TW HPRM ref: 20/72301

4 September 2020

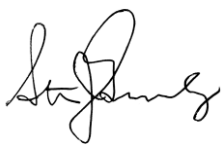
The Secretary
Legislative Council Select Committee - TWT
Legislative Council
Parliament House
HOBART TAS 7000

Dear Secretary,

TasWater welcomes the opportunity to respond to the Legislative Council Select Committee's inquiry into those of our operations which are expressed in the Committee's Terms of Reference.

While this submission seeks to ensure each Term of Reference is considered in succinct and relevant detail, we would welcome the opportunity to respond in person before the Select Committee.

Yours Sincerely



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Submission to the Legislative Council Select Committee 2020

The operations of TasWater

An overview of those aspects of TasWater's operations that relate directly the Terms of Reference as advertised by the Select Committee.

TasWater

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Executive summary

As TasWater begins its eighth year in operation, the positive impacts of a commitment to improving the delivery of safe, reliable and environmentally responsible water and sewerage services are being experienced across Tasmania.

This is borne out by the progress outlined in this submission which has seen improved delivery against each of the four key customer promises.

- We promise to deliver a positive customer experience to you
- We promise to give you value for money
- We promise to provide you with safe drinking water and responsibly manage your sewage
- We promise to build culture and skills for the long-term benefit of Tasmania.

As with every large utility there are challenges to face, but these are local, not systemic, and TasWater is well equipped to work through individual issues quickly and efficiently as they arise.

TasWater continues to meet the requirements of a diverse, complex and exhaustive regulatory framework that has remained largely unchanged since the organisation was formed in 2013. Opportunities have been identified to modernise the framework to reflect TasWater's maturation and second-generation policies, contracts and operations through three Price and Service Plans. Amendments could create greater value for customers by enabling TasWater to operate more efficiently, at lower cost, while also removing unnecessary bureaucracy for customers.

The basic day-to-day management of sewage treatment is a necessity as well as a complex challenge that involves, among other things, the application of new technology, the updating of risk management practices and anticipating the impacts of both population growth and seasonal tourism.

TasWater operates 110 sewage treatment plants and maintains 4,813 kilometres of sewer mains. Despite the age of much of the network, there is a continued reduction in the number of breaks and chokes in the system – a fact acknowledged by the Economic Regulator.

There remains however a significant cost disadvantage when compared with the majority of water and sewerage businesses across the country as a result of the state's geography, dispersed population and diseconomies of scale.

Biosolids – a biproduct of treatment plants which are mostly used as a fertiliser in agriculture – are treated and stabilised by TasWater in keeping with strict regulatory guidelines that include a classification system governing their future use. While TasWater has no active role in managing biosolids after they have left the treatment plants, oversight of the responsible contractor will ensure they are handled and used in accordance with reuse guidelines.

There are clear social, economic and environmental risks associated with trade waste entering the sewerage network, but also recognition that the need for compliance is an operating cost that some find it difficult to meet. Issues raised by some business owners needing assistance to comply with the trade waste policy have been listened to and acted upon. There are now a range of financial incentives, options and specialist advice to help businesses become compliant, including interest free loans for small business owners which have recently been increased to cover 100 per cent of the costs associated with installation.

While TasWater manages 32 reuse water schemes across the state, under strict EPA guidelines, there remain economic and attitudinal barriers to supplying more recycled water which would provide social and economic benefits to the state.

The environmental benefits of recycled water are generally acknowledged, however, there is little appetite for meeting the added cost of providing the resource either to the broader farming community or households. Among other things, the infrastructure cost of piping the product to the end user is essentially uneconomic.

For reuse water to realise its true potential there must be greater community acceptance of its merits and cost. Coupled with demand growth and a preparedness by customers to pay extra, the cost of production and delivery must be reduced. Hopefully, this will be achievable over time.

The Tasmanian Government's equity contribution of $200 million over 10 years to secure a minor shareholding in TasWater will assist in the delivery of a $1.8 billion infrastructure investment program between FY2017 and FY2026. Customers will also benefit from the capping of price increases until the end of FY2025.

TasWater continues to work with the government and our council owners to further the outcomes outlined in the MOU signed in 2018. TasWater's strategic direction, governance, management and performance continue to be overseen by an independent and skills-based Board of Directors.

Since the start of the COVID-19 pandemic, a multi-million dollar assistance program has helped domestic, community, business and industrial customers fend-off the financial impact of the virus. One component of this direct support was the freezing of prices for all customers for 12 months from 1 July 2020. This sees two consecutive years with no price increase, the cumulative revenue impact of which will continue to be felt long after COVID-19. Also providing immediate relief was a 100 per cent rebate on the FY2020 quarter four bill for eligible small businesses.

Although final figures are yet to be determined, that program may cost as much as $25 million, an expense TasWater cannot simply absorb. Income will also continue to be significantly impacted by the increase in customer payment terms to a maximum of 36 months, and an optional six-month break in payments for customers facing hardship.

