



Tasmanian
Audit Office



**Report of the Auditor-General
No. 2 of 2017-18**

Water and sewerage in Tasmania:
Assessing the outcomes of industry
reform

November 2017

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INTRODUCTION

This is a summary report of '*Water and Sewerage in Tasmania: Assessing the outcomes of industry reform*' an audit on the benefits derived from the structural changes made to the Tasmanian water and sewerage industry since 2009. The full report can be found at our website: **www.audit.tas.gov.au**

Audit objective

The objective of the audit was to form conclusions on the extent to which the intended outcomes arising from the reforms of the water and sewerage industry have been achieved.

Audit scope

The audit examined the performance of the regulated entities responsible for the provision of water and sewerage services before and after the commencement of the *Water and Sewerage Corporations Act 2008* (the 2008 Act) and the *Water and Sewerage Corporation Act 2012* (the 2012 Act). Throughout this report, the structural, economic and regulatory changes to the water and sewerage industry initiated by these Acts, together with the *Water and Sewerage Industry Act 2008* (2008 Industry Act) and the *Water and Sewerage Industry Amendment Act 2012* (2012 Industry Act) are referred to as the 'reforms'. Implementation of the 2008 reforms commenced from 1 July 2009 and implementation of the 2012 reforms commenced from 1 July 2013.

The audit commenced in October 2016 and examined information and data that was available up to and including the 2015-16 financial year. For currency and fairness, the scope of the audit has included 2016-17 information and data where appropriate. Where 2016-17 data is reviewed, amended (if required) and published according to a regulatory requirement by organisations such as the Department of Health and Human Services (DHHS) and the Office of the Tasmanian Economic Regulator (TER), I have chosen not to pre-empt their official reports by including that data in this report. Both DHHS and TER reports relevant to the water and sewerage industry for 2016-17 are due in the first quarter of 2018. However, commentary in respect of 2016-17 has been included where appropriate.

An examination of dams was not included in the scope of this audit as dams were not specifically mentioned in the intended outcomes of the reforms envisaged by the government.

Audit approach

The audit was conducted in accordance with Australian Standard on Assurance Engagements ASAE 3500 *Performance Engagements*, issued by the Australian Auditing and Assurance Standards Board, for the purpose of expressing a reasonable assurance conclusion.

The audit assessed the extent of the intended outcomes delivered by the reforms by analysing data, examining and verifying internal and external reports, reviewing strategic and annual planning processes and documents and discussing industry performance with the appropriate regulators and stakeholders.

The audit examined the performance of councils up to 2009 as a baseline for comparison, the regional corporations between July 2009 and June 2013 and TasWater from July 2013.

Management responsibility

The regional corporations had responsibility for achieving intended outcomes from the 2008 reform.

TasWater had responsibility for continuing the achievement of the intended outcomes from the 2008 reform as well as achieving the intended outcomes from the 2012 reform.

Auditor-General's responsibility

In the context of this audit, my responsibility was to express a reasonable assurance conclusion on the extent to which the intended outcomes arising from the reforms have been achieved.

Findings and recommendations

The government envisaged many intended outcomes across the water and sewerage industry as a result of the reforms. These have been summarised into 40 separate elements, with the regional corporations required to contribute to the achievement of 28 and TasWater required to contribute to all 40. There were three intended outcomes we did not assess – two related to employee benefits and one related to economic benefits.

The table following draws together the intended outcomes of the reforms and the assessment as to whether they have been achieved.

Table: Intended outcomes envisaged by the Tasmanian Government

	Regional corporations	TasWater	Report reference
2008 intended outcomes			
\$1.0 billion of new water and sewerage infrastructure over the next 10 years	P	P	3.3
Condition assessments for assets	P	P	2.2
Adequate asset management plans	✓	✓	2.1
Improved financial return	✓	✓	3.5
Improved capacity to service debt	✓	✓	3.2
Wastewater (sewage) ¹ treatment plants comply with licence conditions	P	P	1.2
Reduced number of permanent boil water alerts including in key tourism areas	✓	✓	1.1, 1.3
More robust regulatory framework comparable to other states ²	✓	✓	4.3
Improved infrastructure standard	P	P	2.2, 2.3
Renewal over the coming decades	P	P	2.2
Augmentation over the coming decades	P	P	2.3
Created employee opportunities ³	Not assessed in this audit		
Tourism operators, local businesses and the community receive services that are:			
• cost effective	P	✓	3.1, 3.4
• sustainable	✓	✓	3.2
• compliant with standards	P	P	1.1, 1.2
Significant long-term benefits:			
• public health	✓	P	1.1
• environmental benefits	✗	✗	1.2
Significant long-term economic benefits ⁴	Not assessed in this audit		
Improved compliance with environmental standards for wastewater	✗	✗	1.2
Improved compliance with water quality standards	✓	P	1.1
Increased revenue flows into the sector to support self-sustaining investment and the appropriate use of debt funding	✓	✓	3.2

