

Long Term Strategic Plan 2018-2037




Taswater

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Introduction

With infrastructure that can last 100 years or more, we build and operate water and sewerage systems to provide service to current and future generations of Tasmanians. As a result, we need to take a long term view when planning our investments.

This document represents our first Long Term Strategic Plan (LTSP) and sets out the outcomes we will deliver to customers over a 20 year period, from 2018 to 2037. Over this period, we still have much to do to provide the quality of service that Tasmanians should reasonably expect.

We are very aware that our services must be affordable for our customers. However, we face some major challenges to ensure drinking water for all customers is clean and safe to drink, to reduce the impact of sewage treatment and disposal on the environment, and to maintain a secure supply of water by managing the safety of our dams.

At the same time, we inherited a large, dispersed and ageing asset base that needs to be replaced as it reaches the end of its useful life in order to ensure a reliable supply of water to our customers and to efficiently collect and transport sewage.

It is not feasible for us to address all of these requirements at once given the scale of expenditure required and the need to strike a balance with customer affordability. The LTSP provides a framework for engaging with customers, stakeholders and regulators to prioritise water and sewerage outcomes over the next 20 years.

How the LTSP works with other plans

The LTSP has been developed to give direction to the whole business. It details our goals, customer preferences and stakeholder support. The detail of how the LTSP will be delivered is in the integrated set of strategies, projects, plans including the PSP that sit below the LTSP:



Who we are

TasWater is an incorporated company providing water and sewerage services to homes and businesses across Tasmania.

We started operations on 1 July 2013 following the merger of the three former regional Tasmanian water and sewerage corporations (Ben Lomond Water, Cradle Mountain Water and Southern Water) and the common services provider company, Onstream.

We are established under the *Water and Sewerage Corporation Act 2012* and the *Corporations Act 2001*. In addition we are subject to a range of legislative and regulatory instruments, including the:

- 1) *Water and Sewerage Industry Act 2008*
- 2) *Environmental Management and Pollution Control Act 1994*
- 3) *Public Health Act 1997*
- 4) *Land Use Planning and Approvals Act 1993*
- 5) *ANCOLD Guidelines on Dam Safety Management 2003*.

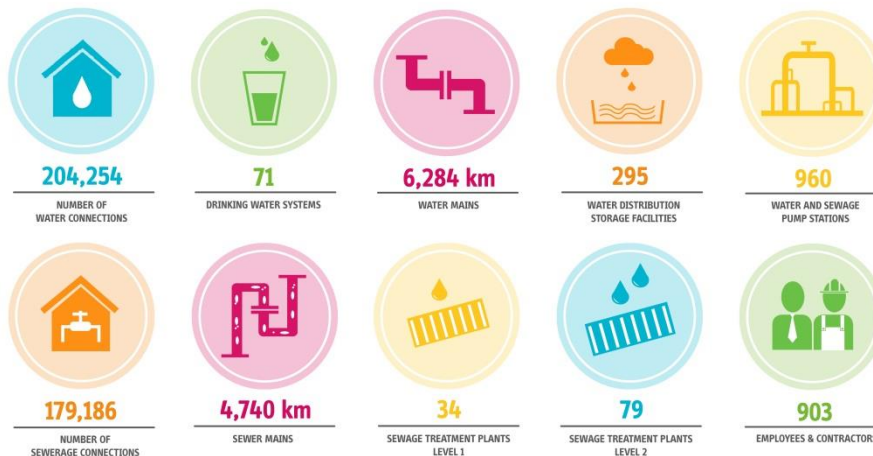
We are owned by the 29 Tasmanian councils who receive returns through dividends, tax equivalent payments and loan guarantee fees.

What we do

Our core business is to provide two essential services for Tasmanians:

- 1) The sourcing, treatment and reliable delivery of quality drinking water
- 2) The collection, transportation, treatment and safe return of the wastewater to the environment.

Key facts



Information as of 28 February 2017.

