

## 2 REVENUE REQUIREMENT

The prices for regulated water and sewerage services in Tasmania are determined by applying forecast demand for regulated services to an annual notional revenue such that the regulated prices when multiplied by the forecast annual demand are no greater than the notional revenue. This revenue, referred to as TasWater's Notional Allowable Revenue (NAR), is used only to determine the maximum prices TasWater can charge for regulated services.<sup>8</sup>

### 2.1 Regulator's decisions

The Regulator has made the following decisions:

1. Accept TasWater's proposed opening RAB as set out in Table 2.1.
2. Apply the proposed RAB roll forward as set out in Table 2.3.
3. Apply the inflation adjustment as set out in Table 2.3.
4. Accept TasWater's values of asset disposals as set out in Table 2.3.
5. Accept TasWater's proposed third party contributions as set out in Table 2.3.
6. Apply the regulatory depreciation allowances as set out in Chapter 6 and Table 2.3.
7. Apply the capex allowances as set out in Chapter 4 and Table 2.3.
8. Apply the NAR for each year as set out in Table 2.9.
9. Conduct an investigation and consider making a revised Price Determination and requiring TasWater to prepare a revised Price and Service Plan only if:
  - (a) requested by TasWater; and
  - (b) the Regulator is satisfied that there is a material risk that, without a further investigation, the objectives of the *Water and Sewerage Industry Act 2008* would not be met, namely that TasWater cannot provide safe, environmentally responsible, sustainable and reliable water and sewerage services.

### 2.2 Differences between the Regulator's decisions in the Draft and Final Report

#### 2.2.1 Changes to draft decisions in the Regulator's Draft Report

The Regulator has modified the draft decisions set out in the Draft Report as follows:

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<sup>8</sup> In practice, TasWater's actual revenue will most likely be different as the actual number of customers and volume of water supplied in each year will differ from the forecasts depending on factors such as the weather and the level of demand from major industrial customers.

- Based on the further information TasWater provided, the Regulator accepts the value of TasWater's asset disposals as set out in Table 2.3 of this Report.
- Due to changes to some of the figures used to calculate the building block components of TasWater's NAR, as set out in other chapters of this Report, the Regulator has recalculated TasWater's NAR.

## 2.3 New decisions not in the Regulator's Draft Report

The Draft Report did not include a decision relating to the circumstances that the Regulator would conduct a further investigation and consider making a revised Price Determination and requiring TasWater to prepare a revised Price and Service Plan.

## 2.4 Determining the NAR

The NAR is determined using a 'building block' approach. Under the building block approach, the regulated entity is allowed to recover through regulated prices the efficient costs of all the activities required to provide water and sewerage services to customers, including funding-related costs.

The cost components, or building blocks, are:

- operating expenditure (opex) (Chapter 5);
- return of capital (regulatory depreciation) (Chapter 6);
- tax allowance (Section 2.5);
- inflation offset (Section 2.3); and
- return on capital (Section 2.4).

The key inputs used in calculating the building blocks are:

- capital expenditure (capex) (Chapter 4);
- the values of the Regulatory Asset Base (RAB) (Section 2.3); and
- the Weighted Average Cost of Capital (WACC) (Chapter 7).

The sum of the cost components is an estimate of TasWater's annual revenue for each year of the regulatory period based on a range of assumptions such as the number of customers and the volume of water supplied. The forecast demand for regulated services is discussed in Chapter 3.

In assessing TasWater's proposed prices, the Regulator assesses TasWater's proposed prices by reference to the Notional Allowable Revenue (NAR).

This chapter discusses the components of the NAR not addressed in other chapters and presents the Regulator's decision on TasWater's NAR.

## 2.5 Regulatory Asset Base

The Regulatory Asset Base (RAB) is the value of the assets required to provide regulated services. The RAB is used to calculate the return on capital and the return of capital (regulatory depreciation).

As required under Section 68(1A) of the Industry Act, assets must also be split between assets transferred to the previous regulated entities before 1 July 2011 (referred to as existing assets) and

assets purchased or constructed by the previous regulated entities and subsequently TasWater on or after 1 July 2009 (referred to as new assets) TasWater must split its assets between existing assets and new assets.