	Regional corporations	TasWater	Report reference
Minimum customer service standards have been:			
• established ²	✓	✓	4.1
• achieved	P	P	4.1
Customer service standards drive business decision making	✓	✓	4.2
Customers pay for the services they receive	P	✓	3.4
Customers have a voice through a transparent regulatory process ²	✓	✓	4.2
Institute strategic asset management planning	P	✓	2.1
Communication between technical and economic regulators ²	✓	✓	4.3
2012 intended outcomes ⁵			
State-wide infrastructure planning		✓	2.1
Consistent service delivery		P	4.2
Consistent customer relations		✓	4.2
Further integration of administrative systems creating cost savings and reduced reporting and administrative effort		P	3.5
Broader base of employee skills and experience ³		Not assessed in this audit	
Stronger, more stable cash flow		✓	3.3
Better capacity to manage debt		✓	3.2
More flexibility to deal with a significant capital expenditure program		✓	3.3
Better services for customers		P	4.2
Quicker achievement of health and environmental standards:			
• water		P	1.1, 1.3
• sewerage		✗	1.2, 1.3
Deliver estimated savings of \$5.0 million p.a. after a period of time		P	3.5

✓ — outcome realised, ✗ — outcome not realised, P — outcome partially realised

Notes:

1. Wastewater and sewage have been used interchangeably throughout this report depending on the terminology used by the relevant regulator.
2. Not the responsibility of the regulated entity to implement.
3. Outcomes involving employees were not included in the scope of this audit.
4. Economic modelling to determine the extent to which the reforms contributed to long-term economic benefits was not included in the scope of this audit.
5. Not applicable to the regional corporations.

Criterion 1 Have the reforms delivered improved public health and environmental benefits?

1.1 Has compliance with applicable water quality standards improved?

Findings

- Compliance with applicable water quality standards has improved since 2009 as evidenced by:
 - improvement in water supply treatment processes
 - improvement in microbiological sampling compliance, although this has declined since 2013-14
 - improvement in microbiological compliance, although this has declined since 2013-14
 - improvement in the percentage of the population receiving fluoridated water
 - remediation of five of the six water supplies subject to public health alerts
 - an increase in the proportion of the population receiving compliant water from 96.0% in 2009-10 to 99.4% in 2016-17
 - Drinking Water Quality Management Plans for all ownership structures.
- The number of permanent boil water alerts reduced since 2009 and affect less of the population.
- Significant long-term health benefits have been achieved since 2009.
- Significant long-term health benefits have not been achieved more quickly since 2013 in microbiological sampling compliance and microbiological compliance.

Recommendation

1. TasWater investigates and remedies the decline in microbiological sampling compliance and microbiological compliance.

1.2 Has compliance with applicable environmental standards for wastewater improved?

Findings

- State-wide compliance with environmental standards for wastewater has not improved since 2009 as sewage treatment plants (STPs) have not complied with licence conditions and sewerage infrastructure has been under-performing compared to national averages.
- Significant long-term environmental benefits have not been achieved since 2009 and have not been achieved more quickly since 2013 as evidenced by:
 - ongoing non-compliance of STPs
 - no improvement in the percentage of compliant treated sewage volume, although this has reportedly improved since 2015-16
 - the high number of sewer mains breaks and chokes and breaks and chokes per 100 km
 - the high number of sewer overflows and overflows per 100 km.

Recommendation

2. TasWater improves its efforts in wastewater management compliance to meet community and regulatory expectations.

1.3 Have tourism operators, local businesses and the community been provided with improved water and sewerage infrastructure sooner?

Findings

- Tourism operators, local businesses and the community have benefited from quicker achievement of health standards since 2013 in water supply treatment processes, fluoridation and public health warnings but not in microbiological sampling compliance, microbiological compliance and the proportion of the population receiving compliant water.
- Tourism operators, local businesses and the community have not benefited from quicker achievement of environmental standards since 2013 as evidenced by ongoing STP non-compliance.

