IPART Independent Pricing and Regulatory Tribunal | NSW

Review of Central Coast Council water prices – How we set the revenue level

Technical Paper

May 2022

Water »

Tribunal Members

The Tribunal members for this review are:

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The Independent Pricing and Regulatory Tribunal (IPART)

Further information on IPART can be obtained from IPART's website.

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Contents

1 Our decision is to set CCC Water's required revenue at $810 million

IPART sets the maximum prices Central Coast Council can charge its customers for the water, wastewater and other services provided by it as a Water Supply Authority.

IPART also sets the maximum percentage by which Central Coast Council may increase its general income each year through the local government rate peg or special variations.

To ensure it is clear which of Central Coast Council's responsibilities IPART is referring to, throughout this report:

- we refer to the Central Coast Council's functions as a Water Supply Authority under the *Water Management Act 2000 (NSW)* as '**CCC Water**'
- we refer to the Central Coast Council's local government functions under the *Local Government Act 1993 (NSW)* as '**the council**'.

Further information is available in our *Technical Paper – Regulatory background*.

We reviewed CCC Water's prices for its water-related services and have made decisions on the maximum prices it can charge over the 4 years from 1 July 2022 to 30 June 2026.[a] Our review only considers prices and costs related to CCC Water. It does not consider those related to the council's general activities for which it charges local government rates, levies and other charges.[b]

Our prices allow CCC Water to deliver good quality water and improve services to the community – now and in the future. This Technical Paper focuses on how we set the revenue level we consider CCC Water needs to deliver services efficiently.

Our goal is to ensure CCC Water's customers pay a fair price for safe, reliable services of an acceptable quality. Our role is to do this by setting maximum prices for its water, wastewater and stormwater services based on what the costs of providing these services should be, if it runs its operations as a Water Supply Authority efficiently.

We used a building block approach to calculate these efficient costs. We call this the notional revenue requirement (NRR), or the required revenue, which is the amount of revenue CCC Water needs each year to provide its services. It represents our decisions on the amount CCC Water needs to spend to provide those services at least cost and best value for money.

[a] As part of our review we must consider certain matters under the *IPART Act 1992 (NSW)* – detailed information is available in our *Technical Paper – Regulatory background*.

[b] IPART can also review increases to the council's income from rates, but this is a separate review through the special variation process.

The building block approach involves calculating CCC Water's required revenue as separate cost allowances, including:

- an operating allowance to cover CCC Water's day-to-day operating costs
- a capital allowance to cover:
  - a return on the assets CCC Water uses to provide its services
  - a return of these assets (we call this regulatory depreciation)
- a tax allowance which approximates the tax liability for a comparable commercial business
- a working capital allowance, which represents the holding cost of net current assets.

We have also adjusted CCC Water's required revenue by:

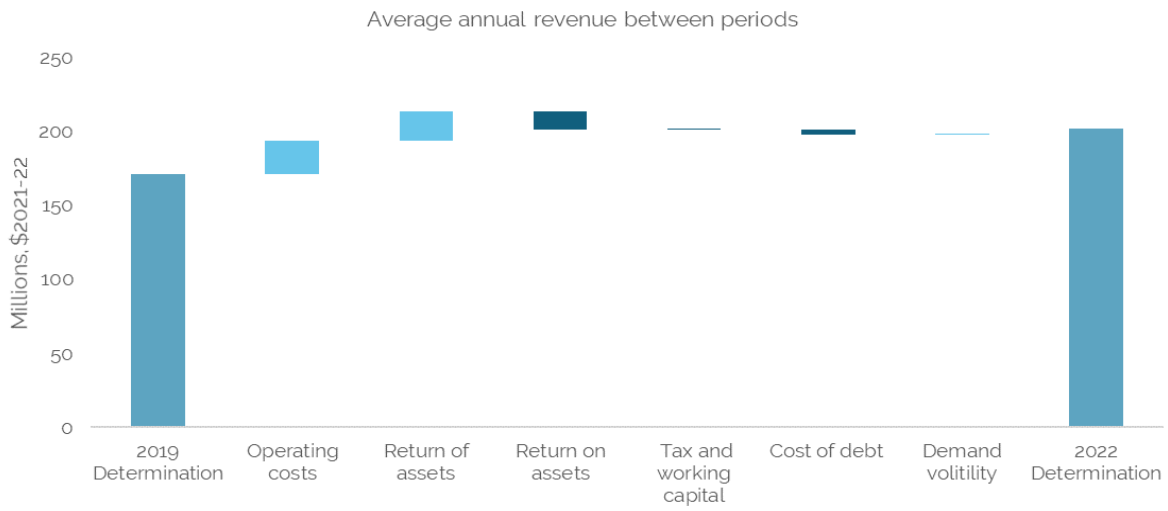
- adding an allowance for the demand volatility allowance mechanism (DVAM) which compensates CCC Water for lower water sales than we used to set prices in the previous determination
- adding an allowance to cover the costs to CCC Water of providing the pensioner rebate
- subtracting non-regulated revenue to account for any revenue that CCC Water will receive from other sources.

To calculate the operating and capital allowances, we engaged an expert consultant to review CCC Water's expenditure. This involved analysing historical costs and using benchmarking to recommend an efficient level of expenditure. The expenditure review also considered CCC Water's business systems and services. See our *Information Paper – Operating and Capital Costs* for more details on the outcomes of our expenditure review process including our decisions on efficient expenditure. Our expert consultant report is available online.[1]

Once we made decisions on each cost allowance, we added them together to give the total efficient costs CCC Water should incur in delivering its water services. In general, we set water prices to recover this required revenue.

Under our decisions, CCC Water's NRR or required revenue is $810 million over the 4 years from 1 July 2022 to 30 June 2026. This is 7% less than CCC Water's proposed NRR. The difference between the average annual NRR from the 2019 Determination and the average annual NRR from the 2022 Determination is shown in Figure 1.1, along with the components that have changed over that time.

Figure 1.1 IPART Decision – CCC Water NRR 2022-26 ($million, $2021-2022)



Source: IPART analysis.

