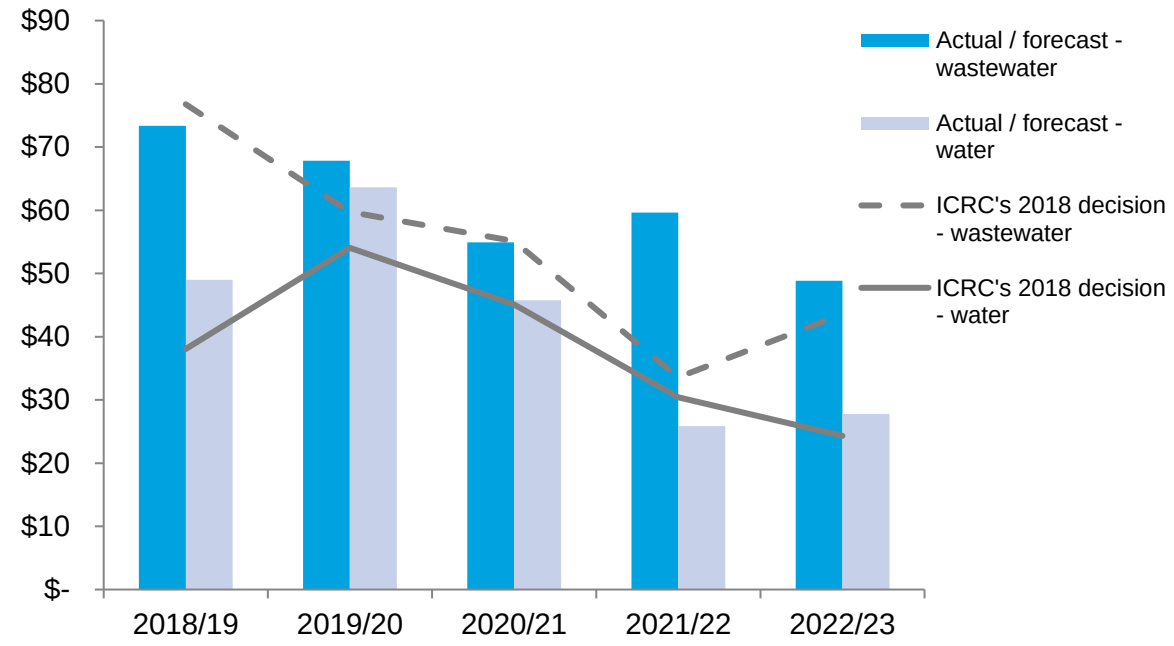
Source: Icon Water. Totals may not sum due to rounding.

We have updated our cost estimate to:

- include capitalised lease costs which were inadvertently omitted from our original proposal
- remove double counting of minor assets which we identified and updated as part of the expenditure review process with the Commission
- provide an updated capex forecast for the 2022–23 financial year. Any variance between our forecast for 2022–23 and the actual costs we incur will be trued-up during the next regulatory review.

Figure 2-6 shows Icon Water's water and wastewater capex spend against the Commission's 2018 decision in each year of the 2018–23 regulatory period.

Figure 2-6: Annual capex for water and wastewater, 2018–23 ($million, 2022–23)



Source: Icon Water.

2.4 Response to Commission's Draft Decision for individual projects

This section sets out Icon Water's response to the Commission's Draft Decision for individual projects. The Commission accepted the recommendations of MJA for all projects individually assessed as part of its expenditure review.

Our responses provide additional information for several projects to support revised cost estimates. We have also updated our estimates for our Secondary Treatment Bioreactors Capacity Upgrade and Biosolids Management projects at LMWQCC.

Table 2-5 summarises the cost estimates provided in our proposal, the Commission's Draft Decision and our revised proposal supported by additional information. In some cases, we accept the Commission's Draft Decision to reduce cost estimates for individual projects.

Table 2-5: Summary of Icon Water's response to MJA assessment of top 10 projects ($millions, 2022–23)

Project and project code	Icon Water Proposal	Draft Decision	Revised Icon Water Proposal	Difference to Draft Decision
Secondary Treatment Bioreactors (CX11061)	$192.1	$192.1	$192.2	$-
Biosolids Management Renewal (CX11262)	$66.0	$61.9	$66.0	$4.2
Water Meter Renewals Program (CX11313)	$33.4	$26.7	$30.0	$3.3
Office Space Utilisation (CX11337)	$12.7	$1.5	$4.6	$3.1
Sewer Mains Renewal Program (CX11311)	$63.0	$63.0	$63.0	$-
Water Mains Renewal Program (CX11312)	$13.1	$13.1	$13.1	$-
Cotter Pump Station Upgrade (CX11266)	$24.0	$25.1	$25.1	$-
Lower Red Hill Reservoir Tank B (East) (CX11082)	$12.6	$9.1	$10.4	$1.3
Vehicle Lease Renewals Program for Heavy Vehicle Fleet (CX11319)	$13.8	$12.9	$12.9	$-
Asset Information Management System (AIMS) (CX11366)[21]	$13.2	$13.2	$-	-$13.2
Project Axle	$18.0	$10.9	$18.0	$7.1

Source: Icon Water. Totals may not sum due to rounding.