Strict cost management controls have been implemented to minimise the level of loss, and the situation has regrettably forced a suspension of dividend payments to councils in the second half of FY2020. That decision was made by the TasWater Board following consultation with the owners. It was both prudent and justified, albeit creating a budget challenge for some of the owner councils. Every effort is being made to restore dividend payments, hopefully during FY2021, although there can be no guarantee at this stage.

Like most enterprise around the world, the experience of COVID-19 has forced considerable change in the way business is done – much of it positive. A newly established Business Recovery Team is assessing how the lessons learnt during the pandemic can be applied to help improve efficiency and effectiveness in satisfying the future needs and expectations of customers.

It is gratifying to the Board, management, employees and contractors that the many improvements that continue to be achieved have been publicly acknowledged by the Economic Regulator in the State of the Tasmanian Water and Sewerage Industry 2018-19 Report. The report notes advances in service delivery, the quality of drinking water supply and the performance of treatment plants.

For the second year in a row we achieved full microbiological compliance with the Tasmanian Drinking Water Quality Guidelines, meaning that all Tasmanian customers had access to safe drinking water as at 30 June 2020.

However, there is still work to do, the importance of which is matched by the commitment to continued improved performance and delivery for our customers, communities and owners.

Timeline

2005	Tasmania becomes a signatory to the National Water Initiative, a comprehensive agreement that contains a range of objectives that include: • Increasing the productivity and efficiency of Australia's water use • Providing greater certainty for investment and the environment • Planning to deal with change responsively and fairly • Promoting more flexible and profitable water use • Develop policy settings which facilitate water use efficiency and innovation.
2008-09	Consolidating the water and sewerage assets of 29 councils, three regional corporations were formed in late 2008 – Southern Water, Cradle Mountain Water and Ben Lomond Water, with a fourth shared service business, Onstream – and commenced trading on 1 July 2009.
2009-13	The three regional corporations focused on: • Delivering compliance implementation plans • Introducing a new billing system • The roll out of water metering • Gaining approval and implementing their first Price and Services Plan.
2012	Facilitated by Local Government Association Tasmania, Owner Councils in all regions agreed to create a single water and sewerage corporation to gain a range of benefits, efficiencies and savings.
2013	TasWater was formed and registered as a proprietary limited company under the *Corporations Act 2001* and commenced trading on 1 July 2013.
2017	Draft legislation is released to allow the Tasmanian Government to take ownership of TasWater. A Legislative Council select committee is established to inquire into the ownership issue, and tables its final report in November.
2018	The Tasmanian Government, TasWater and the Chief Representative of the Owners' Representatives Group sign a Memorandum of Understanding to work together to further reform the important water and sewerage sector. The Parliament of Tasmania passes legislation allowing The Tasmanian Government to become a shareholder in TasWater.
2019	The TasWater Capital Delivery Office commences operation on July 1 to manage TasWater's Capital Works Program from inception to completion.