This Technical Paper explains:

- our decisions to set CCC Water's prices for 4 years and to continue to use price caps to set its water, wastewater and stormwater prices
- our decisions on CCC Water's required revenue, and each of the cost allowances it includes
- our decision to set prices to recover the total required revenue, including our view on how this would affect CCC Water's financial sustainability over the 4 years[c]
- our view on how this would affect inflation over this period.

[c] We discuss the impacts of this on customers in our *Information Paper – Prices and bill impacts*.

2 We set prices for 4 years using price caps

Before we applied the building block approach, we made decisions on:

- the length of the determination period — i.e. how many years to set CCC Water's prices for
- the form of regulation or price control — i.e. the framework we used to regulate its prices.

Our decisions are:

11. To adopt a 4-year determination period from 1 July 2022 to 30 June 2026.

12. To set maximum prices for CCC Water's water services in each year of the 2022 determination period (a price cap).

2.1 We set prices for a 4-year determination period

In general, the length of the determination period can be between one and 5 years. To decide on the appropriate length, we considered a range of factors. For this review, 4 years is an appropriate length because:

- A 4-year approach balances price stability and forecasting uncertainty. On balance, we consider that a 4-year determination period ensures stability and certainty for CCC Water to deliver needed business and service changes while also providing an incentive for CCC Water to become more efficient and effective in its service delivery.
- A 4-year determination period best balances forecasting uncertainty and regulatory burden. A 4-year approach will provide CCC Water with approximately 2.5 years to collect better information, improve its levels of service and achieve process efficiencies before the start of the next IPART review. We consider this period to be long enough to start to embed required business and service changes, without jeopardising short-term service delivery.

CCC Water expressed support for a 4-year determination period.[2] We did not receive any other stakeholder feedback on the length of the determination period.

2.2 We continue to set price caps

We consider price caps provide transparency and pricing certainty to customers. They also ensure (to the extent practical) that prices reflect efficient costs and (where appropriate) signal the long-run costs of providing the services.

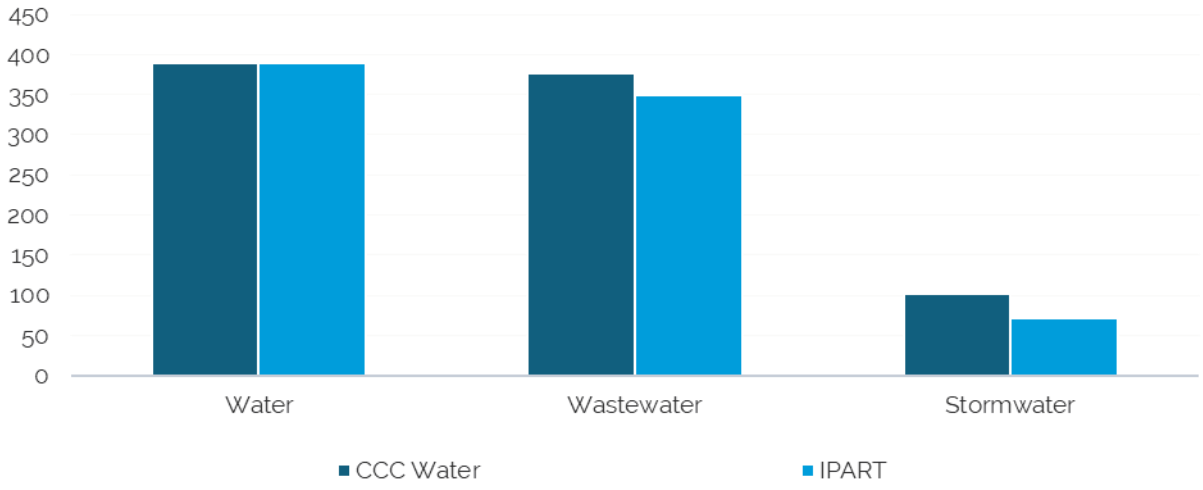
We did not receive any stakeholder feedback on our use of price caps.

3 We used the building block approach to set CCC Water's required revenue

We calculated CCC Water's required revenue using the building block approach. Figure 3.2 provides an overview of this approach, how we used it to set prices and where to find further information on our final decisions for each component (or building block).[d]

The annual sum of these building blocks is the NRR or required revenue and represents our assessment of the total efficient costs CCC Water should incur in delivering its water services. We used this approach to calculate a separate NRR for water, wastewater and stormwater services, and set prices for each service to recover its respective NRR (Figure 3.1). This ensures the prices for each service reflect the cost of providing that service, and customers who do not have access to one or more of the services do not pay for those services.

Figure 3.1 CCC Water's proposed NRR by service compared with IPART decisions ($million, $2021-2022)