Note that throughout this section we have applied consistent escalators to the 'Icon Water Proposal', 'Draft Decision' and 'Revised Icon Water Proposal' so that they are comparable.

[21] AIMS has been taken out of our capex forecast and included in the ICT investment (SaaS) opex step change.

2.4.1 LMWQCC Secondary Treatment Bioreactors Capacity Upgrade

The Commission's Draft Decision accepts MJA's recommendations and findings for its assessment of the Secondary Treatment Bioreactors Capacity Upgrade project at LMWQCC. MJA found our initial cost estimate prudent and efficient, noting:

> … the $178.9m included in the period is an effective balance of risk and therefore considered an efficient allowance of capital expenditure to the period.[22]

Since this assessment, the project has progressed through our IPaD process with a business case approved by our Investment Review Committee in November 2022 and the Icon Water Board in December 2022. We have subsequently commenced market sounding activities as we seek a suitably qualified delivery partner for this project.

As noted by MJA, and outlined in our original proposal, Icon Water chose to only include a portion of the project's total expenditure (approximately 50 per cent) in the 2023–28 regulatory period to avoid passing costs on to customers too early if unforeseen delays impact project commencement. To clarify, this represents our lower-bound estimate of expenditure for this period, and not the expenditure which has a greater than 50 per cent probability of being incurred in that time, as outlined in our proposal:

> Our 2023–28 price proposal adopts a lower-bound estimate of forecast expenditure for the Biosolids Management Renewal and Secondary Treatment Bioreactors Capacity Upgrade projects at LMWQCC. Both projects are critical and the majority of the works in the 2023–28 regulatory period are expected to occur in 2026–27 and 2027–28. Actual expenditure for the projects may vary depending on the preferred options and we intend to include actual expenditure for ex-post review in our next regulatory proposal. Icon Water's decision to include the lower-bound estimate of forecast expenditure for the two projects minimises the short-term impact on customers' wastewater bills.[23]

In our revised proposal, we have maintained our initial estimate, with a minor update to the expected cashflow in the first two years, despite our business case suggesting a slightly higher estimate is appropriate. Our revised forecast is outlined in Table 2-6.

Table 2-6: Revised cost estimate for Secondary Treatment Bioreactors Capacity Upgrade ($millions, 2022–23)

Description	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Icon Water regulatory proposal	$17.1	$9.8	$27.9	$64.4	$72.9	$192.1
Commission's Draft Decision	$17.1	$9.8	$27.9	$64.4	$72.9	$192.1
Icon Water revised forecast	$10.6	$16.7	$28.0	$64.2	$72.9	$192.2
Difference	-$6.5	$6.8	$0.0	-$0.2	-$	$-

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

[22] MJA, *Icon Water 2023–28 expenditure review – Final Report*, 12 October 2022, p. 126

[23] Icon Water, *Price Proposal - Attachment 7, Capital Expenditure*, 30 June 2022, p. 33

2.4.2 LMWQCC Biosolids Management Renewal

The Commission's Draft Decision accepts MJA's recommendations and findings for its assessment of the Biosolids Management Renewal project at LMWQCC. MJA found the project prudent but recommended a minor adjustment to the profile of expenditure for the project, which shifts some expenditure into the 2028–33 regulatory period.

The minor adjustment was recommended because our delivery timing assumed some preliminary earthworks would be accelerated to align with site works for the Secondary Treatment Bioreactors Capacity Upgrade project to realise delivery efficiency. Without evidence to support our position, MJA did not find this assumption efficient.

Since this assessment, the project has progressed through our IPaD process with a business case identifying the preferred technical option endorsed by our Investment Review Committee in November 2022 and the Icon Water Board in December 2022. We have subsequently commenced market sounding activities as we seek a suitably qualified delivery partner for this project.

As noted by MJA, and outlined in our original proposal, Icon Water chose to only include a portion of the project's total expenditure (approximately 27 per cent) in the 2023–28 regulatory period to avoid passing costs on to customers too early because unforeseen delays may impact when the project commences.

Icon Water accepts that, at this point in time, there is limited information to quantify the efficiency benefit of aligning site preparation and civil earthworks with the Secondary Treatment Bioreactors Capacity Upgrade project. Accordingly, we have adjusted our proposed forecast to remove this assumption and accept MJA's assessment.

As delivery planning for the two major projects occurs, we will seek opportunities to identify delivery efficiencies. This would be consistent with the Commission's position that Icon Water may need to re-prioritise expenditure over the course of the regulatory period. Our revised forecast is outlined in Table 2-7.

Table 2-7: Revised cost estimate for Biosolids Management Renewal ($millions, 2022–23)

Description	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Icon Water regulatory proposal	$8.3	$6.0	$25.2	$11.2	$15.2	$66.0
Commission's Draft Decision	$3.6	$3.6	$7.3	$14.6	$32.8	$61.9
Icon Water revised forecast	$3.8	$3.9	$7.8	$15.6	$35.0	$66.0
Difference	$0.2	$0.2	$0.5	$1.0	$2.2	$4.2

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

2.4.3 Water Meter Renewals Program

The Commission's Draft Decision accepts MJA's recommendation to reduce the allowance for our Water Meter Renewals Program. MJA's recommendation to reduce the expenditure forecast for meters was based on a reduction in the number of reactive renewals and number of new meters. MJA accepted Icon Water's forecast for proactive meter renewal and the unit rates for each of the programs.

