

4 CAPITAL EXPENDITURE

Capital expenditure or capex refers to the amount invested by TasWater in assets to provide regulated services. In determining maximum prices, the Regulator only includes capex used to provide regulated services. Capital expenditure on assets used to provide unregulated services, such as the supply of water for irrigation, is excluded.

The Regulator assesses TasWater's proposed capex using the prudence and efficiency tests and also assesses whether the overall level of proposed capex is feasible over the regulatory period.

4.1 Regulator's draft decisions

The Regulator has made the following draft decisions:

1. Approve a capex allowance \$45.4 million lower than TasWater proposed, at a total of \$861.9 million for the fourth regulatory period, which is 95 per cent of TasWater's proposed capex, as set out in Table 4.1.
2. Accept that the expected costs associated with TasWater's CDO for the fourth regulatory period are prudent and efficient.
3. Accept that TasWater's proposed expenditure on the Pioneer water supply project is prudent and efficient.
4. Require TasWater to continue to provide the Regulator with six monthly progress reports on its capital program.
5. Require TasWater to implement the improvements in relation to asset management, capital planning and prioritisation and capex governance frameworks identified by CCGUS during the fourth regulatory period.
6. Require TasWater to provide the Regulator with six-monthly reports within one month of the end of the six-month period on its progress towards implementing the above improvements commencing from the six month period ending on 31 December 2022.
7. With respect to gain-share and pain-share adjustments with the CDO, require TasWater to include only those costs that it actually incurs when capitalising CDO-related expenditure and including that expenditure in its RAB.
8. Require TasWater's submission on this Draft Report to explain how TasWater's capital planning processes address the lack of inter-connectivity between TasWater's water supply networks and indicate whether it has assessed options to reduce the risk of water restrictions due to this lack of inter-connectivity and, if so, provide the results of any assessments.

Table 4.1 TasWater's capex allowance for the fourth regulatory period (\$million, nominal)

	2022-23	2023-24	2024-25	2025-26	Total
TasWater's proposed capex	226.0	233.3	227.0	220.9	907.3
Regulator's intended adjustment	11.3	11.7	11.4	11.0	45.4
Capex allowance	214.7	221.6	215.7	209.9	861.9

TasWater's proposed capex allowance is significantly higher than approved by the Regulator under the previous determination by around \$70 million a year, or the equivalent of \$280 million over the fourth regulatory period.

4.2 Prudence, efficiency and the Regulator's capex allowances

Proposed capex is assessed as prudent if:

- it could be reasonably expected or required by an operator exercising good industry practice; and/or
- is consistent with delivering the required service levels, outputs and obligations over the relevant regulatory period.

Proposed capex is assessed as efficient if it is considered to be the minimum level of expenditure that is required to deliver a desired outcome or result consistent with an operator exercising good industry practice. That is, capex is efficient if it represents the most cost effective way of providing the relevant services.

The Regulator expects TasWater to develop and manage a prudent and efficient capex program that allows it to provide regulated services to its customers, while improving its compliance with its health, environmental and dam safety obligations.

The Regulator does not impose a limit on TasWater's capex. Rather, based on its assessment of TasWater's proposed capex applying the prudence and efficiency tests, the Regulator approves a capex allowance. This includes recognising commitments TasWater has made to the industry regulators (see Appendix B of this Report). It is, however, up to TasWater to decide how much it spends and which projects it invests in.

TasWater may spend more than the amount that the Regulator allows, or invest in projects that have not been included in the relevant capital allowance. Provided that expenditure is found in future price determination investigations to be prudent and efficient, the amount expended is included in TasWater's RAB in future years and TasWater can then receive a return on that expenditure and a depreciation allowance on the assets.

4.3 Assessment of TasWater's capex

In determining whether TasWater's proposed capex program for the fourth regulatory period is prudent and efficient, the Regulator considered the reasons and evidence TasWater provided in support of its capex priorities, and whether TasWater's proposed timeframes for delivery of its capex program are reasonable considering its past capex delivery. The Regulator also considered how TasWater has prioritised capex projects after taking into account the requirements of other industry regulators and whether TasWater's asset planning and asset management reflect best practice.