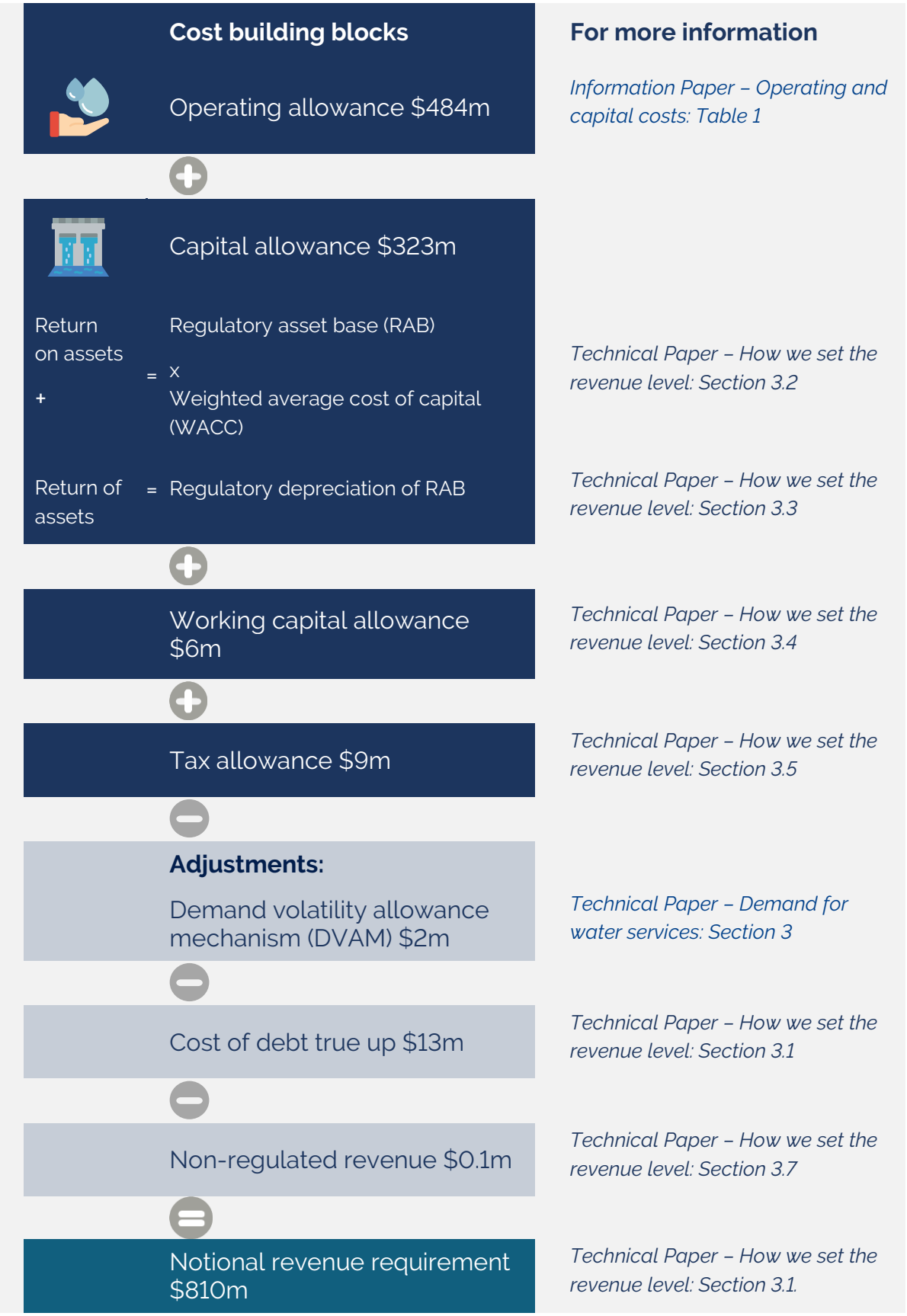


Source: CCC Water, *pricing proposal to IPART – Technical Paper 6 - Revenue requirements and financial metrics*, September 2021, p 18; IPART analysis.

We then set a target revenue for each year – that is, the actual revenue we expect CCC Water to generate from prices and charges for that year. To determine the target revenue, we considered several factors, including implications on price levels, the rate at which they would change, and any impacts on CCC Water and customers.

[d] This figure does not sum due to rounding.

Figure 3.2 The building block



3.1 CCC Water's required revenue is $810 million

Our decision is:

13. To set the notional revenue requirement at $810 million over the 2022 determination period as shown in Table 3.1 in our *Technical Paper – How we set the revenue level*.

We have decided to set CCC Water's total NRR at $810 million over the 2022 determination period, which is $57 million, or 7% lower than its proposed revenue requirement of $867 million. Table 3.1 compares our decisions on NRR with CCC Water's proposal.

Table 3.1 IPART decision on CCC Water's total NRR for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed					
NRR	201.3	215.6	224.9	225.6	867.4
IPART decision					
Operating expenditure	120.0	121.0	121.2	121.6	483.7
Return of assets	37.0	37.8	38.9	40.1	153.7
Return on assets	41.3	41.6	42.4	43.5	168.9
Tax allowance	2.3	2.2	2.1	2.1	8.7
Working capital allowance	1.5	1.4	1.5	1.4	5.8
Cost of debt true up	-12.5	0.0	0.0	0.0	-12.5
DVAM adjustment	2.1	0.0	0.0	0.0	2.1
Total NRR	191.6	204.0	206.1	208.7	810.3
Difference: CCC Water proposed and IPART decision (%)	-4.8%	-5.4%	-8.4%	-7.5%	-6.6%
Difference: CCC Water proposed and IPART decision ($)	-9.7	-11.6	-18.8	-16.9	-57.1

Note: In this table, operating expenditure includes debt raising costs, return on assets includes return on working capital, and return of assets is a mid-year figure.
Source: IPART analysis.

3.2 CCC Water's return on assets is $169 million

Our decision is:

14. To calculate the return on assets using:
    - an opening regulatory asset base of $1,481 million for 2022-23, and the regulatory asset base for each year as shown in our *Technical Paper – How we set the revenue level*
    - CCC Water's reported historical asset disposals for the 2019 determination period as shown in Table 3.4 in our *Technical Paper – How we set the revenue level*
    - CCC Water's forecast asset disposals for the 2022 determination period as shown in our *Technical Paper – How we set the revenue level*
    - a real post-tax weighted average cost of capital of 2.8% to calculate the return on CCC Water's assets
    - a sampling date of 31 March 2022 for market observations
    - a true-up for differences between the forecast and actual cost of debt over the 2022 determination period in the 2026 Determination.

We included an allowance for a return on assets in the revenue requirement, to account for the opportunity cost of capital invested to provide regulated services. Our approach ensures the Water Supply Authority can continue to make efficient capital investments in the future. We calculated the return on assets by multiplying the value of the regulatory asset base (RAB) over the 2022 determination period by an efficient rate of return. As in previous reviews, we determined the rate of return using an estimate of the WACC.

3.2.1 CCC Water's opening RAB for the 2022 determination period is $1,481 million

The RAB represents the value of the infrastructure on which we consider CCC Water should earn a return. In that respect, the RAB is essentially our view of the value of the business as a whole. The RAB is quite different from how CCC Water is required to record the value of its assets in its annual financial statements. The total value of the assets in those statements is based on how much it would cost to replace them all, adjusted for how far through their useful lives they are.