The Water Meter Renewals Program covers four pieces of work to support metering, including:

- proactive water meter renewals for small meters
- proactive water meter renewals for large meters (typically non-residential customers)

- reactive renewal of faulty meters
- issue and inspection of new meters for developers.

We have reviewed the water meter forecasts for new meters and our estimate of reactive renewals in response to MJA's assessment and adjusted our forecast.

MJA's new meter forecast underestimates future demand

MJA proposed adjusting our estimate of new meter installations by using the average of the last three years of new meter installations. Using this time period to estimate future meter numbers is problematic, as 2019–20, 2020–21 and 2021–22 were all impacted by COVID-19 lock-downs which reduced the annual roll-out of new meters. These impacts included temporary shut-down of construction for some periods of time, as well as extended delays on some construction sites due to state and territory border closures, and supply chain issues in the construction industry. As such, this period is not reflective of future growth.

MJA's forecast also does not align with the ACT Government's policies on development growth, as outlined in our original submission.

> The ACT Government's current land release program is forecasting the development of around 16,434 dwelling sites across the ACT between 2021–22 and 2025–26. This is supplemented by private sector releases of approximately 7,500 new dwellings. This would be an increase of over 12 per cent in dwelling numbers that will require water and wastewater services. The majority (70 per cent) of these are expected to be multi-unit dwellings. In addition, the ACT Government's current land release program is for about 500,000m^2 of additional non-residential land across the ACT between 2021–22 and 2025–26.[24]

The forecast from MJA on the growth of total meter numbers also does not align with the Commission's forecast increase in connection numbers.

[24] Icon Water, *Price Proposal – Attachment 7, Capital Expenditure*, 2022, p. 45

Table 2-8: Forecast annual increase in total meter and connections

Description	Initial meters or connections (2022–23)	Forecast increase in meter numbers or connections					Total increase from 2022–23
		2023–24	2024–25	2025–26	2026–27	2027–28	
Icon Water regulatory proposal	130,880	2,774	3,127	3,530	3,992	4,507	*13.7%*
MJA forecast increase in meters	130,880	1,764	1,764	1,764	1,764	1,764	*6.7%*
Commission's forecast connections	198,459	201,002	203,957	207,061	210,061	213,761	*8%*
Annual increase in forecast connections		*2,543*	*2,955*	*3,104*	*3,000*	*3,700*	
Icon Water revised forecast	130,880	1,949	2,047	2,152	2,267	2,304	*8%*

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

Icon Water has adjusted our new meter forecast to grow at the same rate as the Commission's increase in connection numbers. This assumes that the fraction of new connections with a meter remains at historic levels where approximately 70 per cent of new connections have a meter, with the remainder (i.e. multi-unit dwellings) assumed to have a bulk meter (i.e. multiple 'connections' per meter).

The actual numbers of new meters issued is sensitive to assumptions around the ACT Government land release program and timing of new connections. Given the Commission's forecast is lower than the ACT Government program, Icon Water is taking some risk in having a lower forecast, and we would anticipate adjusting the actuals on this program to reflect the actual development profile and adjust it accordingly in the *ex-post* review.