Our customer promises

Our strategic framework is anchored to our vision:

To be a trusted and respected provider of essential services that is making a positive difference to Tasmania.

This vision reflects the strong desire of the TasWater Board and employees of TasWater to focus on what really matters for our owners, customers and the community who depend on us for essential services.

In developing the LTSP we have engaged with Tasmanian customers and stakeholders to find out what they think our water and sewerage priorities should be for the future. This feedback has helped us to improve our strategic framework to reflect the value we aim to provide Tasmanians.

This LTSP has a section for each of the following customer promises and how we'll deliver on the outcomes in the years to come.

We promise to

Provide you with safe drinking water and responsibly manage your sewage

Deliver a positive customer experience to you

Give you value for money

Build culture and skills for the long term benefit of Tasmania

The outcomes you'll see

- Your drinking water is clean and safe to drink
- You have a reliable supply of water
- Your sewage is efficiently collected and transported
- Your sewage is treated and disposed of with minimal impact to the environment and its users

- You are satisfied with our service
- You find it easy to do business with us
- You are kept informed

- Your price increases are minimised
- The local economy benefits from our investment and capacity building

- Our work is conducted safely to protect our people, contractors and the communities we serve
- Our organisational culture supports us to make a positive difference to Tasmania
- Our people have the right capabilities to deliver your services

How can customers measure our success?

Our customer promises and outcomes are intended to be enduring and reflect the fact that we provide our services for the long term. Our intention is to achieve all of our customer promises and outcomes over time and our LTSP provides the roadmap for us to do this.

We have assigned measures of success to each customer outcome to demonstrate when the outcome will be achieved and to enable customers and stakeholders to assess our progress over time. In this first version of the LTSP, we have only modelled those measures of success:

- For which we have enough data to reasonably predict future outcomes based on various investment scenarios and
- That represent the key trade-offs relating to our most immediate challenges.

The measures of success we have modelled in this LTSP are highlighted in orange below.

Customer Promises	Customer Outcomes	Measures of Success
Deliver a positive customer experience to you	You are satisfied with our service	Customer satisfaction percentage
	You find it easy to do business with us	Customer effort score
	You are kept informed	Brand perception score
Give you value for money	Your price increases are minimised	Annual percentage price increase
	The local economy benefits from our investment and capacity building	Percentage of growth and capacity plans completed
Provide you with safe drinking water and responsibly manage your sewage	Your drinking water is clean and safe to drink	Percentage of customers where microbiological compliance has been achieved
		Percentage of customers where a tolerable health based target has been achieved
		Water quality complaints (per 1,000 properties)
	You have a reliable supply of water	Number of dams that plot above ANCOLD limit for tolerable risk
		Frequency of stage three water restrictions
		Unplanned interruptions (per 1,000 properties)
	Your sewage is efficiently collected and transported	Sewer breaks and chokes (per 100km main)
		Number of odour complaints (per 1,000 properties)
	Your sewage is treated and disposed of with minimal impact to the environment and its users	Number of spills to sensitive receiving waters
		Treated wastewater volume compliant with EPA requirements (percentage)
Build culture and skills for the long term benefit of Tasmania	Our work is conducted safely to protect our people, contractors and the communities we serve	Total recordable injury frequency rate
	Our culture and capabilities support us to make a positive difference to Tasmania	Cultural index

Service standards in the LTSP were modelled conservatively with outcomes based on a theoretical link between renewal expenditure (to replace ageing networks) and improvements in service reliability (fewer water main breaks, sewer spills or other service interruptions). Over the next few years, we will gather data and investigate further options that will enable us to optimise network replacement expenditure – and service reliability outcomes – for the next version of the LTSP.

How do we balance competing priorities?

Since it is not feasible to address all of our compliance and renewal challenges immediately while also minimising price impacts, it is necessary to make trade-offs between achieving various customer outcomes over time.