Our RAB roll-forward calculations for the 2022 determination period are shown in Table 3.2 and Table 3.3. We calculated the RAB in each year of the 2022 determination period by rolling forward the RAB to 2025–26 by:

- adding prudent and efficient forecast capital expenditure to the opening RAB over the period (*Information Paper – Operating and capital costs*)
- deducting:
  - the regulatory value of forecast asset disposals (Table 3.2)
  - regulatory depreciation (section 3.3).

Table 3.2 IPART decision on CCC Water's RAB roll-forward for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26
Opening RAB	1,481	1,473	1,503	1,531
Plus: Efficient capital expenditure	30	68	67	89
Less: Regulatory depreciation	37	38	39	41
Less: Asset disposals	0	0	0	0
Closing RAB	**1,473**	**1,503**	**1,531**	**1,580**

Note: In this table, regulatory depreciation is an end-of-year figure.
Source: IPART analysis.

Table 3.3 IPART decision on CCC Water's RAB roll-forward values by service for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26
Water	664	681	682	685
Wastewater	676	684	706	746
Stormwater	133	139	143	148
Total	**1,473**	**1,503**	**1,531**	**1,580**

Source: IPART analysis.

We used our forecast RAB to generate the return on assets and allowance for depreciation over the 2022 determination period.

We calculated the opening RAB for 2022–23 by rolling the RAB forward over the 2019 determination period. We then made the following adjustments for the relevant periods to 30 June 2022, including:

- adding prudent and efficient capital expenditure (*Information Paper – Operating and capital costs*)
- deducting regulatory depreciation (section 3.3)
- deducting the regulatory value of asset disposals (Table 3.4)
- adding the annual indexation of the RAB.

Our calculation of the opening RAB for the 2022 determination period is set out in Table 3.4.

Table 3.4 RAB calculation for CCC Water's for the 2019 determination period ($millions, $nominal)

	2019-20	2020-21	2021-22
Opening RAB	1,267	1,302	1,389
Plus: Efficient capital expenditure	56	55	52
Less: Regulatory depreciation	17	18	20
Less: Asset disposals	0	0	0
Plus: Indexation	-4	51	59
Closing RAB	**1,302**	**1,389**	**1,481**

Source: IPART analysis.

3.2.2 We set the WACC at 2.8% and CCC Water's total return on assets at $169 million

We used our standard approach to calculate the WACC and made a final decision to apply a real post-tax WACC estimate for the duration of the 2022 determination period. Table 3.5 shows the resulting return on assets (i.e. WACC% x RAB), based on the RAB values set out in section 3.2.1, and our decision to apply a real post-tax WACC of 2.8%.

Table 3.5 IPART decision on return on assets for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed	48.2	49.3	50.7	52.0	200.2
IPART decision	41.3	41.6	42.4	43.5	168.9
Difference	-6.9	-7.7	-8.3	-8.5	-31.3
Difference (%)	-14%	-16%	-16%	-16%	-16%

Source: IPART analysis.

Table 3.6 summarises our WACC calculation. The following sections explain key components and decisions included in this calculation.

Table 3.6 WACC calculation for CCC Water using IPART's standard approach

	Step 1 – Market data		Step 2 – WACC range		
	Current	Long term	Lower	Mid-point	Upper
Nominal risk-free rate	1.70%	2.50%			
Inflation	2.60%	2.60%			
Implied debt margin	2.30%	2.40%			
Market risk premium	8.2%	6.0%			
Debt funding	60%	60%			
Equity funding	40%	40%			
Total funding (debt + equity)	100%	100%			
Gamma	0.25	0.25			
Corporate tax rate	30%	30%			
Effective tax rate for equity	30%	30%			
Effective tax rate for debt	30%	30%			
Equity beta	0.70	0.70			
Cost of equity (nominal post-tax)	7.4%	6.7%			
Cost of equity (real-post tax)	4.7%	4.0%			
Cost of debt (nominal pre-tax)	4.0%	4.9%			
Cost of debt (real pre-tax)	1.4%	2.2%			
Nominal vanilla (post-tax nominal) WACC	5.4%	5.6%	5.4%	5.5%	5.6%
Post-tax real WACC	**2.7%**	**2.9%**	**2.7%**	**2.8%**	**2.9%**
Pre-tax nominal WACC	6.2%	6.4%	6.2%	6.3%	6.4%
Pre-tax real WACC point estimate	3.5%	3.7%	3.5%	3.6%	3.7%

Source: IPART analysis.

We set a mid-point of the current and long-term WACC values

Under our approach, we estimate one WACC based on current market data and one based on long-term average data. When our uncertainty index — which indicates the level of volatility in capital markets — is within one standard deviation of its mean value, we select the mid-point of the current and long-term WACC values. The uncertainty index is currently within this range.

We sampled all market observations as of 31 March 2022

We sampled market observations to the end of March 2022, which is the latest available whole month. For earlier years in the trailing average calculation of the historic cost of debt we also sampled to the end of March in each year. We chose that date so that the Final Report WACC would sample all years in consistent months.

We used our standard approach for forecasting inflation

Our inflation forecast is produced using IPART's standard approach, with the Reserve Bank of Australia's 1-year ahead forecast sourced from the February 2022 Statement of Monetary Policy[3]. We have adopted a 4-year geometric mean in our inflation estimate. This is consistent with our standard approach to average inflation forecasts over the same number of years as there are in the determined regulatory period.

This approach is consistent with the approach we applied in our 2019 price review.

We used standard water industry beta and gearing assumptions

We have adopted IPART's standard water industry assumptions for beta and gearing of 0.7 and 60% respectively. The same assumptions were used in the 2019 CCC Water Determination.