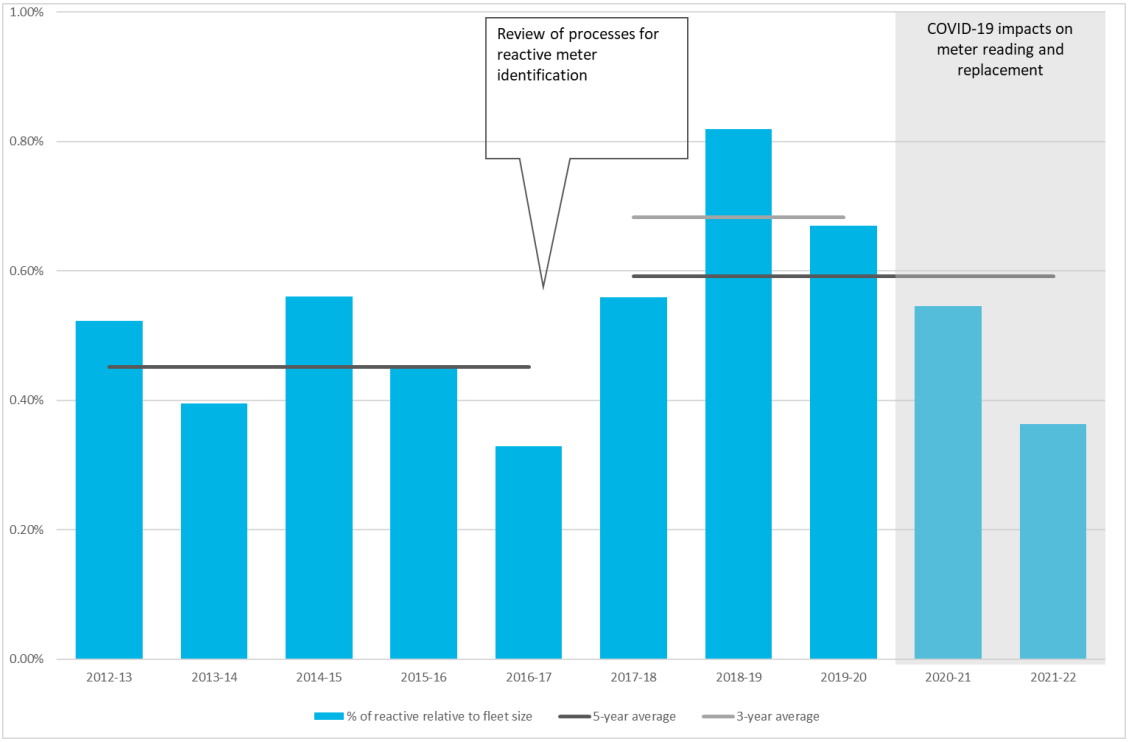
Reactive meter renewal

MJA proposed adjusting the reactive meter renewal forecast to be the average of the last five years of new meters issued. The use of these time periods to estimate future meter numbers based on absolute numbers of meters replaced is problematic due to several factors:

1. 2019–20, 2020–21 and 2021–22 were all impacted by the COVID-19 response which included pauses and interruptions to the meter replacement programs and meter reading. As such, the identification of meters requiring reactive replacement was reduced, and therefore the last three-year period is not reflective of longer-term reactive meter replacement.
2. Our practices and processes have changed over time. Icon Water conducted a review of the metering processes in 2017 which included reviewing the practices and processes for identification of 'failed' water meters. This increased the number of meters replaced through improved identification. A continuous improvement program to refine the identification of failed meters was implemented in 2021–22 and this is anticipated to drive up the volume of reactive replacements.
3. The use of 'absolute' numbers of reactive meter replacements fails to account for growth in the meter fleet through increased connection numbers. Given the meter fleet is projected to increase by at least eight per cent over the next five years, it would be expected that reactive failure numbers will also increase by this quantum. MJA's forecasts are not adjusted for the increase in the meter fleet.

Figure 2-7 shows the reactive meter replacement rate, with the five-year average for each regulatory period shown. The impact of COVID-19 is clear with a significant decrease in the rate of reactive replacement.

Figure 2-7: Reactive meter replacement rate



Source: Icon Water.

Icon Water has adjusted the reactive meter forecast for the 2023–28 regulatory period to have the same fraction of reactive meter replacements as the 2018–23 regulatory period (refer to Table 2-9). This is based on a total meter fleet growing as per the revised new meter connections.

Table 2-9: Reactive meter forecast

Description	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Icon Water regulatory proposal	1,150	1,341	1,615	1,915	2,289	8,310
MJA forecast of reactive replacement	741	741	741	741	741	3,705
Icon Water revised forecast	859	872	885	899	914	4,429

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

Impact on cost forecast

The financial adjustment proposed by MJA applied a simple percentage calculation, thereby assuming that each of the four pieces of work covered by the program have the same unit rate.

This did not allow for the differences in unit rates between the new meter forecast, which has the lowest cost per unit, to the replacement program forecast which has a higher cost per unit. The new meter program only covers the cost of issuing the meter, with installation occurring at the cost of the developer. Refer to Table 2-10 which shows the activities undertaken for each program and cost of each meter replacement relative to a new meter issue. The renewal programs also require investigation and

potential reconfiguration to either ensure that the meter matches the consumption profile, or to upgrade older meter installation with the current standard configuration of valving and location.

Table 2-10: Comparison of unit rates and activities undertaken at Icon Water's expense during meter installation

Program	Relative unit rate as a multiple of new meter issue ($ is the lowest unit cost)	Meter issue	Meter Installation	Meter Inspection	Investigation, reconfiguration or upgrade to current standard
Proactive – small	$$	✓	✓	✓	20% of meters
Proactive – large	$$$$$	✓	✓	✓	✓
Reactive	$$	✓	✓	✓	✓
New meter issue	$	✓	-	✓	-

Source: Icon Water.

As MJA applied the largest changes to the programs with lower Icon water costs, it has overestimated the total adjustment required.

Icon Water has adjusted the total project forecast, using the meter numbers outlined above and applied appropriate unit rates for each type of replacement forecast. Our revised forecast is outlined in Table 2-11.

Table 2-11: Revised cost estimate for Water Meter Renewals Program ($millions, 2022–23)

Description	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Icon Water regulatory proposal	$6.3	$6.6	$6.7	$6.8	$7.0	$33.4
MJA forecast	$4.9	$5.2	$5.3	$5.5	$5.7	$26.7
Icon Water revised forecast	$5.6	$5.9	$6.0	$6.1	$6.3	$30.0
Difference	$0.7	$0.7	$0.7	$0.7	$0.6	$3.3

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

These forecasts assume that the metering policies and regulations remain the same as 2018–23. The potential impact of the ACT Government's Managing Building Better reforms on this program is included in Attachment 1.

