

**Tasmanian**  
Audit Office

**Legislative Council  
Select Committee**

Briefing on Tasmanian Water and  
Sewerage Corporation Pty Ltd

3 November 2020

# Concerns raised by Latrobe and Kentish Councils

- The significant impairment of assets since the formation of TasWater has potential long-term impacts on TasWater operations.
- TasWater values its assets on its revenue received and has impaired the value of its assets by over a billion dollars including a current suggested impairment of \$442m in the 2019-20 financial year.
- How does TasWater intend to address the significant shortfall between statutory depreciation expenses and replacement costs of assets over the next 30-40 year period?



# Questions to be considered

- How should water entities value their assets for statutory reporting purposes?
- Does the statutory reporting valuation basis impact prices charged for water and sewerage services?
- Is depreciation meant to fund asset replacement?



# Statutory valuation of water entity assets

- *AASB 116 Property, plant and equipment* - an entity shall choose either the cost model or the revaluation model as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.
- In its first year of incorporation TasWater elected to use the revaluation model for its infrastructure assets, freehold land and buildings.
- *AASB 13 Fair value measurement* – fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (ie an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.
- Valuation techniques used to measure fair value shall maximise the use of relevant observable inputs and minimise the use of unobservable inputs.



# Statutory valuation of water entity assets

- Fair value hierarchy:
  1. Level 1 inputs - quoted prices (unadjusted) in active markets for identical assets or liabilities at the measurement date
  2. Level 2 inputs - inputs other than quoted prices included within Level 1 that are observable for the asset or liability, directly or indirectly
  3. Level 3 inputs - unobservable inputs for the asset or liability.
- Valuation techniques
  1. Market approach - uses prices and other relevant information generated by market transactions involving identical or comparable (i.e. similar) assets, liabilities or business 
  2. Cost approach - reflects the amount required currently to replace the service capacity of an asset (often referred to as current replacement cost) 
  3. Income approach - converts future amounts (e.g. cash flows or income and expenses) to a single current (i.e. discounted) amount. 



# Income or cost approach?

- Australian Accounting Standards permit fair value to be estimated using either an income approach or a current replacement cost approach, in circumstances where there is no market-based evidence of fair value.
- Australian Bureau of Statistics view - when the business operation is effectively *not-for-profit*, it is inappropriate to value water supply infrastructure assets on the basis of future expected earnings.
- Deloitte view - in the context of being classified as a *for-profit* entity for financial reporting purposes, the underlying value (to the entity) of the water infrastructure assets is their ability to generate future cash flows to provide a monetary return to the entity.
- Tasmanian Audit Office view – which method results in information that is relevant to the economic decision-making needs of the users of the financial statements. This is a matter of judgement and should be considered by each entity within the context of its specific circumstances.



# Income or cost approach?

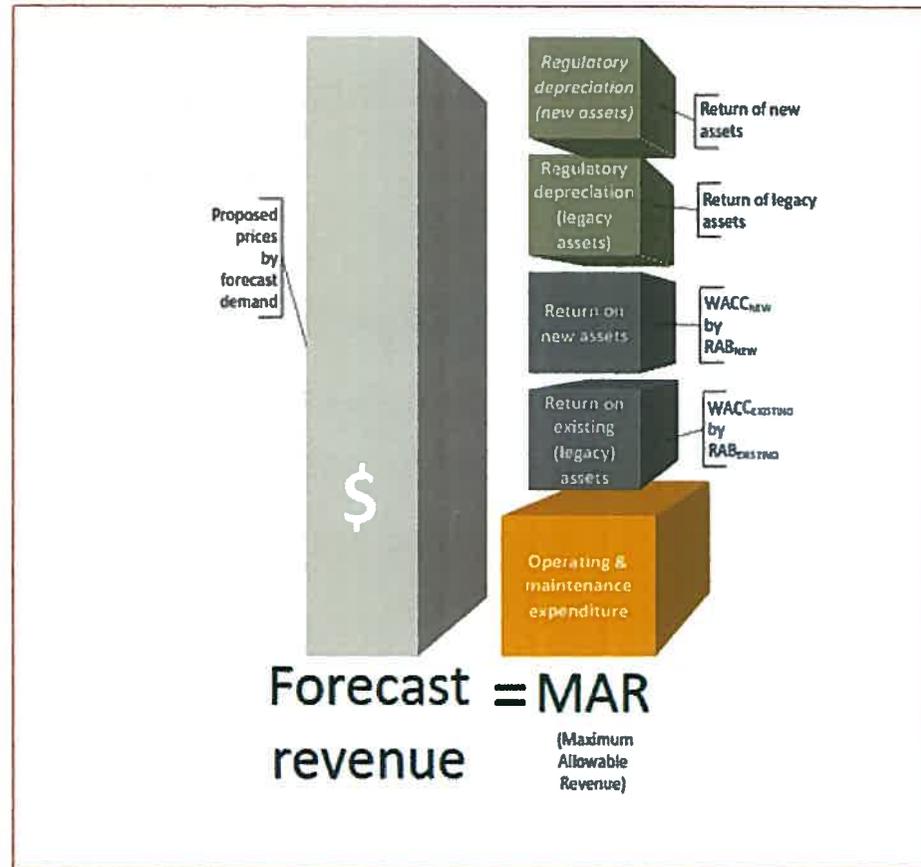
Water Authority	State	FY2019 Asset Value (\$'000s)	Size	Valuation Approach
Melbourne Water	VIC	15,110,495	Large	Income (Discounted Cashflows)
South East Water	VIC	4,115,956	Medium	Income (Discounted Cashflows)
City West Water	VIC	2,191,376	Medium	Income (Discounted Cashflows)
Yarra Valley Water	VIC	4,360,204	Medium	Income (Discounted Cashflows)
Citywest Water	VIC	1,947,858	Medium	Income (Discounted Cashflows)
Coliban Water	VIC	1,562,365	Medium	Cost
Water NSW	NSW	2,936,710	Medium	Income (Discounted Cashflows)
Sydney Water	NSW	19,582,746	Large	Income (Discounted Cashflows)
Hunter Water	NSW	2,732,044	Medium	Income (Discounted Cashflows)
Sunwater	QLD	829,285	Small	Impaired assets – value in use model applied using discounted cash flows
Seqwater	QLD	11,124,853	Large	Income (Discounted Cashflows)
Logan Water	QLD	1,309,820	Medium	Income (Discounted Cashflows)
Unity Water	QLD	3,603,019	Medium	Income (Discounted Cashflows)
Gladstone Water	QLD	732,073	Small	Income (Discounted Cashflows)
SA Water	SA	14,367,772	Large	Cost
Water Corporation	WA	17,341,000	Large	Cost
Power & Water Corporation	NT	2,931,219	Medium	Income (Discounted Cashflows)