Capex was assessed as to whether the expenditure is supported by a business case or other relevant information that demonstrates the proposed expenditure is both prudent and efficient, and consistent with TasWater's longer-term plans.

This required the Regulator to examine aspects of TasWater’s capex program for the third regulatory period, focussing on:

- whether there was a need for TasWater to spend the amounts it did (was its capex prudent?);
- whether TasWater followed the most cost effective approach to achieving its desired outcomes (was its capex efficient?); and
- whether TasWater was able to deliver its capex program consistent with expected timeframes.

4.4 Engagement of external consultants

The Regulator engaged CCGUS to independently analyse and provide an opinion on TasWater’s actual and budgeted capex for the third regulatory period and its proposed capex for the fourth regulatory period. CCGUS also reviewed TasWater’s asset management, capital planning and prioritisation, and capital expenditure governance frameworks. This chapter references CCGUS’ findings, however the full CCGUS Draft Report is available on the Regulator’s website at [2022 Water and Sewerage Price Determination Investigation](#).

4.5 Regulator’s draft assessment of TasWater’s asset management, capital planning and prioritisation and capex governance frameworks

The Regulator notes CCGUS’ findings in relation to TasWater’s asset management, capital planning and prioritisation, and capital expenditure governance frameworks. The overall objective of this aspect of the review was to evaluate TasWater’s strategic planning and governance framework and to inform the Regulator’s assessment of the prudence and efficiency of actual and proposed capex. As part of its review of the selected projects, CCGUS also assessed whether there were any systemic issues with TasWater’s frameworks.

The Regulator supports CCGUS’ recommendations,¹⁹ and, in particular, the importance of streamlining and refining the existing frameworks in alignment with the CDO’s processes to enable clear and transparent planning and decision making.

The Regulator expects TasWater to implement CCGUS’ recommended improvements in relation to its asset management, capital planning and prioritisation, and capital expenditure governance frameworks by the time the next price determination investigation is conducted.

To ensure that these improvements are progressed by TasWater in a timely manner, the Regulator intends to require TasWater to provide regular progress reports during the fourth regulatory period.

4.5.1 Other asset planning issues

The Regulator recognises the legacy issues caused by the previous individual council ownership of water and sewerage assets which has resulted in assets being duplicated in adjoining municipalities. TasWater still has a large number of assets, including separate water supply systems, spread over a wide area though its focus has increasingly been on regional planning when developing its capital program (for example, the North West Water Supply Strategy).

However, the Regulator is concerned about the lack of inter-connectivity between TasWater’s networks, particularly its many water supply networks. The result is that if there is an outage at a major water treatment plant, or there is a shortage of sourced water in any one system, there may be no alternative source of supply for customers in that area and water restrictions may be imposed.

¹⁹ CCGUS’ Draft Report, page 62-63.

The Regulator considers that TasWater should seek to reduce the incidence of water restrictions, which includes assessing opportunities for increasing connectivity between water supply networks. The Regulator is interested in the results of any assessments.

4.6 Capital Delivery Office

TasWater's Capital Delivery Office commenced operating in July 2019. At the start of the Regulator's investigation, the CDO had therefore been in operation for approximately two years. The arrangement was formalised with TasWater's alliance partners UGL Engineering and CPB Contractors and their sub-alliance partner WSP through a Program Alliance Agreement (PAA) that was scheduled to expire on 30 June 2023. In February 2022, TasWater exercised its option to extend the agreement - as a result the agreement is now due to expire on 30 June 2025.