To do so, we sought feedback from our customers and stakeholders on a range of topics relating to investment priorities, acceptable price increases to achieve the outcomes and customer service standards related to the outcomes.

What our customers have told us

We engaged with our customers and stakeholders extensively during development of this LTSP, including focus groups, a telephone survey and individual discussions with major customers, peak bodies and our regulators.

In general, the feedback we have received is summarised below:

- Customers generally support improving compliance as a first priority (before service reliability), with drinking water quality most important, and environment and dam safety equal second
- About 40% of survey respondents support a 5% annual price increase in the early years of the LTSP (PSP3), although almost none support a higher increase
- Customer affordability remains a key issue, and focus group participants confirm this
- Customers generally prefer service standards to remain the same, rather than relaxing them to get cost decreases
- Service reliability should be focused on critical assets in the first 10 years of the LTSP (those assets that, if they fail, have the greatest impact on customers or receiving environments)
- Customers want TasWater to improve its productivity to the extent possible before increasing its prices further.

What our regulators have told us

The water and sewerage services we provide to Tasmanians must meet legislative requirements and the expectations of a range of regulators. Our key regulators are:

- The Tasmanian Economic Regulator (TER) who regulates the prices we can charge our customers and the standards of service we provide to our customers
- The Environment Protection Authority (EPA) who regulates environmental matters such as sewage treatment plant licensing and compliance
- The Department of Health and Human Services (DHHS) who regulates drinking water quality
- The Department of Primary Industries, Parks, Water and Environment (DPIPWE) who regulates water allocating licensing and dam permits.

Each of our technical regulators (EPA, DHHS and DPIPWE) have outlined their near term priorities for us which we have incorporated in our LTSP. The expectations of our regulators are summarised below.

Drinking water quality (Department of Health and Human Services)

In March 2017 the Director of Public Health provided us with a list of actions to guide our priorities in PSP3 in relation to improving drinking water quality. These priorities are:

- Remove Boil Water Alerts and Public Health Alerts in drinking water systems
- Identify and implement Critical Control Points in accordance with the Australian Drinking Water Guidelines (ADWG) framework
- Increase knowledge of source waters through catchment risk assessments, and improve source protection through capital investments designed to reduce or eliminate public health risks
- Identify opportunities to improve disinfection management and maintain suitable chlorine residuals in reticulation networks
- Improve fluoridation performance through compliance with the Tasmanian Fluoridation Code of Practice and
- Identify and implement strategies to remove and reduce Disinfection By-Product formation to levels below those specified in the ADWG.

Environment (Environment Protection Authority)

In November 2016 we established a Memorandum of Understanding (MOU) with the EPA to achieve accelerated environmental compliance and performance over the next three years. The MOU sets out the management and regulatory approach that we will adopt (in conjunction with the EPA) to improve our environmental compliance and the performance of our public wastewater network by December 2019. We have agreed to focus on capital and operational expenditure projects which target the following:

- 13 STPs that account for 70 per cent of all treated wastewater from our network (the 'Big 13' STPs)
- The top 20 key environmental risks posed by any part of our wastewater network
- Enhanced statewide control of trade waste, tankered waste and leachates entering our sewerage network and treatment plants
- Other statewide projects initiated during the MOU period that seek to either optimise wastewater infrastructure functionality through better control or divert outputs to reuse rather than direct discharge into the environment.

Dam safety (Department of Primary Industries, Parks, Water and Environment)

We are responsible for approximately 300 water and wastewater storages, lagoons and weirs that are defined as a 'dam' under the *Water Management Act 1999*. The *Water Management Act* references the Australian National Council on Dams (ANCOLD) Guidelines on Dam Safety Management 2003. We manage our dams using a dam portfolio risk assessment process in line with these guidelines.

Although the *Water Management Act* applies to all dams, the emphasis of our regulator is generally on dams with a consequence category of 'significant' or higher as defined in the Australian National Committee on Large Dams (ANCOLD) guidelines for consequence categories.¹⁷

The majority of our dams are compliant with the ANCOLD guidelines for risk assessment¹⁸ which consider both the consequence category of the dam and the likelihood of failure. However, at the

¹⁷ ANCOLD, *Guidelines on the Consequence Categories for Dams*, 2012.