We have not applied a transition to the trailing average

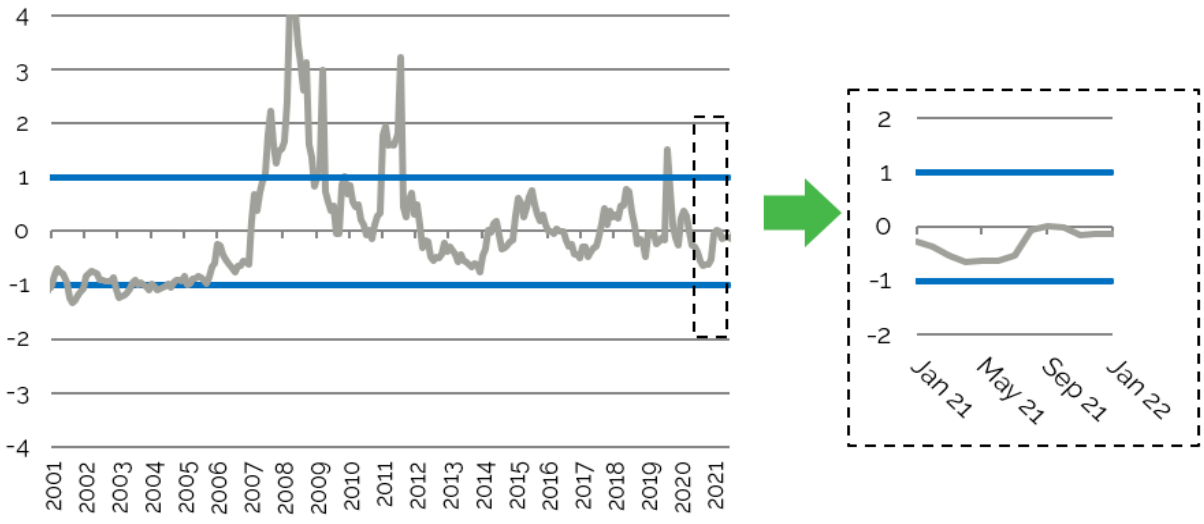
Our 2018 review of the WACC method introduced a decision to estimate both the long-term and current cost of debt using a trailing average approach, which updates the cost of debt annually over the regulatory period.

The transition to the trailing average was applied in CCC Water's previous determination in 2019, so we now consider that CCC Water is fully transitioned.

We tested the uncertainty index for market observations

We tested the uncertainty index for market observations to the end of March 2022. It was within the bounds of plus and minus one standard deviation of the long-term mean value of zero (Figure 3.3). Therefore, we maintained the default 50%/50% weighting between current and historic market estimates of the cost of debt and the cost of equity.

Figure 3.3 IPART's uncertainty index



Source: Refinitiv and IPART calculations

We assumed a tax rate of 30%

We assumed the Benchmark Equivalent Entity is a large public water utility. The scale economies that are important to firms of this type suggest that the Benchmark Equivalent Entity would likely be well above the turnover threshold at which a firm becomes ineligible for a reduced corporate income tax rate. Therefore, we used a tax rate of 30%.

We used a real post-tax WACC

Although we are able to determine the type of WACC to apply based on the unique considerations of each price review, using a real post-tax WACC is our current approach and has been since 2013. We are satisfied that applying a post-tax WACC more closely estimates tax paid by a benchmark firm than applying a pre-tax WACC using the statutory tax rate. For this review we consider it appropriate to use this approach of setting a real WACC and indexing the asset base for inflation.

We set an end-of-period true-up to account for annual changes in the WACC

The WACC reflects parameters that change every year. As new tranches of debt are introduced to the trailing averages, the oldest tranches drop out.

Our decision is to apply a true-up of annual WACC adjustments in the 2022 Determination. In our 2018 review of the WACC methodology, we decided at each price review we would consider whether to:

- update prices annually to reflect the updates in the WACC annually, or
- use a regulatory true-up at the next period, which we would pass through to prices at the beginning of the next determination period.

These options are equivalent in present value terms to customers and CCC Water.

We decided to undertake the regulatory true-up at the next price review instead of annual adjustments. This approach provides greater certainty to customers about their prices over the determination period – that is, changes in prices will be impacted by inflation only, rather than also being impacted by annual changes in the cost of debt. Further, provided the true-up is smoothed over the next determination period, we do not expect price volatility to be any more likely in the next determination period compared with an annual update.

3.3 CCC Water's regulatory depreciation is $154 million

Our decisions are:

15. For the purpose of calculating CCC Water's allowance for return of assets, to:
    - calculate regulatory depreciation using a straight-line method
    - set the asset lives for existing and new assets as shown in Table 3.8 and Table 3.9 in our *Technical Paper – How we set the revenue level*.

16. To set CCC Water's allowance for return of assets at $154 million over the 2022 determination period as shown in Table 3.7 in our *Technical Paper – How we set the revenue level*.

We included an allowance for regulatory depreciation in the revenue requirement to ensure the capital invested in regulatory assets is returned over the useful life of each asset. We calculated this allowance by determining the appropriate asset lives for the assets in CCC Water's RAB and the appropriate depreciation method to use.

Table 3.7 IPART decision on CCC Water's allowance for return of assets for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed	27.9	29.9	31.9	33.2	122.9
IPART decision	37.0	37.8	38.9	40.1	153.7
Difference	9.1	7.9	7.0	6.9	30.8
Difference (%)	33	26	22	21	25

Note: The allowance for return of assets is a mid-year figure (i.e. the RAB roll forward depreciation figure is discounted by half a year of WACC).
Source: IPART analysis.

3.3.1 We used straight-line depreciation to calculate regulatory depreciation

As done for previous determinations and decisions, we used the straight-line depreciation method. Under this method, the assets in the RAB are depreciated by an equal value in each year of their economic life. We consider this method is superior to alternatives in terms of simplicity, consistency and transparency.

3.3.2 We changed our approach to setting asset lives for existing and new assets

We typically calculate the remaining lives of existing assets by rolling forward our previous determination to incorporate new efficient assets and accounting for asset disposals. However, CCC Water proposed to revise the asset lives for its existing assets, and new assets to be created over the 2022 determination period. CCC Water's proposed asset lives are shorter than those used to set prices in the 2019 determination period, and as such would lead to a significant increase in depreciation. We agree that CCC Water's current asset lives are too long.

Using the straight-line depreciation method means that CCC Water's proposed shorter asset lives would lead to a significant increase in depreciation, leading to a higher depreciation allowance. We agree with CCC Water that the current asset lives lead to a depreciation rate that is below the rate at which assets are being consumed. This has led to an under-recovery of capital and growth in the RAB from asset renewals. More accurate asset lives mean that the resulting total depreciation allowance will better match the actual profile of asset consumption through time. This means that prices are cost-reflective, return of capital is efficient and intergenerational equity is maintained.