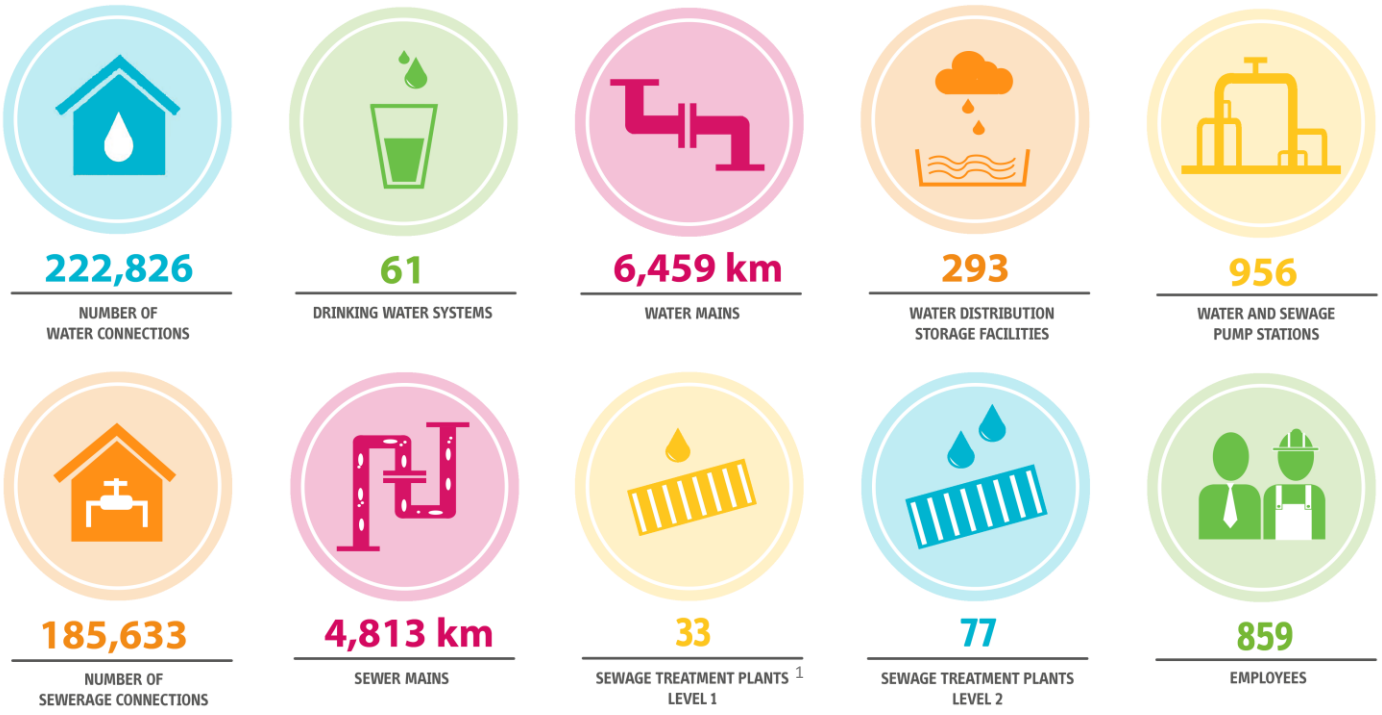
Strategic vision

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

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

To deliver this vision, we are focused on delivering four key customer promises that are outlined in our *Long-Term Strategic Plan 2018-2037*:

- We promise to deliver a positive customer experience to you
- We promise to give you value for money
- We promise to provide you with safe drinking water and responsibly manage your sewage
- We promise to build culture and skills for the long-term benefit of Tasmania.



Information as of July 2020

[1] Level 1 sewage treatment plants treat small volumes and are regulated by councils. Level 2 sewage treatment plants are regulated by the EPA.

Terms of reference

1. The impact of compliance with regulated bodies

Regulation defines the essential parameters of TasWater's operational conduct – as it should.

There are nine key, independent regulatory bodies with specific responsibilities relevant to our operations. While this is not an exhaustive list, it is indicative of the strict oversight of our business.

- The Department of Health for drinking water quality
- The Environment Protection Authority for discharges to the environment, reuse water, biosolids classification and stabilisation
- The Tasmanian Fire Service for essential fire services, including hydrant pressure
- The Tasmanian Economic Regulator for the overall performance of the business and pricing
- The Ombudsman for complaints and records management
- The Tasmanian Audit Office for auditing statutory accounts
- The Dam Safety Regulator for the safety and maintenance of dam infrastructure
- WorkSafe Tasmania for safety performance
- The Department of Primary Industries, Parks, Water and Environment for water entitlements and the National Water Initiative.

However, TasWater is not motivated by regulation alone. We have an overarching commitment to providing customers with quality, safe drinking water, reliable sewerage services, environmental protection and value for money. Since our establishment in 2013, we have made significant progress towards fulfilling these commitments, albeit there is always more that can be done.

There are numerous compliance related legacy issues arising from TasWater bringing under one roof a network containing much infrastructure that had historically been inadequately maintained and suffered from underinvestment in upgrades. Modernisation is ongoing through the delivery of a $1.8 billion infrastructure investment program that will see investment throughout the state.

Complying with regulation governing the delivery of contemporary water and sewerage services comes at a cost. This stems from our geography, dispersed population, and an extraordinary scale disadvantage when compared with similar sized water services nationally and internationally.

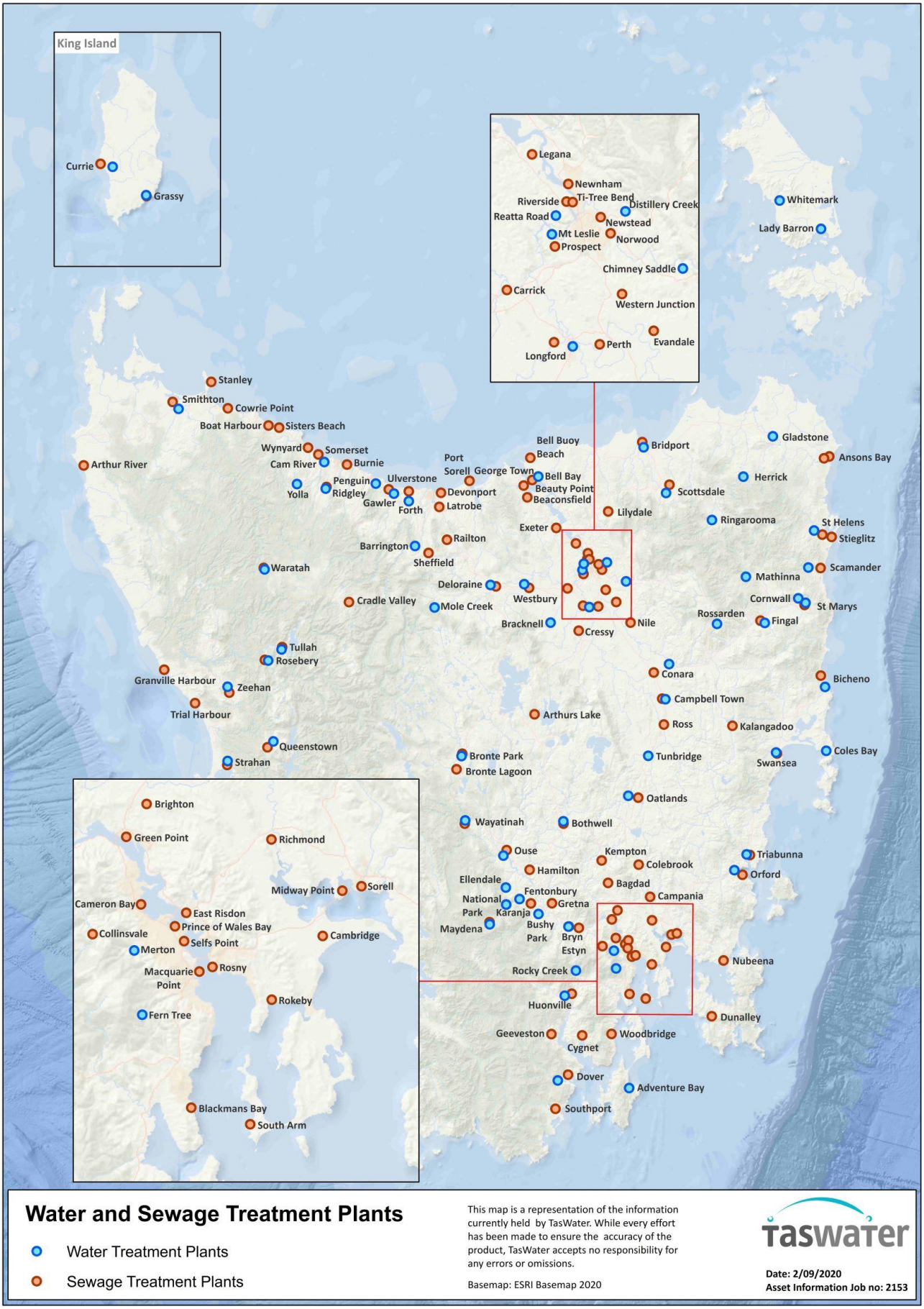
Other challenging factors include the age, number, variety and location of network assets, and the limited availability of skilled vendors and equipment across the state.