Initially the CDO was responsible for managing all capital projects but this was subsequently changed such that the CDO manages the larger, more complex projects. On this basis, the CDO will be responsible for \$710 million of the proposed capital expenditure for the fourth regulatory period of \$901 million²⁰, with TasWater managing smaller less complex projects not requiring the same level of expertise and governance.²¹

The CDO is involved in program management, planning and investigation, project development and project delivery²² but does not carry out any construction activities. In its proposed PSP and in information supplied to the Regulator during the investigation, TasWater stated that:

The CDO model for capital delivery using alliance partners ... was set up to confidently deliver TasWater's accelerated capital program in the most reliable, efficient and value-adding manner available after extensive research and an evaluation process of possible delivery models. This included a reference exercise evaluating the learnings from other major Australian water utilities using an alliance-style delivery model. While many of the delivery models adopted by other water utilities in Australia are not labelled as alliances, such a delivery model is common throughout Australia's water industry.²³

TasWater recently announced that the CDO arrangements have been extended to 30 June 2025.

4.6.1 CCGUS' review

The Regulator required CCGUS to examine the operation of TasWater's CDO and in particular to review and report on the CDO's performance for the 2019-20 and 2020-21 financial years and assess the CDO's progress towards achieving the objectives identified in the Business Case approved by TasWater's Board that led to the establishment of the CDO.

CCGUS made the following findings in relation to the CDO:

- the hourly charge rates by person and position are reasonable and the margins identified in the PAA are reasonable and in line with current industry practice;
- "...the CDO delivery of Strategic Business Cases (SBC), Detailed Business Cases (DBC) and Total Outturn Cost (TOC) documentation is very comprehensive, and where completed, provides considerable assurance to the Gateway decision makers that the best outcome for customers

²⁰ CCGUS' Draft Report, page 62.

²¹ TasWater's proposed PSP, page 13.

²² Ibid, page 106.

²³ Ibid, page 128.

has likely been identified and where delivered effectively through the procurement and delivery management, should provide cost efficiency.”

- “At present, the Review Team is unable to draw a conclusion on whether or not the CDO implementation has improved TasWater’s capex delivery efficiency during a surge in capex, however the indications are that it is having a positive effect.”²⁴

4.6.2 Regulator’s draft assessment

According to information provided to the Regulator by TasWater, the costs associated with the CDO’s operations are expected to total \$36.8 million between 1 July 2019 and 30 June 2024 with the annual Program Management Budget under the Agreement of approximately \$9 million comprising:

- direct costs for alliance partners and TasWater staff;
- a risk allowance; and
- an Alliance Contractor fee.

Based on CCGUS’ findings and its own analysis, the Regulator considers the costs associated with the CDO are not unreasonable given the positive impact the CDO appears to be having on the delivery of TasWater’s capital program. The Regulator intends to conduct an ex-post review in 2025-26 as part of the next pricing investigation, to assess over a longer period of time, the CDO’s performance.

The PAA also allows for fee modifiers such as gain-share and pain-share adjustments:

“... alliance contracting is underpinned by a risk and reward compensation regime. This means that parties equitably share in the financial “gain” of a project’s success or the financial “pain” of a project’s underachievement. All parties to the contract therefore have a shared interest in the overall success of the project.”²⁵

TasWater has advised that, under the PAA, TasWater and its Alliance Partners share one half of the gain if a project is delivered under budget, ie the Alliance Partners receive the original fee plus one half of the underspent amount up to the maximum of the original fee. However, if a project costs more than budgeted, the Alliance Partners’ fund one half of the overspent amount up to the amount of the original fee, with TasWater funding the remaining overspent amount.

With respect to these fee modifiers, the Regulator intends requiring TasWater to include only those costs that it actually incurs when capitalising CDO-related expenditure and including that expenditure in its RAB.

TasWater also advised the Regulator that the CDO’s costs are not capitalised until the relevant project is completed and commissioned. The Regulator considers this treatment to be appropriate.

Noting that the CDO has been operating for less than three years and CCGUS’ findings, the Regulator’s draft assessment for the fourth regulatory period is that the costs associated with TasWater’s CDO are prudent and efficient.