2.4.4 Office Space Utilisation Project

The Commission's Draft Decision accepts MJA's recommendation to provide an allowance of $1.5 million ($2022–23)[25] during the 2023–28 regulatory period to strategically plan the Office Space Utilisation project but provides no funding to deliver the project.

[25] $1.4 million ($2021–22) in the MJA report.

A key objective of the Office Space Utilisation project is to relocate approximately 40 staff from a current premises when its lease expires in December 2024. This lease is capital expenditure.

On 8 September 2022 we notified the Commission[26] that a number of leases (including the lease to accommodate 40 staff that expires in December 2024) had been erroneously left off the 2018–23 capital investment plan following a change to accounting standards effective 1 July 2019. As part of this submission, we have updated the capital investment plan for the 2018–23 regulatory period to correct this oversight.

For the 2023–28 regulatory period, we accept the $1.5 million allowance to develop the project to "*enable Icon Water to implement a robust, prudent and efficient accommodation solution in 2028–2033*"[27] as it is a reasonable reflection of this component of the project. In the meantime, there are 40 staff who will continue to need office space once the existing lease expires in December 2024. We have updated our 2023–28 capital investment plan to include an annual allowance to accommodate these staff for the period January 2025 to June 2028, following expiry of the current lease. The annual allowance is calculated based on the current lease costs and considered a lower-bound estimate for accommodating these staff, pending implementation of the Office Space Utilisation project.

The revised capital forecast for this project for the 2023–28 regulatory period is $4.6 million (Table 2-12).

Table 2-12: Revised cost estimate for Office Space Utilisation Project ($million, 2022–23)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Icon Water original forecast	$8.1	$4.7	$-	$-	$-	$12.7
MJA forecast	$1.5	$-	$-	$-	$-	$1.5
Icon Water revised forecast	$1.5	$0.5	$0.9	$0.9	$0.9	$4.6
Difference	-$0.0	$0.5	$0.9	$0.9	$0.9	$3.1

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

2.4.5 Sewer Mains Renewal Program

The Commission's Draft Decision accepts MJA's assessment that this project is prudent and efficient because it is similar in scope and costs to the same program in the 2018–23 regulatory period and delivers similar outcomes.[28] We do not propose any changes to the capital forecast for this project.

2.4.6 Water Mains Renewal Program

The Commission's Draft Decision accepts MJA's assessment that the proposed level of water main renewals is prudent and the cost estimate for the delivery of the program is based on the costs to complete similar works in the 2018–23 regulatory period.[29] We do not propose any changes to the capital forecast for this project.

[26] Icon Water, letter to the Commission "*Regulated Water and Sewerage Services 2023–28: Revisions to Capital Investment Plan*", 8 September 2022. Available at: https://www.icrc.act.gov.au/

[27] MJA, *Icon Water 2023–28 expenditure review – Final Report*, 12 October 2022, p. 170

[28] ICRC, *Draft Report, Regulated water and sewerage services 2028–23*, October 2022, p. 54

[29] ICRC, *Draft Report, Regulated water and sewerage services 2028–23*, October 2022, p. 54

2.4.7 Cotter Pump Station Upgrade

The Commission's Draft Decision accepts MJA's assessment.[30] We do not propose any changes to the capital forecast for this project.

2.4.8 Lower Red Hill Reservoir Tank B (East)

The Commission's Draft Decision accepts MJA's recommendation to provide an allowance of $9.1 million ($2022–23) during the 2023–28 regulatory period for this project. This is $3.5 million ($2022–23) lower than the forecast included in our original proposal.[31]

MJA's assessment was based on a reduction in costs for project management and detailed design, as well as a reduction in costs associated with improving site access and restorative landscaping. This also reduced the contingency, and overall contractor margins. Table 2-13 outlines our response to each of MJA's adjustments.

Table 2-13: Response to MJA's adjustments for Lower Red Hill Reservoir Tank B East

Description	MJA's rationale to recommend removal	Icon Water's response
Icon Water project management and stakeholder review cost during detailed design	Reduced by 80% due to overall reductions in project forecast and assumed lower external support	Accepted; and reforecast.
Site access improvements	Reduced to 45% of original estimate	Accepted; noting actual costs will depend on road condition during and post construction.
Site restoration and landscaping	Complete removal	Icon Water disagrees with this assessment and propose to include the original $0.38 million. The demolition and construction works will disturb a sizable area within Red Hill Nature Reserve which will require reinstatement on completion. The allowance includes replanting 3000 sqm with variable treatments, stormwater management and reinstatement of site security fences.
Contingency	Removed	Modified contingency forecast to only include for demolition, site access and landscaping as these do not have benchmarked comparators.
Contractor preliminaries, contractor margins and Icon Water project management	Reduced based on previous adjustments	Recalculated noting adjustment above.

Source: Icon Water.

The revised capital forecast for this project for the 2023–28 regulatory period is $10.4 million as outlined in Table 2-14.