A clear illustration of this disproportionate cost is a 2018 survey of water utilities in Australia that showed us maintaining and operating 38 per cent of the nation's water treatment plants and 37 per cent of its sewage treatment plants, but only receiving two per cent of the total national revenue.

The costs of our operations are benchmarked against other water authorities throughout Australia. by the Water Services Association of Australia (WSAA). The 2018 results show that in many areas of our operations, we incur a higher cost than the Australian median.

Particularly significant are the relatively high costs to repair and maintain the pipes in our water and sewerage networks. This is in part due to the application of a contemporary compliance framework to aging and historically undermaintained infrastructure.

Tasmania's water and sewerage treatment plants (dams not shown).



Despite the financial challenges associated with meeting compliance obligations, TasWater has consistently proposed tariffs below the maximum allowable revenue. At its last pricing submission, the regulator approved our maximum allowed regulated revenue, but to reach this level would have seen price increases of 8 per cent per annum over the PSP3 period. Recognising community concerns regarding affordability TasWater took the decision to only apply a 4.1 per cent increase in the FY2019 financial year with 3.5 per cent price caps applying for FY2020 and FY2021.

Productivity improvement activities have achieved operating efficiencies valued at over $28.7 million since the commencement of TasWater in 2013 through to the end of FY2020. These savings offset the costs of meeting the compliance obligation to maintain dams, and upgrade water and sewage treatment and the network of pipes. There still remains the possibility that longer term there will be a need to review the pricing cap and/or slow down the rate of investment, particularly with the impact of COVID-19 and the associated loss of revenue.

We have a legal as well as a social obligation to provide our customers with water that meets Tasmanian and Australian Drinking Water Guidelines. This requires regular testing of our water systems which is overseen by the Department of Health. In August 2016, we resolved to remove Boil Water Alerts and Do Not Consume Notices in 24 rural and regional towns within two years. Thanks to the commitment and dedication of our employees and contractors, we achieved that objective across no less than 28 towns, which required the construction of 17 water treatment plants and four major pipelines, along with other related infrastructure improvements.

This important milestone sees customers in these towns able to drink water straight from the tap.

Achievements such as these were specifically acknowledged in the Tasmanian Economic Regulator's 2018-19 State of the Industry report which acknowledged:

- The high quality of drinking water in Tasmania (see Appendix 2, Figures 3 and 4)
- The drop in customer complaints (see Appendix 2, Figure 9)
- Improvement in the compliance of treated effluent discharged to waterways (see Appendix 2, Figure 1)
- Improved performance of sewage treatment plants
- Customer bills that were typically lower than in other states.

Of course, challenges remain, not just in future-proofing and upgrading inherited infrastructure, but in developing improved early warning systems in the case of unplanned events. These are a key focus of our current improvement program.

Because much of the legislative and regulatory framework under which we operate has been in place since TasWater was established in 2013[2], it seems both timely and opportune for a review to ensure it remains relevant and does not unnecessarily complicate our ability to meet customer needs and expectations as well as accepted standards of best practice.

With this in mind, we have reviewed the framework and identified potential change areas. The Board has endorsed this work and we are now actively discussing possible reform opportunities with the Tasmanian Government.