4.7 Actual capex for the third regulatory period

TasWater’s PSP for the third regulatory period indicated forecast capex of \$475.6 million (\$2021-22) for the third regulatory period to 30 June 2021. TasWater’s actual capex for this period was

²⁴ CCGUS’ Draft Report, page 8.

²⁵ Walsh, P., www.constructionblog.practicallaw.com/painshare-and-gainshare-provisions-in-alliancing-contracts-the-benefits-of-pulling-together/, 30 November 2015.

\$446.4 million (\$2021-22), lower than the Regulator's allowances by approximately \$29.1 million, or 6 per cent.

TasWater developed its capex program for the third regulatory period using a prioritisation process aligned with its Long Term Strategic Plan (2021-2030). The process sought to identify the most efficient combination of projects to deliver upon customer promises and outcomes, reflecting the relative priorities of each.

TasWater has reported an additional category labelled 'various' which was not considered during the 2018 price investigation and totals \$10.0 million over the third regulatory period. TasWater has advised that these costs relate to the CDO's program management overheads, which have been distributed across all projects and therefore relate to a number of the cost drivers. This expenditure was assessed by CCGUS as prudent and efficient.

TasWater's proposed PSP for the fourth regulatory period attributes the reduction in spending during the third regulatory period to delays in major compliance projects (Bryn Estyn WTP Major Upgrade, Pardoe Sewer Improvement Project and the Forth WTP Upgrade). To compensate for this reduction, expenditure on major renewal projects (assets that have exceeded end of life) were brought forward (\$88.8 million higher than allowed for by the Regulator for the third regulatory period), and additional funds were expended on growth projects (\$37.9 million higher) and service improvement projects (\$21.1 million higher). CCGUS' review of this aspect of TasWater's capex for the third regulatory period found the reprioritisation of expenditure to be prudent.²⁶

TasWater also provided figures to the Regulator demonstrating how the major cost drivers of its capex program changed during the third regulatory period and how its actual capex related to its various service delivery areas, as shown in the below tables.

Appendix 11 of TasWater's proposed PSP provides a full list of capex projects for the third regulatory period.

Table 4.2 Comparison of TasWater's actual capex and the Regulator's approved capex by cost driver for the third regulatory period (\$million) (\$2021-22)

Cost Driver	Regulator approved capex	Actual capex	Change
Growth	1.1	39.0	37.9
Asset renewal	67.5	156.3	88.8
Regulatory compliance	349.6	162.7	-186.9
Service improvement	57.4	78.5	21.1
Various	10.0	10.0
Total	475.6	446.5	-29.1

Source: CCGUS' Draft Report, Figure 3-2, page 84.

4.7.1 CCGUS' findings - third regulatory period capex

CCGUS completed an ex-post assessment of the following three projects:

- Pardoe Sewer Improvement Plan;
- Bryn Estyn WTP Major Upgrade; and
- North West Water Supply Strategy (formerly the Forth WTP Upgrade).

²⁶ CCGUS' Draft Report, pages 88-89.

These projects were not completed during the third regulatory period due to delays, and are now either due for completion or will commence in the fourth regulatory period. CCGUS found that the Bryn Estyn and the North West Water Supply Strategy projects were prudent and efficient, while Pardoe was considered neither prudent nor efficient. Descriptions of each of these projects and programs and the detailed findings are provided in Section 3.6.2 of CCGUS' Draft Report. CCGUS' prudence and efficiency findings are summarised in Table 4.2 below.

Expenditure originally committed to the above projects was re-prioritised during the third regulatory period, which allowed TasWater to generally meet its service performance targets, and to avoid future renewals expenditure. As such, CCGUS accepted that total actual capex in the third regulatory period was prudent and efficient as:

- actual expenditure was lower than the allowance set in the 2018 determination;
- service performance targets have generally been met, and in some cases, exceeded; and
- the deferral of compliance expenditure was prudent, as was TasWater's reprioritisation of renewals works.

4.7.2 Regulator's draft assessment - third regulatory period capex

The Regulator has reviewed CCGUS' findings and intends to accept them, noting that while there was a capex underspend, the reprioritised expenditure for the third regulatory period was found to be prudent and efficient.