[30] ICRC, *Draft Report, Regulated water and sewerage services 2028–23*, October 2022, p. 54

[31] In the MJA report, the recommended allowance was $8.5 million ($2021–22) which is $3.5 million ($2021–22) lower than our original price proposal.

Table 2-14: Revised cost estimate for Lower Red Hill Reservoir Tank B East ($million, 2022–23)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Icon Water original forecast	$5.1	$7.6	$-	$-	$-	$12.6
MJA forecast	$3.6	$5.5	$-	$-	$-	$9.1
Icon Water revised forecast	$0.3	$2.7	$7.4	$-	$-	$10.4
Difference	-$3.3	-$2.8	$7.4	$-	$-	$1.3

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

2.4.9 Vehicle Lease Renewals Program for Heavy Vehicle Fleet

The Commission's Draft Decision accepts MJA's assessment that the allowance for heavy vehicle fleet renewals for the 2023–28 regulatory period is $12.9 million ($2022–23). We do not propose any changes to the forecast for this project and note that this allowance is consistent with additional information we provided to the Commission on 8 September 2022.[32]

2.4.10 Asset Management Information System

The Asset Management Information System (AMIS) project includes:

- replacing the current on-premises Oracle mobility solution (MWM), which will not be supported from 2025
- upgrading the current on-premises version of the Oracle Works and Asset Management (WAM) system
- upgrading the current on-premises Oracle Utilities Application (OUA).

The Commission's Draft Decision accepts MJA's recommendation that:

> We deem the project prudent. There is little supporting information to deem the project efficient, but it is clearly more efficient than replacing the current Oracle solution. We therefore recommend that the original proposed sum of $12.3 million to deliver the uplift in Oracle capability required to create a cohesive and beneficial asset management information landscape with mobility functionality that is stable and supported into the future.[33,34]

Documentation supplied to MJA during its expenditure review[35] confirmed that the Oracle roadmap for each of the in-scope systems requires Icon Water to move to a cloud/SaaS solution during the 2023–28 regulatory period. Shifting from on-premises to cloud/SaaS will mean a change in accounting

[32] Icon Water, letter to the Commission "*Regulated Water and Sewerage Services 2023–28: Revisions to Capital Investment Plan"*, 8 September 2022. Available at: https://www.icrc.act.gov.au/

[33] MJA, *Icon Water 2023–28 expenditure review – Final Report*, 12 October 2022, p. 162

[34] The $12.3 million ($2021–22) per the MJA report has been escalated to $13.2 million ($2022–23) for the purpose of this response

[35] *AMIS Roadmap – Discovery Phase Final Report*, February 2022. Internal Icon Water document previously provided to MJA.

treatment, from capital to operating expenditure. Refer to section 2.3.4 for further information on the accounting treatment of ICT investment for the 2023–28 regulatory period.

Consistent with the change in accounting treatment, this project has been removed from the 2023–28 capital investment plan (refer to Table 2-15) and a corresponding opex step change for $13.2 million in included in this submission (refer to Attachment 1).

Table 2-15: Revised cost estimate for Asset Management Information System ($million, 2022–23)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Icon Water original forecast	$-	$1.7	$7.0	$4.4	$-	$13.2
MJA forecast	$-	$1.7	$7.0	$4.4	$-	$13.2
Icon Water revised forecast	$-	$-	$-	$-	$-	$-
Difference to MJA forecast	$-	-$1.7	-$7.0	-$4.4	$-	-$13.2

Source: ICRC Draft Report, *Regulated water and sewerage services 2023–28, October 2022*; Icon Water analysis. Totals may not sum due to rounding.

2.4.11 Project Axle – Asset Management and Maintenance Solution

The Commission's Draft Decision includes an adjustment of $6.63 million to the cost of Project Axle, referencing the analysis provided by MJA as part of its expenditure review of Icon Water, finding:

> Icon Water upgraded its asset management system, providing additional functionality and improving its operations data. The project budget for 2018–23 was $9.5 million, but actual costs were $16.8 million. Based on the information provided, MJA found costs exceeded the budget due to issues with the design and delivery of a large-scale ICT project. Despite higher costs, the original scope was not completed. MJA recommended the total cost of the project be adjusted by $6.6 million. This removed the costs related to issues with the project design and management, and scope not delivered.[36]

However, we note that MJA's report provides the following analysis:

> Our ex-post review of Icon Water's expenditure in 2018–23 resulted in very little adjustment to its expenditure to be rolled forward in the RAB.
>
> Most notably, Icon Water experienced a significant overspend in Project Axle, which **we recommend is allowed**[37] on the basis that Icon Water had limited experience in the design and delivery of large-scale ICT projects of this type and has demonstrated diligence in analysing its learnings and implementing systemic change at Icon Water to prevent this type of overspend in the future. Learnings must occur somewhere and some allowance for this should be made, however, overspends of this type in the future are not expected based on Icon Water's demonstrated learnings and its commitment to systemising the changes.[38]

[36] ICRC, *Draft Report, Regulated water and sewerage services 2028–23*, October 2022, p. 46

[37] Emphasis added

[38] MJA, *Icon Water 2023–28 expenditure review – Final Report*, 12 October 2022, p. 70

Icon Water agrees with this section of MJA's analysis of Project Axle. However, we note the inconsistency with other sections of the report which suggest inefficiencies occurred in the delivery and management of the project. We consider additional information not requested as part of the expenditure review can further demonstrate the project's efficiency. Our response includes independent audit reports undertaken during the project, which demonstrate good governance and efficient project management and delivery, including active decisions to ensure efficiency.