Our decisions on asset lives are shorter than those proposed by CCC Water. These decisions are set out in Table 3.8 and Table 3.9. This is mainly because we used a different calculation method to CCC Water (weighted average useful lives, weighted by depreciation) as it is more cost reflective, rather than weighted by value as proposed by CCC Water.

Relative to CCC Water's proposed approach to asset lives and depreciation, our decisions result in an increase in the NRR of around $36 million over 4 years, leading to an increase in the typical residential bill of around $62 per year, relative to CCC Water's proposal.

Table 3.8 lists the starting asset lives for existing assets included in the RAB. Table 3.9 lists the new asset lives for existing assets included in the RAB.

In its submission to our Draft Report, CCC Water accepted our approach to calculating regulatory depreciation.[4]

Table 3.8 IPART decision on asset lives for existing assets for the 2022 determination period (years)

	CCC Water proposed	IPART decision	Difference (years)	Difference (%)
Water	51	37	-15	-29%
Wastewater – North	47	38	-9	-19%
Wastewater – South	46	37	-8	-18%
Stormwater	60	59	-1	-2%

Source: IPART analysis.

Table 3.9 IPART decision on asset lives for new assets for the 2022 determination period (years)

	CCC Water proposed	IPART decision	Difference (years)	Difference (%)
Water	69	60	-8	-12%
Wastewater – North	61	58	-3	-5%
Wastewater – South	55	57	2	4%
Stormwater	94	91	-3	-3%

Source: IPART analysis.

3.4 CCC Water's working capital allowance is $6 million

Our decision is:

17. To set the working capital allowance for the 2022 determination period as shown in Table 3.10 in our *Technical Paper – How we set the revenue level*.

The working capital allowance component of the NRR represents the return the business could earn on the net amount of working capital it requires each year to meet its service obligations. It ensures the business recovers the costs it incurs due to the time delay between providing a service and receiving the money for it (i.e. when bills are paid).

In 2018, we developed a standard approach to calculate the working capital allowance, which can be found on our website. We applied the standard approach to this review.

The $6 million we allowed for the 2022 determination period represents the holding cost of net current assets (Table 3.10).

Table 3.10 IPART decision on CCC Water's working capital allowance for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed	1.5	1.3	1.4	1.4	5.5
IPART decision	1.5	1.4	1.5	1.4	5.8
Difference	0.0	0.1	0.1	0.0	0.3
Difference (%)	2%	10%	7%	2%	5%

Source: IPART analysis.

3.5 CCC Water's tax allowance is $9 million

Our decisions are:

18. To calculate the tax allowance using:
    - a tax rate of 30%
    - IPART's standard methodology.

19. To adopt the regulatory tax allowance as shown in Table 3.13 in our *Technical Paper – How we set the revenue level*.

We included an explicit allowance for tax because we use a post-tax WACC to estimate the allowance for a return on assets in the revenue requirement (Table 3.13). While CCC Water is tax exempt, our decision on the tax allowance aims to replicate the tax payable by an efficient benchmark business, to promote efficient prices.

The tax allowance is one of the last building block items we calculated because it depends on the NRR (excluding tax). Our decisions on the Tax Asset Base (TAB) are shown in Table 3.11 and Table 3.12.

Table 3.11 IPART decision on CCC Water's opening Tax Asset Base (TAB) at 1 July 2022

	Opening TAB ($ millions, $2021-22)	Remaining TAB lives (years)
Water	808	36.5
Wastewater	786	37.7
Stormwater	253	59.0
Total	1,847	133

Source: IPART analysis.

Table 3.12 IPART decision on CCC Water's TAB values for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26
Water	800	823	827	834
Wastewater	801	816	844	886
Stormwater	264	276	288	300
Total	**1,866**	**1,916**	**1,959**	**2,021**

Source: IPART analysis.

Table 3.13 IPART decision on CCC Water's tax allowance for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed	3.8	4.7	5.7	6.5	20.7
IPART decision	2.3	2.2	2.1	2.1	8.7
Difference	-1.5	-2.5	-3.6	-4.4	-12.0
Difference (%)	-39%	-54%	-63%	-68%	-58%

Source: IPART analysis.

We calculated the tax allowance for each year by applying a 30% statutory corporate tax rate. We applied our standard methodology to set the tax allowance.

Our tax allowance is not intended to recover CCC Water's actual tax liability over the determination period. Rather, it reflects the liability that a comparable commercial business would be subject to. Including this allowance is consistent with our aim to set prices that reflect the fully efficient costs a utility would incur if it were operating in a competitive market. It is also consistent with the principle of competitive neutrality – that is, that a government business should compete with private businesses on an equal footing and not have a competitive advantage due to its public ownership.

As shown in Table 3.13, our regulatory tax allowance is 58% lower than CCC Water proposed. This is mostly due to the relatively low amount of depreciation expense it included in calculating its tax allowance. Generally, the lower the level of this tax depreciation, the higher the regulatory tax allowance.

CCC Water's proposal included a higher level of revenue to cover its proposed regulatory depreciation, but only a very small increase in its proposed tax depreciation. This widening gap between the revenue it asked for to cover its regulatory depreciation and the amount it includes in its tax calculation leads to an increase in the proposed tax allowance. Under our decision, regulatory and tax depreciation have both increased at roughly the same rate and as such the tax allowance is more modest.

3.5.1 We considered non-cash capital contributions in calculating the tax allowance

Non-cash capital contributions (also known as Assets Free of Charge, or 'AFOC') are assets that utilities receive for free. Non-cash capital contributions do not affect the RAB, and utilities do not earn a return on or of those assets. However, comparable water utilities are required to pay tax equivalents on the value of non-cash capital contributions. As such, we included CCC Water's forecast AFOC as revenue in the calculation of the regulatory tax allowance building block. Table 3.14 below shows CCC Water's non-cash capital contributions.