TasWater is also required to have separate RABs for water and sewerage assets to enable the Regulator to ensure that the revenue from the provision of each regulated service recovers only the costs associated with providing that service. TasWater must therefore maintain four RABs; existing water, existing sewerage, new water and new sewerage.

Each RAB must be rolled forward for each year of the regulatory period.

As set out in the Regulator's PSP Guideline, to determine the applicable opening RABs for the fourth regulatory period (ie as at 1 July 2022), the closing RAB from the second year of the penultimate regulatory period (the RABs as at 30 June 2017) is rolled forward to 30 June 2022.

The opening RAB for existing assets as at 1 July 2022 is then rolled forward for each year of the fourth regulatory period by:

adding

- an inflation adjustment

and subtracting

- asset disposals
- third party contributions
- regulatory depreciation.

The opening RAB for new assets as at 1 July 2022 is then rolled forward for each year of the fourth regulatory period by:

adding

- capex
- inflation adjustment

and subtracting

- asset disposals
- third party contributions
- regulatory depreciation.

### 2.5.1 Opening RABs

TasWater's proposed Opening RABs, as provided in its Financial Model, are set out in the following table.

Table 2.1 TasWater's proposed Opening RABs (\$)

	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Water – existing	1 231 575 895	1 225 744 089	1 213 732 036	1 200 691 813	1 187 437 506	1 177 769 390	1 168 533 975	1 164 485 515
Water – new	502 407 768	579 766 559	637 547 782	731 137 435	867 841 337	1 002 106 024	1 098 124 681	1 194 225 841
Sewerage – existing	1 079 522 259	1 076 112 538	1 066 835 925	1 057 006 847	1 045 818 430	1 037 241 488	1 031 330 249	1 016 806 393
Sewerage - new	369 119 525	414 692 682	466 454 844	508 774 568	551 689 207	636 143 467	751 165 907	844 584 369
Total	3 182 625 448	3 296 315 869	3 384 570 588	3 497 610 663	3 652 786 480	3 853 260 369	4 049 154 812	4 220 102 118

## 2.5.2 RAB roll forward

TasWater's proposed RAB roll forward is provided in Table 2.2.

Table 2.2 TasWater's proposed RAB roll forward (\$)

	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Opening RAB	3 182 625 448	3 296 315 869	3 384 570 588	3 497 610 663	3 652 786 480	3 853 260 369	4 049 154 812	4 220 102 118
Capex	129 386 000	128 800 000	174 924 230	229 843 489	285 497 516	299 341 915	226 703 355	223 919 527
Disposals	5 097 992	6 157 935	6 843 329	546 605	62 616	2 904 908	11 519 132	3 349 652
Depreciation – existing	53 844 396	53 376 110	52 902 498	52 125 116	51 682 706	51 414 479	51 288 645	50 880 768
Depreciation – new	23 180 317	33 610 731	44 149 557	47 826 085	51 077 941	57 413 818	63 947 924	73 940 223
Third party contributions	408 008	141 559	12 141 900	17 890 000	36 992 160	59 146 324	9 983 443	30 122 748
Inflation adjustment	66 835 134	52 741 054	54 153 129	43 720 133	54 791 797	67 432 056	80 983 096	94 952 298
Inflation	2.10%	1.60%	1.60%	1.25%	1.50%	1.75%	2.00%	2.25%
Closing RAB	3 296 315 869	3 384 570 588	3 497 610 663	3 652 786 480	3 853 260 369	4 049 154 812	4 220 102 118	4 380 680 551

## 2.5.3 Disposals

Disposals are assets which are no longer used in providing regulated services and are sold or otherwise disposed of. Based on the additional information TasWater provided in its submission with respect to the \$11.5 million disposal value for the Macquarie Point STP in 2024-25, the Regulator has accepted TasWater's proposed values for asset disposals.