However, irrespective of the additional information we can provide to support the efficiency of Project Axle, we consider MJA's assessment does not support a conclusion that the project's expenditure was inefficient.

Project Axle was efficient and supported Icon Water's core business

Project Axle upgraded Icon Water's asset management and maintenance ICT solution that provides works management and asset management functionality to multiple work groups across Icon Water. The project replaced multiple bespoke ICT systems with a single solution, replaced systems coming to the end of their technical life and improved productivity.

Icon Water commenced an approach to market for an asset management and maintenance system in April 2016. The approach involved a phased procurement exercise to identify the best value-for-money asset management and maintenance system that would achieve the following targeted outcomes:

- replace ageing, end of life and unsupported IT systems
- address key issues with asset management processes
- support future flexibility to external drivers
- support efficiency gains across the business.

The total overspend was not as high as indicated by MJA

The total cost of the project was $36.0 million, which was $6.03 million (or 20%) more than our initial estimate of $29.97 million. This initial cost estimate also identified a project contingency of $3.2 million, bringing the total project cost to $33.2 million.

MJA's focus on the project overspend, which is its basis for calculating inefficiency, is based on our mid-range estimate of the project's costs.

Approximately $16.8 million of the expenditure was incurred in 2018–19 and hence fell into the 2018–23 regulatory period, with $19.2 million of the expenditure occurring in the 2013–18 regulatory period. The actual project overspend in comparison to the total cost including contingency was only $3.0 million, and not $6.6 million as suggested in the Commission's Draft Decision.

The project was assessed by the Commission and its expenditure consultants Calibre in 2017 as part of its ex-post review of Icon Water's 2013–18 capital expenditure.[39] The Commission found in its 2018 review that the expenditure on the project to date was efficient.[40]

Evidence provided to demonstrate efficiency was mischaracterised by MJA

The amount MJA quantified to demonstrate inefficiency was based on information provided to the Icon Water Board to approve the last phase of delivery and request release of the contingency for this project. Notwithstanding that this governance arrangement demonstrates effective oversight and executive involvement, the Board Paper does not quantify inefficiency as described by MJA.

[39] Calibre, *Final Report, Review of Icon Water's Capital and Operating Expenditure for Water and Sewerage Services*, July 2018, p. 78

[40] ICRC, *Final Report, Regulated water and sewerage service prices 2018–23*, May 2018

The paper provided to the Board in September 2018 requested an increase in the Project Axle budget and release of the $3.2 million contingency identified at project inception. The paper provides a detailed overview of how Icon Water had mitigated key risks associated with the project's implementation. The paper provided a comprehensive snapshot of the budget implications of external and internal factors impacting the project.

Figures in the Board Paper compared actuals against earlier indicative project budgets that were anticipated at project inception and iteratively updated over time. The factors MJA characterised as being inefficient were presented as additional areas of focus for the project team to control total project expenditure for the remainder of the project.

Icon Water provided a significant suite of documents to support the efficiency of Project Axle. These documents show appropriate governance and executive oversight. While the suite of documents does document issues the project faced, they also demonstrate the effective management and governance actions that were undertaken to mitigate identified risks.

Research from Standish Group notes that over 50 per cent of IT projects are categorised as 'challenged' compared to a success rate of just under 30 per cent and a failure rate of approximately 20 per cent.[41] Research from McKinsey and Company suggests the average cost over-run for large IT projects is approximately 45 per cent.[42] Project Axle experienced a 'cost over-run' of about 10 per cent relative to the initial project estimate plus contingency.

MJA's recommendation does not recognise the significant challenges companies like Icon Water face to deliver large IT projects and ensure their successful implementation. MJA's recommendation seeks to hold Icon Water to a higher standard than comparable companies and fails to acknowledge the successes and operational benefits that result from Project Axle.

An overspend or delay in a project's cost is not in itself evidence of ineffective management nor inefficiency. Projects of this size are complex, which can lead to underestimation of cost, which we consider was the primary driver of the overspend, and not inefficient management.

Management decisions were effective and supported successful completion of the revised project's scope

Despite being a large and complex project to implement and administer, we consider management decisions that underpinned governance of Project Axle were efficient.

MJA's report lists three key concerns that it attributes to the projects overspend, including:

- delayed contract negotiations
- being the first in the world to deploy WAM v2.0 meaning there were limited skilled resources available
- replacement of the project team and the project reset.

We consider these concerns to be good examples that demonstrate effective management decisions that minimised costs and ensured successful delivery of the project. It is important to note that the first two concerns raised by MJA were not wholly within Icon Water's control, and therefore should not be used as the basis to deem project expenditure inefficient.