Table 3.14 CCC Water's forecast non-cash capital contributions (AFOC) ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed	14.3	14.3	14.3	14.3	57.1
IPART decision	14.3	14.3	14.3	14.3	57.1
Difference ($)	0	0	0	0	0
Difference (%)	0	0	0	0	0

Source: IPART analysis.

3.6 CCC Water's allowance for pensioner rebates is $8 million

Our decision is:

20. To set an allowance for pensioner rebates for the 2022 determination period as shown in Table 3.15 in our *Technical Paper – How we set the revenue level*.

CCC Water provides pensioners with a reduction of 50% of the water supply service and water usage charges levied up to a maximum of $87.50 per annum. A further reduction of 50% of wastewater service and wastewater usage charges is levied up to a maximum of $87.50 (for residential customers only).

CCC Water is reimbursed by the NSW Government for 55% of this rebate, and as such pays 45% on its own. We set prices so this 45% is recovered from the whole customer base (including pensioners).

Table 3.15 IPART decision on CCC Water's allowance for pensioner rebates for the 2022 determination period ($millions, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed	1.89	1.89	1.89	1.89	7.5
IPART decision	1.92	1.92	1.92	1.92	7.7
Difference	0.03	0.03	0.03	0.03	0.1
Difference (%)	2%	2%	2%	2%	2%

Source: IPART analysis.

3.7 CCC Water's non-regulated revenue is $0.1 million

Our decision is:

21. To deduct non-regulated revenue from CCC Water's notional revenue requirement (NRR) for the 2022 determination period as shown in Table 3.16 in our *Technical Paper – How we set the revenue level*.

Non-regulated income is revenue earned from services not subject to IPART's price determination (i.e. non-monopoly services) but which are delivered using regulated assets. That is, it is derived from assets in the RAB, which are also used to deliver monopoly services. We generally share a portion of this with customers (using a 50-50 split) and remove that amount from the NRR.

We encourage water utilities to optimise the use of their assets and seek to generate revenue in ways other than from traditional services – provided this does not compromise the delivery of their core services. Sharing the revenue encourages utilities to pursue non-regulated revenue, while acknowledging that customers have paid for the regulated assets and should therefore share in some of the gains.

Before setting prices to recover the NRR, we subtracted a share of the revenue CCC Water is forecast to receive from non-regulated sources, for revenue made using regulated assets. This also ensures that the utility does not over-recover its efficient level of expenditure, and that customers do not pay too much.

Table 3.16 IPART decision on CCC Water's non-regulated revenue for the 2022 determination period ($'000s, $2021-22)

	2022-23	2023-24	2024-25	2025-26	Total
CCC Water proposed	25	25	25	25	100
IPART decision	25	25	25	25	100
Difference	0	0	0	0	0
Difference (%)	0	0	0	0	0

Source: IPART analysis.

4 We set prices using the NRR and assessed impacts

Once we calculated CCC Water's NRR, we then used it and our demand forecasts (see our *Technical Paper – Demand for water services*) to set a target revenue for each year of the 2022 determination period. The target revenue is the actual revenue we expect CCC Water to generate from prices and charges for that year.

In determining target revenue, we considered several factors, including implications on price levels, the rate at which they would change, and any impacts on customers and CCC Water.

Our decision is:

22. To set prices to recover the total NRR over 4 years, in present value terms.

In line with our usual practice, we decided to set prices to recover the total NRR by the end of the 2022 determination period (rather than to recover the annual NRR by the end of each year of this period). This approach smooths the impact of price changes over the period, reducing price volatility for customers, and revenue volatility for CCC Water.

This approach means the target revenue to be recovered in each year of the determination period will not equal the NRR in each year (Table 4.1). To ensure that CCC Water and customers do not benefit or lose from this arrangement, we set prices so that the target revenue expected to be received from prices equates to the NRR over the determination period, in 'present value' terms. That is, prices are set over the 4-year determination period so that the present value of the target revenue equals the present value of the NRR. The resulting prices are presented in our *Information Paper – Prices and bill impacts*.

Table 4.1 Comparison of target revenue and IPART decision on NRR ($million, $2021-22)

	2022-23	2023-24	2024-25	2025-26	4-year NPV[a]
NRR	192	204	206	209	755
Target revenue from prices	200	202	203	205	755
Difference	9	-2	-3	-4	0

a. Sum over the 4 years on a present value basis, assuming a discount rate equal to the real post-tax WACC (2.8%).

Source: IPART analysis.

4.1 We considered customer impacts of our prices

We have considered our final pricing decisions, prices and bill impacts on customers in our *Information Paper – Prices and bill impacts*.

4.2 We considered impacts on CCC Water's financial sustainability

In setting prices for CCC Water, we considered the financial sustainability of CCC Water resulting from our pricing decisions. We did this by undertaking a financeability test (or tests), which tells us whether the prices we have set are likely to be consistent with CCC Water being financially sustainable over the 2022 determination period. We note that this financeability test is only for CCC Water and is not an assessment of the council's other or consolidated activities.

4.2.1 We have undertaken 2 financeability tests for CCC Water

The financeability test is based on the approach outlined in IPART's 2018 *Review of our financeability test* (2018 Financeability Review).[5] For CCC Water, we have undertaken the assessment based on 2 tests, namely:

1. A **benchmark test**, which gives us key information about CCC Water's financial performance and position if it were to match our key decisions on efficiency. These decisions include operating costs, capital costs, the interest rate on its borrowings and our assessment of how much debt a well-structured utility would have.
2. An **estimated test**, which examines the estimated impact on financeability of moving away from some of the decisions we use in the benchmark test.

Both tests use similar inputs except for the assumptions on the amount of debt CCC Water would have, and the cost of servicing that debt through interest payments. For the benchmark test, we used the gearing and cost of debt based on our WACC estimate (see section 3.2.2). For the estimated test, we used the council's best estimate of the actual debt CCC Water has and the cost of debt CCC Water currently incurs.