Criterion 2 Have the reforms improved strategic asset management?

2.1 Has improved strategic asset management planning been achieved?

Findings

- Improved strategic asset management planning has been achieved since 2009.
- The implementation of state-wide infrastructure planning has commenced since 2013 as evidenced by:
 - the development of a state-wide operating model planned for in the 2015 asset management plan
 - the development of a long-term strategic plan covering the period 2018-2037
 - a commitment to building a new state-wide asset management system as stated in the 2015 asset management plan
 - a solid theoretical framework underpinned by asset management strategies and associated management plans.

2.2 Has old and failing water and sewerage infrastructure been identified and renewed?

Findings

- The identification of old and failing water and sewerage infrastructure has occurred since 2009 as evidenced by the progress of asset condition assessments and the establishment of the Asset Criticality Framework to further improve knowledge of the condition of the state's infrastructure.
- The renewal of old and failing water and sewerage infrastructure has only occurred for some assets since 2009 due to:
 - budgeted capital expenditure for renewals or replacements being consistently less than actual expenditure
 - actual capital expenditure for renewals or replacements has not proceeded commensurate with the age and condition of the infrastructure and borrowing capacity available.
- Renewal over the coming decades has been planned for since 2009 but has not proceeded commensurate with the age and condition of the state's infrastructure.
- An improved infrastructure standard has occurred for some assets since 2009.

Recommendations

3. TasWater completes its work assessing the condition of infrastructure assets in the short term.
4. TasWater undertakes greater investment and prioritisation of capital expenditure to address old and failing infrastructure.

2.3 Has water and sewerage infrastructure been expanded or extended?

Findings

- Water and sewerage infrastructure has been expanded and extended since the commencement of the reforms.
- A structured approach to asset rationalisation is not in place as evidenced by the absence of a rationalisation strategy.

Recommendation

5. TasWater finalises its rationalisation strategy to support rationalisation projects.

Criterion 3 Have the reforms delivered the expected financial benefits?

3.1 Have pricing structures balanced revenue maximisation against equity within the regulatory environment?

Findings

- Pricing structures since 1 July 2009 have balanced revenue maximisation against equity in the regulatory environment as evidenced by:
 - the introduction of two-part pricing is financially appropriate and equitable for all customers
 - the proportion of fixed and variable price weighting is reasonable given the geographical location and number of infrastructure assets needed to service the population
 - a regulated pricing methodology providing an appropriate level of revenue flows as detailed in Section 3.2
 - the migration of customers to tariff rates over time to prevent 'bill shock'.

3.2 Have revenue flows increased to achieve self-sustaining investment and has an appropriate level of debt funding been utilised?

Findings

- Revenue flows have increased to support self-sustaining investment since 2009.
- Payment of dividends, guarantee fees and tax equivalents have been made to councils as required by the 2008 and 2012 Acts.
- There has been an improved capacity to service debt and meet debt repayment requirements since 2009 as evidenced by:
 - a strong interest cover ratio exceeding the target set in corporate plans and the long-term 10-year financial plan
 - low debt to total assets and debt to equity ratios demonstrating capacity to increase borrowings and fund infrastructure investment
- An appropriate level of debt funding has not been utilised since 2009 as more capital expenditure could have been funded by debt to improve compliance with environmental standards for wastewater as outlined in Section 1.2.
- There has been a better capacity to manage debt since 2013.

Recommendation

6. TasWater investigates the acceleration of infrastructure investment by utilising additional debt funding.

3.3 Has more flexibility to deal with a capital expenditure program been achieved?

Findings

- Actual expenditure since 2009 is in line with the government's expected expenditure of one billion dollars over 10 years. However, this includes capital expenditure on non infrastructure related capital items.
- More flexibility to deal with a capital expenditure program has been achieved since 2013 as evidenced by a stronger and more stable cash flow.

3.4 Do customers pay an appropriate amount for the services they receive?

Findings

- Customers had not paid an appropriate amount for water and sewerage services since 2009 but have paid an appropriate amount since 2013.
- Tourism operators, local businesses and the community received services that are cost effective since 2009. Refer also to Sub-Section 1.3.