## 2.5.4 Third party contributions

Third party capital contributions are assets contributed by third parties and include developer charges, gifted assets, service introduction charges and government grants. Third party capital contributions may be included in capex but are not in the RABs and are therefore not considered when determining prices because TasWater is not permitted to receive a return on capital, or a return of capital, in relation to assets it did not fund itself.

Third party contributions include \$133.5 million external funding over the fourth regulatory period for the Macquarie Point STP relocation project and the Tamar Estuary River Health Action Plan (TERHAP). The Regulator accepts TasWater's proposed third party contributions.

## 2.5.5 Inflation adjustment/offset

The use of a nominal WACC requires the RAB values to be adjusted for inflation. The RAB roll forward included actual inflation where the value is known and forecast inflation for the remaining years. The forecast inflation values used by the Regulator in the Draft Report were based on those in Table 5.1 of the RBA's *Statement on Monetary Policy* (November 2021).<sup>9</sup> For this Report, the Regulator used

<sup>9</sup> <https://www.rba.gov.au/publications/smp/2021/nov/economic-outlook.html>

significantly higher forecast inflation rates in the RBA's *Statement on Monetary Policy* issued in May 2022.<sup>10</sup> The Regulator's approved RAB roll forward is shown in Table 2.3.

Table 2.3 Regulator's approved RAB roll forward for TasWater (\$)

	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Opening RAB	3 182 625 448	3 288 497 980	3 323 113 138	3 516 205 074	3 826 596 880	4 025 763 435	4 208 195 935	4 424 356 503
Capex	129 386 000	128 800 000	174 924 230	229 843 489	274 248 691	287 761 739	215 435 416	212 925 924
Sales	5 097 992	6 157 935	6 843 329	546 605	62 616	2 904 908	11 519 132	3 349 652
Depreciation – existing	45 749 157	44 409 123	44 975 808	46 580 273	53 491 322	52 192 165	52 994 750	54 743 826
Depreciation – new	23 180 317	33 610 731	44 149 557	47 826 085	50 717 000	56 644 000	62 770 000	72 254 000
Contributions	408 008	141 559	1 214 1900	17 890 000	97 513 180	126 884 729	11 328 028	34 170 228
Inflationary adjustment	50 922 007	-9865494	126278299	193391279	126701983	133296562	139337062	146 494 329
Inflation	1.60%	-0.30%	3.80%	5.50%	3.31%	3.31%	3.31%	3.31%
Closing RAB	3 288 497 980	3 323 113 138	3 516 205 074	3 826 596 880	4 025 763 435	4 208 195 935	4 424 356 503	4 619 259 050

## 2.6 Return on capital

The rate of return used to calculate the return on capital in the NAR is the WACCs for new and existing assets. The applicable WACCs are discussed in Chapter 7. The relevant WACC is multiplied by an average of the opening and closing RAB values in each year of the regulatory period.

Tables 2.4 and 2.5 show TasWater's return on capital as set out in its proposed PSP.

Table 2.4 TasWater's proposed return on capital - existing assets (\$)

	2022-23	2023-24	2024-25	2025-26
RAB (average)	2 224 133 406	2 207 437 551	2 190 578 066	2 179 149 388
WACC existing	4.17%	4.17%	4.17%	4.17%
<b>Return on assets</b>	<b>92 745 919</b>	<b>92 049 706</b>	<b>91 346 668</b>	<b>90 870 095</b>

Table 2.5 TasWater's proposed return on capital - new assets (\$)

	2022-23	2023-24	2024-25	2025-26
RAB (average)	1 528 890 018	1 743 770 040	1 944 050 400	2 121 241 947
WACC New	5.41%	5.41%	5.41%	5.41%
<b>Return on assets</b>	<b>82 655 312</b>	<b>94 272 220</b>	<b>105 099 837</b>	<b>114 679 220</b>

The inputs for the WACC have been updated for the Regulator's Final Report to reflect prevailing interest rates. Tables 2.6 and 2.7 show the Regulator's calculation of TasWater's return on capital.