¹⁸ ANCOLD, *Guidelines on Risk Assessment*, 2003.

end of PSP2, nine dams will have a risk rating that exceeds the individual and societal risk criteria under the ANCOLD guidelines on risk assessment. These dams are a focal point for our regulator in PSP3.

How we have used the customer and regulator feedback

We have assigned quantitative measures to link each project in our capital program to the customer outcomes in the LTSP. Capital projects were prioritised by comparing their relative costs and benefits (that is, their contribution to achieving measures of success for each customer outcome). Our LTSP also uses a weighting to emphasise the outcomes that our customers and stakeholders told us were most important.

Our LTSP is based on completing the highest priority projects in each year, up to a limit that is determined in part by the acceptable annual price increase.

Our regulators (EPA, DHHS, DPIPW) have provided general support for the compliance outcomes in our LTSP. The regulators understand that significant investment is required to improve compliance levels and that, while marked improvement in compliance is expected, the necessary investment needs to be spread out over time to avoid price shocks on customer bills.

Key customer outcomes over the next 20 years

Our starting point

We have been operating as TasWater since 2013, a relatively short time compared with water and sewage utilities nationally. While our predecessors had made much progress, our inherited systems have relatively low levels of environmental compliance and we face a substantial challenge to ensure drinking water for all our customers, including regional areas, is clean and safe to drink.

We also have one of the largest dam portfolios in the country with more than 320 dams, as defined under Tasmanian dam management legislation. The safety of each of these must be managed to protect communities nearby and maintain a secure supply of water.

We have significantly more infrastructure, like treatment plants and dams, per customer than other water utilities. This means that we have to spend more to operate and maintain this infrastructure compared with other utilities. This is a result of the merging of 29 council water and sewerage entities ultimately into one business (TasWater), and a reflection of the population dispersion and geography of Tasmania.

While we are addressing many of these challenges now, at the start of PSP3 in 2018 we will still have several substantial challenges to address including:

- Six townships across the state will continue to be on boil water or do not consume alerts, although we are planning for their removal in the first year of PSP3 (by August 2018)
- A number of our drinking water systems will not manage catchment risk in accordance with tolerable Health Based Targets currently in development by the Australian water industry
- Nine of our dams will still be above the level of tolerability prescribed by the ANCOLD guidelines
- We expect 85% of our total effluent volume will be compliant with licence discharge limits
- Many of our critical sewer pump stations adjacent to sensitive receiving waters are undersized and prone to overflow and are known to discharge onto beaches, recreational sites, schools and to shellfish leases
- Many of our existing assets were not designed to meet the modern day environmental and public health standards set by our regulators and
- We will continue to have a disproportionately large number of treatment plants given the dispersion of the population we service and our revenue base.