3.5 Have cost savings and reduced reporting and administrative effort been achieved?

Findings

- Financial return has improved since 2009.
- Savings of \$5m per annum after a period of time as a result of the merger have not been fully achieved since 2013 due to higher levels of asset compliance expenditure.
- Further integration of administrative systems creating cost savings and reduced reporting has partially occurred since 2013.

Criterion 4 Have the reforms provided improved customer service?

4.1 Have minimum customer service standards been established and achieved?

Findings

- Minimum customer service standards have been established since 2009.
- Not all minimum customer service standards have been achieved since 2009 despite concessions on transitional targets and performance.

Recommendation

7. TasWater works more diligently to achieve the minimum customer service standards as required by the *Tasmanian Water and Sewerage Industry Customer Service Code* (Code).

4.2 Have service delivery and customer relations improved across the state?

Findings

- Service delivery has improved across the state since 2009 but has not been consistent since 2013 as evidenced by:
 - improvement of reporting and achievement against the minimum customer service standards in accordance with TER requirements, although achievement has declined since 2014-15
 - full reporting against the measureable standards has been achieved before the due date required by TER.
- Customer relations have improved across the state since 2009 and have been consistent since 2013 as evidenced by:
 - customer charters in compliance with legislative requirements
 - implementation of state-wide initiatives for the purpose of improving customer relations
 - collection of customer satisfaction information
 - implementation of processes for handling customer complaints including targets.
- Customer service standards have driven business decision-making since 2009.

Recommendations

8. TasWater continues to develop measures to better monitor levels of customer satisfaction.
9. TasWater consistently and publicly reports service levels and customer satisfaction.

4.3 Has a more robust regulatory framework been achieved?

Findings

- The regulatory framework in Tasmania since 2009 has:
 - been strengthened by the implementation of the 2008 Industry Act
 - been as robust as the frameworks in other Australian states
 - provided customers with a voice through a transparent regulatory framework
 - facilitated communication between technical and economic regulators.

AUDITOR-GENERAL'S CONCLUSION


It is my conclusion that, with the exception of improved environmental outcomes in wastewater treatment, the intended outcomes of the reforms have either been fully or partially achieved.

The reforms have also delivered improved public health benefits, but not the expected improved environmental benefits. This reflects the regulated entities focus on improving water quality over wastewater compliance and performance.

Strategic asset management has improved with increased maturity in strategic asset planning and state-wide infrastructure planning and an increased level of understanding of the criticality and condition of the infrastructure assets. Although there has been growth in, and renewal of, the water and sewerage network since the commencement of the reforms, the extent of renewal has not been at a rate commensurate with the age and condition of the infrastructure assets.

The reforms have largely delivered the expected financial benefits. The introduction of two-part pricing has provided customers with an equitable pricing approach and an appropriate charge for the water and sewerage services they receive. The reforms have provided the regulated entities with increased revenues and cash flows, greater flexibility to deal the capital expenditure program and access to higher levels of debt funding. However, I have concluded that some regulated entities have not taken advantage of the improved capacity to service debt by drawing on additional borrowings to accelerate infrastructure investment.

Customer service has broadly improved, assisted in part by the introduction of a more robust regulatory framework. This has facilitated the introduction of minimum customer service standards, which although not all achieved, have trended towards increased compliance. Service delivery and customer relations have similarly improved since the introduction of the reforms.



Rod Whitehead
Auditor-General
14 November 2017

KEY FACTS



Prior to 2009

2009 to 2013

From July 2013



29 councils plus three bulk water authorities

Three regional corporations

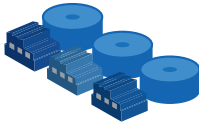
Single, state-wide entity



In 2009, average bill for 200 kilolitre was \$667¹

In 2013, average bill for 200 kilolitre was \$1 015

In 2016, average bill for 200 kilolitre was \$1 085



60 water treatment plants

59 water treatment plants

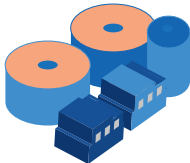
56 water treatment plants



195 100 water connections

197 000 water connections

202 500 water connections



78² sewage treatment plants

79² sewage treatment plants

79² sewage treatment plants



176 000 sewerage connections

173 970 sewerage connections

174 939 sewerage connections

Notes:

1. TER price for 2010 based on average aggregated price of the three regional prices for 200kL, as 2009 not available.
2. Level 2 STPs only, does not include Level 1 STPs.

For the full report go to:
<http://www.audit.tas.gov.au/publications/reports-to-parliament/>



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