Delays in contract negotiations were minimal and in and of themselves did not lead to additional expenditure being incurred. Staff were re-deployed and utilised on other projects during the time that negotiations were occurring. Further, Icon Water made a decision to engage external support to assist

[41] Standish Group, *Chaos Report 2015*, p.1

[42] McKinsey & Company, *Delivering large-scale IT projects on time, on budget, and on value*, October 2012

with contract negotiations as soon as it was identified as a potential risk impacting project commencement.

In selecting the Oracle WAM product suite, we recognised the risks associated with being an early adaptor of WAM v 2.0 in Australia. Once it became evident that Icon Water would be the first to deploy WAM v 2.0 globally, we set in place mitigation activities such as engaging skilled resources with appropriate skills to help us implement and keep project delivery on track. The actions we took to mitigate this project risk are documented in external assurance reports. It is also important to note that management could not have foreseen that the slow uptake of the newly released WAM v2.0 would lead to Icon Water also becoming the first to deploy the version internationally.

Both delayed contract negotiations and being the first to deploy WAM v 2.0 were to a certain extent outside of Icon Water's control. The additional information we have provided to support the prudency and efficiency of Project Axle demonstrate the effective management actions taken to mitigate these and other project risks.

The decision to move forward with the preferred solution was backed by significant work that considered the best information available at the time. The Commission's Draft Decision and MJA's analysis suggests Icon Water should favour conservative approaches, despite our prudent and efficient asset management processes having identified WAM as the preferred option. IT systems need replacing often and selecting new and innovative solutions can be in the interest of customers because it means they have a longer asset life before becoming obsolete and needing replacement.[43]

Replacement of the project team and the project reset were efficient management actions that mitigated project overspends. We provided full and transparent information to the Commission's expenditure consultants that detailed project learnings from the implementation of WAM v 2.0. The significant amount of documentation listed by MJA to support its analysis shows the prudent management practices in place. The audit reports we have provided with this submission further demonstrate these practices.

The project was governed by a Steering Committee and had oversight by the Icon Water Board, the Risk and Assurance Committee, and Executive Committee; and external assurance at regular intervals. The decision to stand down the project team and reset the project were effective management decisions that mitigated further delays and project overspends.

The decision to stand down the project team led to greater efficiencies being realised moving forward. The revitalised project team immediately began to deliver more work in successive sprints. The additional information we have provided demonstrates a progressive improvement in project outcomes which is a testament to the project's successful governance.

In the absence of these actions the project overspend could have been significantly higher. MJA's assessment of the project does not consider the counterfactual – that management decisions led to cost savings and lower project overspends relative to what could have happened.

<u>We have provided further information that supports the efficiency of the project</u>

We have provided two independent audit reports that were undertaken during Project Axle's implementation that demonstrate effective governance and efficient management decisions.

In February 2018, Icon Water's Risk and Assurance Committee sought to engage an independent external expert to undertake a health check of the project. The external audits included recommendations to address identified issues, which were considered and adopted by the Risk and Assurance Committee.

[43] It is important to note that the second option not selected, which also met technical and operational requirements had an estimated implementation cost of approximately $50 million.

The reports, provided in April and October document the effective management actions and governance framework in place to support Project Axle. While the first report showed that the project was generally progressing well, it noted key challenges and areas to address to ensure successful completion.

Importantly, the second report demonstrates improvement in the project's performance relative to the issues identified in the first report. The second report found Project Axle was progressing well and that issues had been addressed through our actions.

We have also provided a status report for Project Axle from July 2018. This status report, which falls between the two independent audit report shows the progress the team made during this critical phase of project delivery and documents the focus areas where the project manager and team sought to improve to ensure effective delivery.

We consider this additional information that was not requested by MJA during its initial expenditure review demonstrates the project's efficiency. Project Axle was a transformative project that resulted in a number of documented learnings that will ensure Icon Water will continue to successfully deliver large and complex projects of this nature in the future.

We seek to work with the Commission and their expenditure consultants before the final decision to further demonstrate the efficiency of this project.

Appendices

Reference number	Appendix title	Author
2.1	2023–28 Capital Investment Plan (confidential)	Icon Water
2.2	Detailed Lower Red Hill Reservoir cost adjustments (confidential)	Icon Water
2.3	Project Axle independent assurance review and other reports (confidential) i. Status report (July 2018) ii. Independent Health Check (October 2018) iii. Independent Health Check follow-up review (April 2019)	Multiple

Abbreviations and acronyms

AER	Australian Energy Regulator
AIMS	Asset Management Information System
capex	capital expenditure
Commission	Independent Competition and Regulatory Commission
ESC	Essential Services Commission
GHG	green house gas
GWTP	Googong Water Treatment Plant
IPaD	Investment Planning and Design
IRC	Investment Review Committee
LMWQCC	Lower Molonglo Water Quality Control Centre
MJA	Marsden Jacobs Associates
MWM	Mobile Works Management
opex	operating expenditure
OUA	Oracle Utilities Application
RAB	regulatory asset base
SaaS	Software as a Service
SoCI	Security of Critical Infrastructure
SWTP	Stromlo Water Treatment Plant
WAM	Works and Asset Management
WSCC	Water and Sewerage Capital Contribution