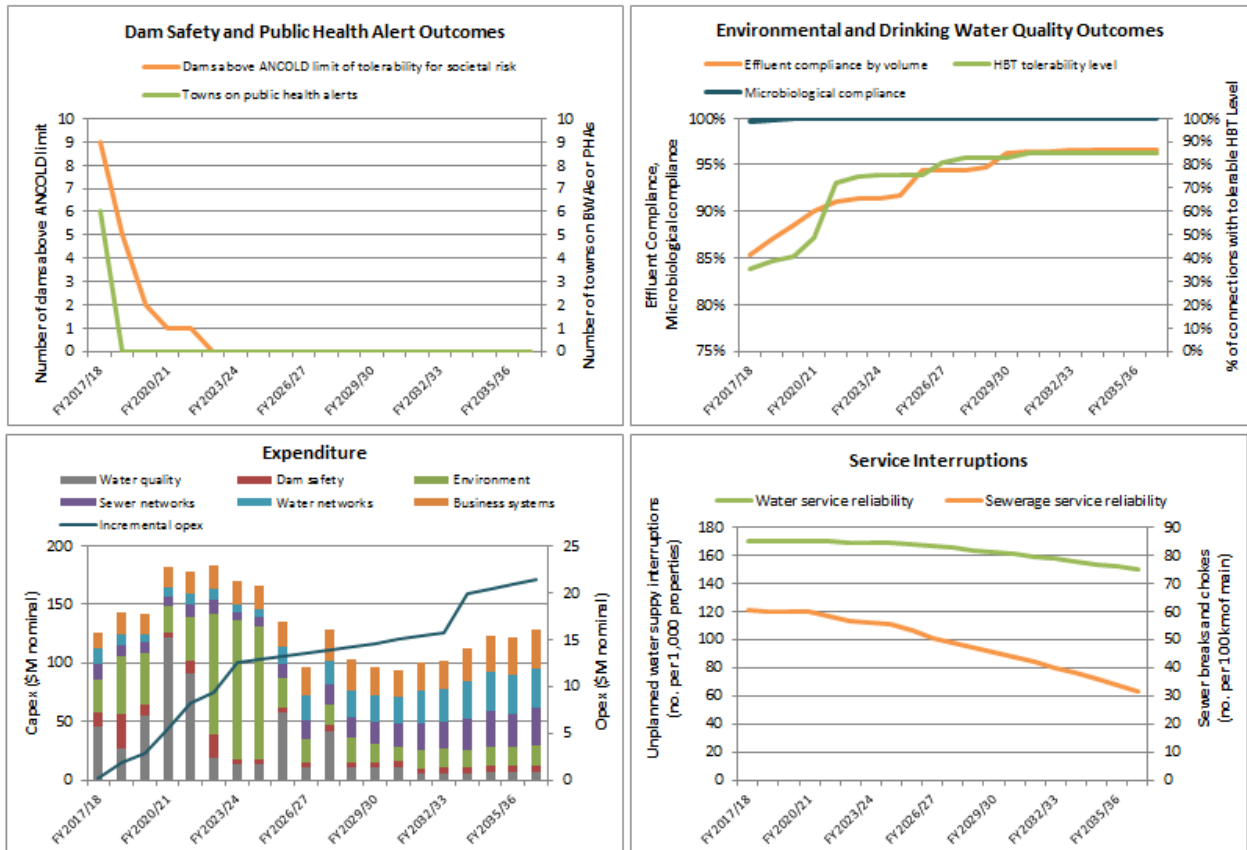
What we'll achieve in the LTSP

Based on what our customers have told us, and what we are able to deliver within the constraint of acceptable price increases while maintaining prudent levels of debt, the key outcomes we will deliver for customers over the 20-year LTSP are:

- Microbiological compliance of 100 per cent for drinking water systems
- Effluent compliance of 97 per cent by volume measured against EPA standards
- All dams are deemed safe in accordance with Australian standards by FY2022/23

- Unplanned water supply interruptions and sewer main breaks and chokes reduced to the average level for large Australian water utilities¹⁹
- To achieve value for money, we have identified \$12M in annual (ongoing) cost savings that will be progressively achieved by year four of the LTSP (end of PSP3), growing to \$17.5M by the end of the first 10 years of the LTSP and
- A managed transition to cost-reflective pricing, with price increases trending to the Consumer Price Index (CPI) rate of increase or less from FY2027/28 and beyond.

The customer outcomes, and the expenditure required to deliver these outcomes, over the 20-year period of the LTSP are shown below.