Table 2.6 Regulator's approved return on capital for TasWater - existing assets (\$)

	2022-23	2023-24	2024-25	2025-26
RAB (average)	2 366 393 768	2 390 627 372	2 410 301 775	2 429 357 548
WACC existing	3.79%	3.79%	3.79%	3.79%
<b>Return on assets</b>	<b>89 733 652</b>	<b>90 652 590</b>	<b>91 398 643</b>	<b>92 121 238</b>

<sup>10</sup> <https://www.rba.gov.au/publications/smp/2022/may/economic-outlook.html>

Geometric average of RBA forecasts for June 2023 and June 2024 for 2022-23 onward, from RBA's May 2022 release.

Table 2.7 Regulator's approved return on capital for TasWater - new assets (\$)

	2022-23	2023-24	2024-25	2025-26
RAB (average)	1 559 786 390	1 726 352 313	1 905 974 444	2 092 450 229
WACC New	5.28%	5.28%	5.28%	5.28%
<b>Return on assets</b>	<b>82 419 113</b>	<b>91 220 456</b>	<b>100 711 690</b>	<b>110 565 070</b>

## 2.7 Tax Allowance

For the third regulatory period, TasWater proposed, and the Regulator approved, the use of a post-tax WACC. This necessitated the inclusion of a tax allowance in the regulated revenue build-up.

However, following amendments made to the *Water and Sewerage Corporation Act 2012* in 2018, from 1 January 2019 TasWater is no longer subject to the National Tax Equivalent Regime and is therefore no longer required to make tax equivalent payments to its owners.

Consequently, for the fourth regulatory period and, as set out in the Regulator's PSP Guideline, TasWater must use a tax rate equal to zero that will result in the tax allowance component of its cost build-up also equalling zero.

## 2.8 Notional Allowable Revenue

TasWater's proposed building block components and NAR for each year of the fourth regulatory period are shown in Table 2.8.

Table 2.8 TasWater's proposed NAR (\$'000)

Building block component	2022-23	2023-24	2024-25	2025-26
Return on capital - existing	92 746	92 050	91 347	90 870
Return on capital - new	82 655	94 272	105 100	114 679
Depreciation	102 761	108 828	115 237	124 821
Inflationary gain	-54 792	-67 432	-80 983	-94 952
Opex	200 066	206 065	213 533	220 722
Tax	0	0	0	0
<b>Total</b>	<b>423 436</b>	<b>433 783</b>	<b>444 234</b>	<b>456 140</b>

TasWater states in its proposed PSP that, based on its calculation of the NAR, and its forecast demand, an annual price increase of 6.5 per cent would be required so that the NAR is recovered in the last year of the fourth regulatory period (2025-26).<sup>11</sup> Under this scenario, TasWater's revenue would transition to the NAR over the fourth regulatory period.

The Regulator's values for each building block component and NAR for each year of the fourth regulatory period are provided in Table 2.9.

<sup>11</sup> TasWater's proposed PSP, pages 181-182.