Refer to Appendix 3 for a table of potential legislative and regulatory changes.

[2] In many instances our legislative framework reflects principles prepared leading into the formation of the regional corporations in 2009.

Key documents and links – compliance

Water and Sewerage Corporation Act 2012 An Act to provide for the establishment of the Tasmanian Water and Sewerage Corporation, for the transfer to that Corporation of the assets and liabilities of the four corporations established under the *Water and Sewerage Corporations Act 2008.* https://www.legislation.tas.gov.au/view/html/inforce/current/act-2012-051
Water and Sewerage Industry Act 2008 An Act to provide for the establishment of an economic regulatory framework for the water and sewerage industry, including the establishment of a licensing regime and providing for the regulation of prices, customer service standards and performance monitoring of that industry. https://www.legislation.tas.gov.au/view/html/inforce/current/act-2008-013
Department of Health water quality information. https://www.dhhs.tas.gov.au/publichealth/water
Tasmanian Drinking Water Quality Guidelines. These Guidelines are concerned with the quality and safety of drinking water from a health point of view and are designed to facilitate the protection of public health. https://www.dhhs.tas.gov.au/__data/assets/pdf_file/0013/205006/1._drinking_water_guidelines_FINAL_2Nov2015_publish.pdf
Office of the Economic Regulator – Customer Service Code A code to specify standards and conditions of service and supply with which a regulated entity (and its agents) must comply in providing certain regulated services to customers. https://www.economicregulator.tas.gov.au/Documents/Water%20and%20Sewerage%20Customer%20Service%20Code%20%28Version%206%29%20-%2025%20November%202019.PDF
Water and Sewerage Industry (Customer Service Standards) Regulations 2019 The Water and Sewerage Industry (Customer Service Standards) Regulations 2019 specify matters that must, or may, be included in the Customer Service Code. https://www.legislation.tas.gov.au/view/whole/html/inforce/current/sr-2019-069

2. Operations in regard to the impact on business required to comply with Trade Waste Regulations

Trade waste refers to any liquid waste generated by business that does not include domestic sewage from toilets, hand basins and showers. Trade waste includes fats, food, oil, grease, solvents, paints, pesticides and other chemicals. If not managed appropriately it causes damage, blockages and spills and can disrupt and significantly increase the cost of the sewage treatment process, harm the environment and present a safety risk to TasWater staff and the general public.

We accept that there is a cost impost on some businesses in meeting required standards in trade waste management. Trade waste pricing in Australia is based on the guiding principles of the Council of Australian Governments (CoAG). These include customers paying for the use of the service, full cost-recovery being in place, and no cross-subsidies of services between customers.

Prior to the 2009 water and sewerage reforms, there was no consistent system of trade waste charging or monitoring in Tasmania. This saw the state significantly out of step with other Australian states and territories that had started introducing structured pricing and compliance regimes from the beginning of that decade. Some of the 29 council areas were reasonably advanced with trade waste management, where others had made much less progress.

Combined with Tasmania's already degraded and in many instances under maintained infrastructure, this situation saw a high number of trade waste related blockages, service interruptions and environmental harm. It also meant the cost of processing this waste and repairing the system was paid for by all customers, rather than through the user pays systems that had started to be adopted by other Australian jurisdictions in the decade prior.

The regional water corporations all had trade waste policies in place prior to the formation of TasWater in July 2013 with the first TasWater Trade Waste Policy approved in June 2014. This policy was updated and approved by the Board on May 2018.

A commercial compliance program was introduced in 2015, with commercial customers required to install suitable pre-treatment from that point on. An 18-month timeframe was allowed for customers to complete the installation once they were made aware of the requirement.

In many cases, trade waste customers in Tasmania have operated under far less onerous conditions than their mainland counterparts, while trade waste management practices are brought up to date with the rest of the country.

TasWater has increased direct collaboration with business owners to minimise this impact and enable customers to meet their obligations under national guidelines. This includes:

- Adopting a conciliatory approach towards those businesses that struggle to meet compliance obligations for trade waste management
- Explaining to business owners the critical role compliance plays in safeguarding Tasmania's complex water and sewerage system
- Offering options to businesses on how to deal with trade waste
- Extending the period during which businesses can achieve compliance
- Assisting by providing drawings, plans and other information to make compliance as easy and affordable as possible
- Offering financial assistance through interest-free, four-year loans to help spread the cost to business over time[3]
- A trade waste helpline to assist customers identify effective and affordable solutions.

[3] As at 30 June 2020, 62 customers have used this program, with an average investment cost of $12,588.

However, there remains a social, economic and environmental responsibility on all business owners to comply with TasWater's trade waste policy, which is based on national guidelines and is in line with existing national practices.

There are a range of risks from trade waste entering the wastewater network:

- Resultant blockages or damage can disrupt services to hundreds of neighbouring homes and businesses
- Spills can force the closure of public spaces and pose a hazard to our employees, contractors and the general public
- The safety of TasWater employees operating our treatment plants and servicing our network can be jeopardised when dangerous substances, particularly flammable chemicals are allowed into the system
- Where treatment plants are unable to cope with excessive trade waste, there is a resultant threat to the environment and vital industries such as tourism and seafood production
- Excessive trade waste diminishes the commercial viability of re-using water and biosolids for agriculture
- The life of our underground assets can be severely reduced thereby bringing on early renewals and increasing the cost to provide the service.