In relation to the reprioritisation of expenditure during the period, the Regulator recognises the fluid nature of capital projects and of water utilities' (including TasWater's) capital programs and the need to reprioritise due to internal and external factors, notwithstanding that reprioritisation of expenditure must meet the prudence and efficiency tests.

The Regulator notes that in calculating the RAB values, TasWater has used actual capex for the third regulatory period, and therefore no reduction in the RAB is required for the fourth regulatory period to clawback the underspend and ensure TasWater only receives a return on capex it has actually incurred.

4.8 Review of proposed capex for the fourth regulatory period

4.8.1 CCGUS' findings on prudence and efficiency

CCGUS reviewed 15 of TasWater's major capital projects/programs for the fourth regulatory period. For each of these sample projects, CCGUS relied on the information set out in TasWater's proposed PSP and information supplied by TasWater in response to information requests to demonstrate the application of its decision-making processes.

Where CCGUS was unable to determine an efficient level of expenditure for a project, this expenditure has been categorised as "at risk", and is included in CCGUS' "expenditure ceiling" which takes into account CCGUS' recommended adjustments to TasWater's proposed capex.

Descriptions of each of these projects and programs and the detailed findings are provided in Section 3.6.2 of CCGUS' Draft Report. CCGUS' findings on prudence and efficiency are summarised in Table 4.3 below.

CCGUS' detailed project reviews concluded that \$24.0 million of expenditure should not be included in TasWater's RAB as a result of the application of the prudence and efficiency tests. Further, \$139.5 million was considered to be "at risk" pending the provision of additional information. CCGUS further recommended that the \$139.5 million be included in capital expenditure estimates for the

fourth regulatory period, but be subject to an ex-post review where expenditure not deemed to be prudent and efficient would be removed from the RAB as part of the price investigation for the fifth regulatory period.²⁷

Table 4.3 Summary of CCGUS' findings on prudence and efficiency for sampled capex projects

Project / Program	Prudent?	Efficient?
Water		
North West Water Supply (NWS) Strategy (previously Forth WTP Upgrade)	✓	✓
Bryn Estyn WTP Major Upgrade	✓	✓
Launceston Water Supply Surety	✓	x ¹
Water Mains Renewal Program	✓	✓
Metering Program	✓	✓
Sewerage		
Launceston Sewer Improvement Plan (LSIP)	✓	x ¹
Macquarie Point Sewer Treatment Plant Relocation	✓	x ¹
Hobart Sewer Improvement Plan	✓	x ¹
Sewer Treatment Plant Renewals Program (including mains)	✓	✓
Pardoe Sewer Improvement Plan	✓	x ¹
Dual function		
Non-network IT	✓	✓
IT business initiatives	x	x
Non-network other - Fleet	✓	x ¹
SCADA Program	✓	✓

Note: 1. CCGUS recommended that *some* expenditure not be included as efficient for these projects/programs.

²⁷ CCGUS' Draft Report, Tables 3-71 and 3-72, page 205.

4.8.2 CCGUS' findings on deliverability

In relation to the deliverability of TasWater's proposed capex program (and noting the substantial additional third party financed capex estimated at \$296 million for the fourth regulatory period), CCGUS found that:

- TasWater and the CDO are very aware of the potential constraints which may arise within Tasmania with respect to contractor availability. Ultimately it is only possible for TasWater to seek to reduce the risk of delivery constraints arising from supply side issues.
- It will be more evident whether there is a concern for capex delivery around the mid-point of the fourth regulatory period, at which time the Review Team recommends continuation of regular reporting by TasWater to the Regulator on its capex performance, as has been the recent approach.²⁸

CCGUS identified that while TasWater's recently improved capital planning and delivery systems and processes give some confidence in its ability to deliver a significantly larger proposed capital program, some concerns remain regarding available capacity within the local construction contractor market.²⁹