Specific outcomes in the PSP3 period of the LTSP

Over the first four years of the LTSP, which includes the PSP3 period, we will deliver the following outcomes to customers:

- Microbiological compliance of 100 per cent, removal of all boil water and public health alerts and a progressive reduction of public health risk in our water systems
- Effluent compliance of 90 per cent by volume measured against EPA standards and mitigation of environmental risks for 90 per cent of the EPA’s top 20 sites
- Risk reduction of all but one dam to within tolerable levels, with the remaining dam managed through interim measures to reduce its risk appropriately
- Maintain current service reliability standards by focusing investment on assets that, if they failed, would cause substantial service interruption or environmental impact and

¹⁹ Based on the average value for large Australian water utilities in FY2015/16, our 20 year targets are 150 unplanned water supply interruptions per 1,000 properties and 31.7 sewer main breaks and chokes per 100km of main

- Limiting price increases to less than full cost recovery to achieve the above outcomes while managing impacts to customer bills and maintaining prudent debt levels as we transition to cost-reflective pricing over time.

Given the ongoing challenges with data reliability, particularly relating to our underground assets, our initial aim for the first 10 years of the LTSP is to maintain current service standards while focusing on upgrades and repairs to critical assets. Over the course of PSP3 we intend to improve the reliability of our data and continue research into potential innovative practises to increase the life of our assets. By taking this approach we avoid over investing in potentially unwarranted upgrades during PSP3 and position ourselves to develop a more informed strategy for PSP4 and beyond.

Major capital expenditure projects to be delivered by the Plan

The major infrastructure investments listed below provide the most efficient combination of projects to deliver upon our customer promises and outcomes, and reflecting relative priorities of each. The infrastructure investment modelling has used:

- Customer and stakeholder consultation on our priorities
- Regulator priorities and feedback
- Weighting of benefits in line with these priorities
- Identification of projects and the relative contribution to outcomes.

The customer outcomes in our LTSP will be realised, in large part, through the delivery of hundreds of capital projects and programs over the 20-year period. Individual major projects greater than \$20 million are summarised in the table below (NB ongoing program expenditure is excluded).

Project	LTSP Expenditure (\$'000s)	Year of Completion
Launceston Sewer Improvement Plan (LSIP)	321,480	FY2025/26
Bryn Estyn Water Treatment Plant (WTP) Upgrade	164,358	FY2021/22
Fern Tree Water Quality Upgrade	87,120	FY2026/27
Forth WTP Upgrade	72,306	FY2020/21
Gawler River Water Treatment Upgrade	47,920	FY2030/31
Kingborough Sewerage Strategy – Treatment and Network	41,766	FY2019/20
Regional Water Supply Improvement Program (RWSIP) – Stage 2	40,798	FY2018/19
Pardoe Sewerage Improvement Plan (PSIP)	40,373	FY2022/23
Huon Valley Water Treatment Upgrade	33,918	FY2027/28
Northern Midlands Sewerage Improvement Plan (NMSIP) – Longford STP	26,374	FY2020/21
Ridgeway Dam upgrade	23,504	FY2022/23
Wynyard Sewage Treatment Plant (STP) Upgrade	22,939	FY2029/30
Northern Midlands Sewerage Improvement Plan (NMSIP) – Perth, Western Junction and Evandale	3,536+	FY2037/38+

How will our LTSP evolve over time?

Over the next 20 years we will face new challenges. Customer and stakeholder priorities will change, along with their expectations of our investment, price increases and focus.

This first version of our LTSP is a starting point and reflects customer and stakeholder preferences at the point in time of its development. To ensure the LTSP remains a living document that embodies the current and future needs of our customers, we will continue to:

- Regularly engage with customers and other stakeholders
- Build relationships with our regulators
- Improve the state's water and sewerage infrastructure to provide the services that the community expects
- Invest in and improve the quality of our data and analysis as a key driver of future sound investment decision making
- Invest in our people and in the community and
- Update our LTSP ahead of every Price and Service Plan submission.

The LTSP has been influenced by engagement with hundreds of our customers and stakeholders to ensure it is based on what matters most to Tasmanians.

Thank you to everyone who has played a part in developing the LTSP, and assisting us to realise our vision of being a trusted and respected provider of essential services that is making a positive difference to Tasmania.