The benchmark test for CCC Water

Table 4.2 Benchmark financeability test results based on our decisions

	Target ratio	2022-23	2023-24	2024-25	2025-26
Real interest cover					
Benchmark test	**>2.2x**	4.6	4.4	5.3	5.3
Does it meet the target?		yes	yes	yes	yes
Real FFO over debt[a]					
Benchmark test	**>7.0%**	6.2%	6.1%	7.8%	7.8%
Does it meet the target?		no	no	yes	yes
Real gearing					
Benchmark test	**<70%**	60.0%	60.0%	60.0%	60.0%
Does it meet the target?		yes	yes	yes	yes

a. Funds from operations
Note: We calculated the indicators based on our NRR and pricing decisions, using a WACC of 2.8%.
Source: IPART analysis.

This analysis shows that the prices we have set for CCC Water comfortably meet or exceed our benchmarks across the determination period.

The estimated test for CCC Water

Using the council's estimate of the gearing and cost of debt for CCC Water, the result shows all ratios significantly exceed targets for all years of the 2022 determination period (Table 4.3). This is largely because CCC Water actually has a significantly lower level of debt than we gave our efficiently benchmarked utility.

Table 4.3 Estimated test results based on our decisions

	Target ratio	2022-23	2023-24	2024-25	2025-26
Real interest cover					
Benchmark test	**>1.8x**	7.1	8.1	8.7	8.3
Does it meet the target?		yes	yes	yes	yes
Real FFO over debt[a]					
Benchmark test	**>6.0%**	29.8%	31.5%	35.2%	31.1%
Does it meet the target?		yes	yes	yes	yes
Real gearing					
Benchmark test	**<70%**	11.0%	11.9%	12.6%	14.3%
Does it meet the target?		yes	yes	yes	yes

a. Funds from operations
Note: We calculated the indicators based on our NRR and pricing decisions, using a WACC of 2.8%.
Source: IPART analysis.

4.2.2 The prices we have set for CCC Water provide for it to operate on a sustainable basis

Overall, our analysis shows that if CCC Water meets our decisions on efficient costs, prices should ensure that CCC Water remains financeable over the 2022 determination period.

We note however, the importance of having good business practice and systems in place. The council and CCC Water need to ensure their continued focus and investment on these matters in order to support its financial sustainability.

4.3 We also considered impacts on inflation

Under section 15 of the *IPART Act 1992 (NSW)*, we are required to consider the effect of our determinations on general price inflation. As the Australian Bureau of Statistics (ABS) does not collect data on CCC Water's water and wastewater impact on the consumer price index (CPI), we have derived an estimate of CCC Water's impact on general price inflation using the ABS estimate of Sydney Water's impact on the (CPI).

Currently, water and wastewater prices in Sydney contribute 0.79% towards the CPI.[6] Using CCC Water's customer numbers (around 340,000 to 350,000) relative to Sydney Water's (estimated to be around 2,162,500 in 2022-23[7]) we estimate the relative contribution of CCC Water's water and wastewater prices towards the general price level to be about 0.06%.

Under our prices, CCC Water's annual average water and wastewater bill for a residential customer consuming 170 kL per year increases by 8.2% per year.[e] Despite this moderate increase, we expect that the impact on general price inflation will be negligible.

[e] Excluding the impact of inflation from 2023-24 onwards.

5 List of decisions in this Technical Paper

Our final decisions included in this Technical Paper are presented below. A complete list of all our Final Report decisions and recommendations is included in our *Final Report Summary*.

Our decisions in this Technical Paper are:

11.	To adopt a 4-year determination period from 1 July 2022 to 30 June 2026.	4
12.	To set maximum prices for CCC Water's water services in each year of the 2022 determination period (a price cap).	4
13.	To set the notional revenue requirement at $810 million over the 2022 determination period as shown in Table 3.1 in our *Technical Paper – How we set the revenue level*.	7
14.	To calculate the return on assets using: – an opening regulatory asset base of $1,481 million for 2022-23, and the regulatory asset base for each year as shown in our *Technical Paper – How we set the revenue level* – CCC Water's reported historical asset disposals for the 2019 determination period as shown in Table 3.4 in our *Technical Paper – How we set the revenue level* – CCC Water's forecast asset disposals for the 2022 determination period as shown in our *Technical Paper – How we set the revenue level* – a real post-tax weighted average cost of capital of 2.8% to calculate the return on CCC Water's assets – a sampling date of 31 March 2022 for market observations – a true-up for differences between the forecast and actual cost of debt over the 2022 determination period in the 2026 Determination.	8
15.	For the purpose of calculating CCC Water's allowance for return of assets, to: – calculate regulatory depreciation using a straight-line method – set the asset lives for existing and new assets as shown in Table 3.8 and Table 3.9 in our *Technical Paper – How we set the revenue level*.	14
16.	To set CCC Water's allowance for return of assets at $154 million over the 2022 determination period as shown in Table 3.7 in our *Technical Paper – How we set the revenue level*.	14
17.	To set the working capital allowance for the 2022 determination period as shown in Table 3.10 in our *Technical Paper – How we set the revenue level*.	16
18.	To calculate the tax allowance using: – a tax rate of 30% – IPART's standard methodology.	17
19.	To adopt the regulatory tax allowance as shown in Table 3.13 in our *Technical Paper – How we set the revenue level*.	17
20.	To set an allowance for pensioner rebates for the 2022 determination period as shown in Table 3.15 in our *Technical Paper – How we set the revenue level*.	19

1 Frontier Economics & Mott MacDonald, *CCC Water Expenditure Review – Final Report for IPART*, April 2022
2 CCC Water, *submission to IPART's Draft Report for the 2021-22 CCC Water price review*, 14 April 2022, p 68.
3 RBA, *Statement of Monetary Policy*, February 2022, p 56
4 CCC Water, *submission to IPART's Draft Report for the 2021-22 CCC Water price review*, 14 April 2022, p 74.
5 IPART, *Review of our financeability test – Final Report*, November 2018.
6 ABS (2020), *Consumer Price Index, Weighting Pattern, 2020, Table 4. Points contribution to All groups CPI, September quarter 2020, Eight capital cities and Weighted average of eight capital cities*.
7 IPART, *Review of prices for Sydney Water Final Report*, June 2020, p 87.