# Does the statutory valuation affect water pricing?

- In short, the answer to the question is no.
- The Tasmanian Economic Regulator, a body independent from the Tasmanian Government, has been responsible for setting prices for regulated water and sewerage services in Tasmania from 1 July 2012.
- Prices for regulated water and sewerage services in Tasmania are determined on the basis of a 'building block' approach.
- Under the building block approach, the costs of all the activities needed to provide water and sewerage services to customers, including investment-related costs, are added together to determine TasWater's annual revenue limits.
- Prices are then set such that the expected revenue does not exceed these limits.
- The revenue limits reflect those costs the Economic Regulator considers an efficient water and sewerage provider would incur in providing water and sewerage services to its customers.



# Building block approach



Source: Frontier Economics



# Regulatory asset base (RAB)

- Regulatory Asset Base (30 June 2020 - \$3.1 billion).
- TasWater maintains two RABs, which are split between Water and Sewerage assets:
  - RAB (existing) assets and RAB (new) assets
  - Approximately  $\frac{2}{3}$  of the assets are existing assets and  $\frac{1}{3}$  are new assets.
- Unlike the Statutory Asset Base the RAB excludes:
  - contributed assets or assets externally funded
  - capitalised interest and
  - revaluation adjustmentsbut includes an inflationary adjustment.

# Statutory asset base

- Statutory Asset Base (30 June 2020 - \$2.1 billion).
- TasWater's statutory asset base was initially based on an assessment of the depreciated replacement cost of assets transferred from councils on 1 July 2009.
- On establishment in 1 July 2013, TasWater valued its infrastructure assets on an income basis using a discounted cash flow model.
- A number of valuation adjustments have since been made in line with the requirements of the Australian Accounting Standards.
- FY2019-20 valuation was informed by an independent specialist.
- Updated methodology applied uses a longer term perspective which is likely to lead to less volatility in the future.
- Discount rate arrived at was considerably higher than the prior year, resulting in lower asset values.
- Discount rate is in line with industry benchmarks.



# Does depreciation fund asset replacement?

- In short, the answer to the question is no.
- Depreciation is the systematic allocation of the depreciable amount (cost or fair value less residual value) of an asset over its useful life.
- There are a number of factors influencing the funding or financing of infrastructure assets (refer next slide).
- Changes to statutory asset values are not reflected in the regulatory asset base.
- Regulatory depreciation is completely independent of statutory depreciation.
- Any changes in statutory depreciation have no impact on the regulatory depreciation allowance.
- Depreciation is often used in indicators to measure asset sustainability or consumption of service potential e.g. asset sustainability ratio (capital expenditure on replacement assets or renewals/depreciation expense), asset consumption ratio (depreciated current replacement cost/current replacement cost).



# How is asset replacement funded?

- The strategy for asset replacement depends on the operational economy and efficiency of an entity and its capital and debt policies and structure.
- Infrastructure asset construction or renewal can be funded from:
  - Cash flows from operations – influenced by pricing for water and sewerage, capital grants, operational cost economy and efficiency
  - Debt – influenced by the preferred or target gearing ratio or interest cover ratio (TasWater's preferred measure)
  - Equity
  - Alternative funding models – e.g. public-private partnerships.
- The capital expenditure budget (and maximum capital expenditure) for TasWater is determined from the Long Term Financial Model which takes into consideration the annual price increase and interest cover ratio constraints.