Commercial Customers

Of our 3,700 commercial customers, approximately 2,800 have installed pre-treatment systems and achieved the required standard of compliance. These systems include either grease traps[4] or grease guardians[5] which filter as much material as possible from the trade waste before it enters the sewerage network. We then assess the volume of remaining trade waste that needs to be treated at our treatment plants, and the customer pays a fixed trade waste charge based on that assessment.

All new commercial customers must achieve compliance during development.

[4] Preferred solution

[5] Where grease traps are not practical

Industrial Customers

There are 80 industrial customers in Tasmania that are collectively responsible for around 90 per cent of Tasmania's trade waste. We are working to ensure they either meet or are working towards full compliance with contemporary trade waste agreements.

Legacy trade waste agreements still in place have meant that many industrial customers are still to upgrade their pre-treatment to reduce the risk to the sewerage system. For major customers, we are looking at the best arrangement to reduce the cost to treat their waste so that their on-going fees are as low as possible.

There are a few customers who would be classed as fully compliant with a contemporary agreement. Our strategic focus will be on working with industrial customers over the next few years, to ensure they are all on contemporary agreements and are working towards compliance.

In some cases, the final outcome may involve accommodating untreated waste in the sewerage system, with on-going fees to recover the associated costs. Most customers however will be required to treat their waste to meet the National Trade Waste Acceptance guidelines, and tariff-based charges will be applied. These tariffs will be calculated based on the average cost to treat across the state. Work is ongoing to improve tariff structures to ensure they accurately reflect the real cost to treat.

Key documents and links – trade waste

Trade Waste Customer Category Guideline V2.1 The purpose of this guideline is to provide additional detail to support the trade waste customer categorisation methodology described in TasWater's Trade Waste Charges Policy and Price and Service Plan https://www.taswater.com.au/ArticleDocuments/318/Trade%20Waste%20Customer%20Category%20Guideline%20V2.1.pdf.aspx
Commercial Trade Waste Customer Pre-Treatment Guideline 2019 The TasWater Pre-Treatment Guideline provides information and assistance to customers and pre-treatment system designers on TasWater's liquid trade waste pre- treatment requirements. https://www.taswater.com.au/ArticleDocuments/565/Commercial%20Trade%20Waste%20Customer%20Pre-Treatment%20Guideline%202019.pdf.aspx
National Trade Waste Acceptance Guidelines National guidelines for the acceptance of industrial trade waste. https://www.waterquality.gov.au/sites/default/files/documents/acceptance-trade-waste-industrial-waste.pdf

3. The opportunity for reuse water expansion for irrigation

TasWater is responsible for 32 reuse water schemes across the state which, under strict EPA guidelines, enable treated effluent to be re-used, primarily for agricultural purposes. The Water and Sewerage Corporations Act 2012 acknowledges its importance, with one of the principal objectives being "*to encourage… the re-use of water on an economic and commercial basis*."

Exploring options to increase our capacity to re-use water is an important element in our commitment to environmental protection and supporting economic development in Tasmania. Part of this commitment includes the improvements made in recycled water compliance for existing schemes (see Appendix 2, Figure 2). Increasing the amount of water available supports the continued expansion of productive agricultural land in Tasmania, with this sector an identified economic driver for the state. There is also community value, with reuse water able to increase the amenity of regional towns and lessen reliance on treated water for purposes other than drinking.

The cost of producing Class A water, which for all intents and purposes is the same or better than raw water, is prohibitively high but falling. If it becomes affordable, it has the potential for reuse water to be used on a greater range of crops, offset pressure on potable water resources, and reduce the regulatory burden.

Depending on the composition of the recycled water, reuse can have a dual benefit. Some nutrients such as phosphorus and nitrogen can be harmful if released into waterways, but in turn are desirable to farmers as they will improve soil quality and productivity.

While there are many options to increase the use of recycled water, most involve the construction of pipelines and in some cases the provision of on farm equipment such as pivot irrigators. While reuse water is reliably and consistently produced, irrigation demand varies throughout the year, resulting in the need for significant investment in large storages to balance available supply with demand. There are options for expanding existing reuse schemes and we continuously analyse the feasibility of these. Any resultant proposed infrastructure changes would take several years to complete given limited availability of funding.