CCGUS also concluded that TasWater's flexible procurement processes and regionalisation of projects, alongside hands-on and proactive project management techniques used by the CDO, support the expansion of the local contractor market from both a capability and capacity point of view, maximising the chances of efficient delivery of a large capital program.³⁰

4.9 Regulator's draft assessment - fourth regulatory period

4.9.1 Prudency and efficiency findings

In relation to "at risk" expenditure, the Regulator notes that the two largest projects, the Hobart Sewer Improvement Plan and the Launceston Sewer Improvement Plan, are in the early stages of the capital planning process. As a result, strategic business cases and detailed business cases are yet to be developed, and therefore, detailed information about those projects could not have been available for CCGUS' review.

The Regulator does not consider that information deficiencies should be used as the basis for reducing TasWater's proposed capex, particularly where projects are in the early stages and information is not yet available.

Over the course of the fourth regulatory period, much of this information is expected to become available and these projects will have progressed. When the next price investigation is conducted, the Regulator will be well placed to assess, ex post, whether this capex has been prudent and/or efficient.

4.9.2 Deliverability

The Regulator notes TasWater's very large capital program for the fourth regulatory period. The Regulator intends reducing TasWater's proposed annual capital expenditure allowance by five per cent or a total of \$45 million over the fourth regulatory period.

²⁸ CCGUS' Draft Report, pages 66-67.

²⁹ Ibid, page 66.

³⁰ Ibid, page 9.

The Regulator acknowledges and accepts CCGUS' findings with respect to the potential for the CDO to deliver the major projects. However, the Regulator notes that many delays to major projects have been due to factors that are largely or wholly outside TasWater's control. The Regulator considers that, over the fourth regulatory period, there is a strong likelihood that some planned capex will not proceed as planned due to factors that are, at least in part, outside TasWater's control.

The Regulator intends to continue to require six monthly progress reports from TasWater on its capital program in accordance with current practice.

4.9.3 Pioneer water supply

In early 2020, the Regulator advised the Director of Public Health that it intended to review the prudence and efficiency of TasWater's proposal to address the issues with the water supply at the township of Pioneer in the State's north east.

The Regulator's review of the detailed business case for this project found:

- the project is forecast to cost \$4.7 million (ie in excess of \$110 000 per connection); and
- TasWater is yet to reach agreement with Tasmanian Irrigation to access the water required to supply Pioneer via the proposed pipeline.

Given TasWater's obligations as they relate to water supply at Pioneer, the Regulator is satisfied that the preferred option of providing reticulated water supply appears sound and, according to the analysis set out in the detailed business case, delivers the best overall outcomes.

On this basis, the Regulator considers that the proposed expenditure is prudent and efficient and intends to accept TasWater's proposal. As with many other projects, it likely there will be an ex-post review of the expenditure as part of the next pricing investigation.

4.9.4 TasWater's capex allowance for the fourth regulatory period

The Regulator notes that CCGUS recommended adjustments to proposed capex on individual projects and has treated other proposed capex as "at risk" subject to the provision of additional information.

However, the Regulator considers it is more appropriate to make a global adjustment to TasWater's proposed regulated capex, rather than adjusting proposed expenditure on individual projects. This, recognises the fluid nature of TasWater's capital program as evidenced in previous regulatory periods where TasWater has reprioritised its expenditure in response to internal and external factors.

Due to the Regulator's concerns about the size of TasWater's capital program and the issues identified by CCGUS regarding the efficiency of some proposed capex, the Regulator intends to not accept five per cent of TasWater's proposed regulated capex in each year of the fourth regulatory period.

The Regulator expects that capex undertaken during the fourth regulatory period, particularly capex assessed as "at risk" by CCGUS, will be examined in depth under the prudence and efficiency criteria in the next price investigation. Conversely, if over the fourth regulatory period, TasWater reprioritises expenditure on other projects or programs not assessed as part of this price investigation, these will be assessed against the prudence and efficiency criteria by the Regulator in the next investigation.