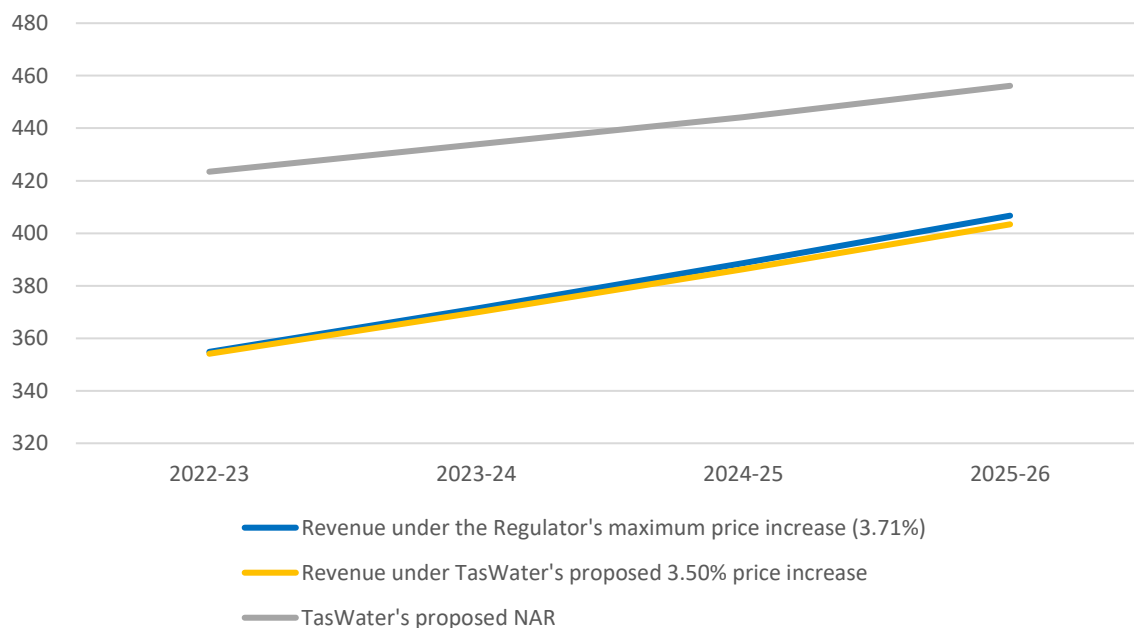
Table 2.9 Regulator's approved NAR for TasWater (\$'000)

Building block component	2022-23	2023-24	2024-25	2025-26
Return on capital - existing	89 734	90 653	91 399	92 121
Return on capital - new	82 419	91 220	100 712	110 565
Depreciation	104 208	108 836	115 765	126 998
Inflationary gain	-126 702	-133 297	-139 337	-146 494
Opex	205 054	211 669	219 132	226 815
Tax	0	0	0	0
<b>Total</b>	<b>354 713</b>	<b>369 082</b>	<b>387 670</b>	<b>410 005</b>

Based on the Regulator's NARs, an annual uniform price increase of 3.71 per cent is required to recover the aggregate of the annual NARs over the fourth regulatory period.

A comparison of the annual notional revenue requirement based on TasWater recovering the NAR in 2025-26, TasWater's annual revenue with a 3.50 per cent price increase and TasWater's annual revenue based on the Regulator's maximum price increase of 3.71 per cent is shown in Figure 2.1.

Figure 2.1 TasWater's revenue projections and notional revenue for the fourth regulatory period (\$ million)



## 2.9 Price Determination

Noting the Regulator's estimation of TasWater's notional allowable revenue for the fourth regulatory period, the Regulator has made a price determination which sets out the maximum prices TasWater can charge for the period.

A copy of the Determination is available on the Regulator's website.

## 2.9.1 Submissions on the Regulator's Draft Report

In its submission on the Regulator's Draft Report in relation to escalation rates, TasWater stated that:

TasWater accepts using [RBA] forecast values from the most relevant Quarterly Statement and notes that the TER may use forecast values from the May 2022 Quarterly Statement in its final determination. However, regardless of the forecast values that are ultimately approved, TasWater notes that these values will be fixed for the entire PSP4 period. As there is currently upward inflationary pressure, fixing the forecast values for the four-year period presents a risk to TasWater that actual inflation is materially higher than that allowed in the final determination. Should this occur, TasWater's actual costs could be materially higher than it is able to recover from its customers.

TasWater accepts that there will be some areas where actual outcomes differ from forecast outcomes over the PSP4 period that it will be required to absorb. However, if inflation outcomes are substantially higher over the PSP4 period than the escalation rates approved in the final determination, TasWater will consider seeking for the TER to re-open the final determination.

## 2.9.2 Regulator's decision

Considering the issues TasWater has raised, the Regulator has advised TasWater that it will conduct an investigation and consider making a revised Price Determination and requiring TasWater to prepare a revised Price and Service plan only if:

- (a) requested by TasWater; and
- (b) the Regulator is satisfied that there is a material risk that, without a further investigation, the objectives of the *Water and Sewerage Industry Act 2008* would not be met, namely that TasWater cannot not provide safe, environmentally responsible, sustainable and reliable water and sewerage services.