We are fully committed to achieving reuse where feasible, however this remains commercially expensive and somewhat risky. Costs to TasWater outweigh prospective earnings, and there are other barriers inhibiting the more effective and sustainable utilisation of reuse water, including:

- The aggregate operating costs incurred to meet the seasonal demand for irrigation water as a result of the number and dispersion of irrigation schemes
- The cost of piping water from the treatment plant to the land owners' property can involve significant cost to install transfer pipes, construct adequate storages along with the ongoing operational expense of pumping, electricity and chemicals
- There is often a need to install additional levels of treatment to ensure effluent can be used for other purposes
- Regulatory requirements which make it difficult maximise the overall volume of reuse
- The level of salinity from sea water incursion and trade waste inputs. Salinity can be reduced by mixing potable water with effluent to achieve acceptable levels or removing it at the source, however comes at a cost, which further erodes financial viability
- The need to encourage private investment and acceptance of a sustainable pricing model that fully covers the true overall cost
- A commonly held community view that recycled water is a waste product, rather than a potentially valuable resource, which is somewhat contrary to the community's usually positive view of recycling in general.

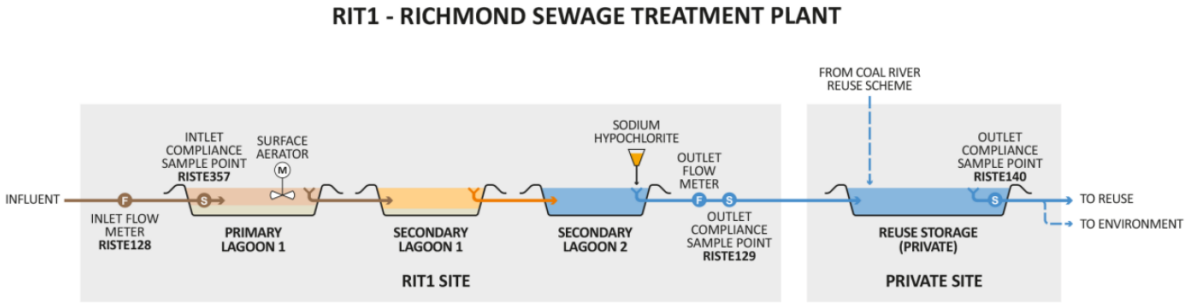
<u>Pricing and economic viability</u>

Residential customers were surveyed in December 2019 and asked whether, and how much extra they would be willing to pay to support additional water reuse. Approximately 40 per cent were unwilling to pay anything additional. The remaining 60 per cent supported increasing reuse water supply but were only willing to pay an extra $6 per year. This level of support was below a significant majority (70 per cent) and would not be a sufficient to increase charges to support increased reuse water.

If the true value of the product is to be realised, the cost of supply must progressively be reduced or offset, while the product price must increase to reflect its productive value to farmers more accurately.

Alongside wider acceptance of its economic worth, the cost of developing recycled water schemes could be offset by government support for one-off capital investments. The introduction of funded or recoverable Community Service Obligations similar to those in place in many other jurisdictions would make reuse more economically viable.

Example



Sewage treatment plants across Tasmania all produce treated effluent which will either be released to the environment or reused.

In Richmond, sewage is treated in a series of ponds that remove solids and neutralise pathogens.

The remaining water is then classified, and if suitable for agricultural use it is pumped into the Coal River Reuse scheme.

While reuse water is produced year-round, it's use for agriculture is generally seasonal which requires it to be stored until needed.

For more information on the safe application of reuse water on land and with livestock refer to the Water Reuse Factsheets in Appendix 5.

Key documents and links – reuse water

TasWater website link for Recycled water https://www.taswater.com.au/Customers/Recycled-Water/Recycled-Water
EPA Tasmania – Managing Effluent Reuse https://epa.tas.gov.au/regulation/wastewater/useful-resources-for-wastewater-managers/managing-effluent-reuse
State Policy on Water Quality Management 1997 Tasmania's State Policy on Water Quality Management 1997 actively encourages the sustainable reuse of treated effluent from wastewater treatment plants. https://epa.tas.gov.au/policy-site/Pages/Water-Quality-Policy.aspx
EPA Effluent Reuse Feasibility Study Guidelines, August 2011 Some Permits and Environment Protection Notices (EPNs) require a feasibility study to be undertaken to determine whether it is feasible to divert effluent to reuse rather than discharging it to the environment. The Effluent Reuse Feasibility Study Guidelines, August 2011 describe what information must be provided to the EPA in order satisfy these requirements. https://epa.tas.gov.au/Documents/Reuse_feasibility_Guidelines.pdf
Environmental Guidelines for the Use of Recycled Water in Tasmania, December 2002 For reuse of Class B effluent, the Environmental Guidelines for the Use of Recycled Water in Tasmania, December 2002 outline the environmental issues that must be addressed in a Development Proposal and Environmental Management Plan (DPEMP) for an effluent reuse scheme. The guidelines also describe ongoing management requirements. https://epa.tas.gov.au/Documents/Use_of_Recycled_Water_December_2002.pdf
Wastewater Reuse EMP Review Guidelines Effluent reuse schemes must be monitored to make sure that they do not cause environmental harm. If there is evidence of environmental harm, or if a scheme changes significantly, the Director of the EPA may require the Environmental Management Plan (EMP) for the activity to be reviewed. The Wastewater Reuse EMP Review Guidelines may be used to assist this process. https://epa.tas.gov.au/Documents/Wastewater%20Reuse%20EMP%20Review%20Guidelines.pdf

4. The management of sewage treatment including the disposal of the treated waste biosolids

Sewage treatment

The effective and efficient management of sewage is essential in preserving the wellbeing of Tasmanians, the amenity of our towns and cities, and the health of our environment and waterways.

TasWater operates 110 sewage treatment plants and maintains 4,813 kilometres of sewer mains to treat wastewater, remove contaminants and suspended solids from domestic and commercial sources, and neutralise harmful pathogens.

As noted in the most recent Economic Regulator's State of the Industry Report released in May 2020, our performance of 37 breaks and chokes per 100 kilometres of sewer main in 2018 -19 is approximately 18 per cent less than the number in the previous year. This was comfortably below the 2018-19 service standard target of 65 per 100 kilometres of sewer main and is in line with national levels. The average response time to the most serious bursts and leaks (water and sewer) was also significantly reduced in 2018-19 from previous years with further reductions noted in FY2020 (see Appendix 2, Figure 5).

However, we continue to work hard to reduce the impact of treated effluent on our environment and meet other service reliability targets as we progress the replacement and upgrading of inherited aging infrastructure.

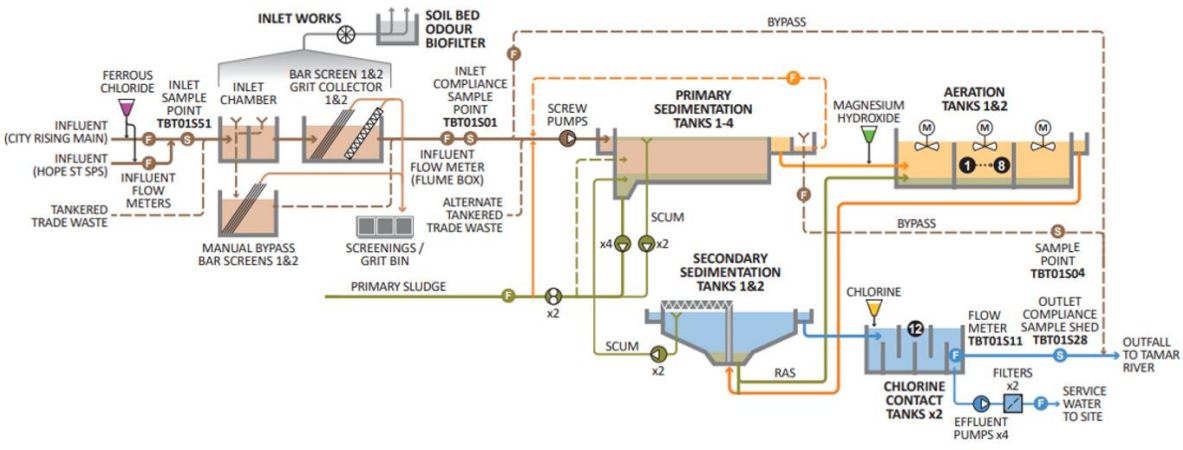
An ongoing concerted effort is required to stay abreast of latest technology developments and the risks and opportunities that come with their introduction. By maintaining our commitment to staying abreast of emerging research and developments, we ensure our processes and risk management practices remain current. This includes mitigation measures for increased cyber and network security concerns which will continue to create new areas of focus and new challenges for TasWater.

We must also plan for the future and monitor predictions of population growth and visitor numbers allowing us to make informed decisions on the timing and funding for future network expansion. A growing population, and the seasonal population booms that tourism brings will put more pressure on our existing network infrastructure and treatment plant performance.

We also hold an important role in supporting the Tasmanian economy by providing efficient water and sewerage services to other sectors that are driving economic growth in Tasmania. These include metals processing, advanced manufacturing, wood, paper, mining, seafood, meat, dairy and wine industries.

Sewage treatment process

TI TREE BEND SEWAGE TREATMENT PLANT



Sewage is collected throughout the state from many sources including toilets, sinks as well as trade waste customers.

The first stage of treatment sees filtering remove physical objects such as vegetable matter, wet wipes and other larger objects that have not broken down.

At the next stage, particles that settle or float such as fat, oil, grease and other trade waste are removed from the primary sedimentation tanks.

Aeration tanks oxygenate the sewage to encourage the growth of helpful micro-organisms. These micro-organisms remove nutrients and help settle remaining solids in the secondary sedimentation tanks.

The wastewater is then chlorinated to neutralise harmful pathogens and flows into the environment as EPA approved treated effluent or as reuse water.

Biosolids

Biosolids describes sewage sludge that has been stabilised to required standards and which are usually used as a fertiliser on agricultural land or sent to a composting facility for reprocessing.

There are strict regulatory guidelines governing the processing of biosolids under which a classification system limits their use according to the assessed level of risk.

TasWater has two main ways of treating sewage sludge:

- Under biosolids guidelines, sludge that has settled at the bottom of TasWater lagoons for up to five years, if fully mixed before being dredged, is classified as stabilised to Grade B standard and can be sent direct to land use
- Digesters are used at our treatment plants to process sewage sludge under elevated temperature for a set number of days, which achieves stabilisation in accordance with Tasmania's biosolids guidelines. The product is de-watered to assist handling and transport.

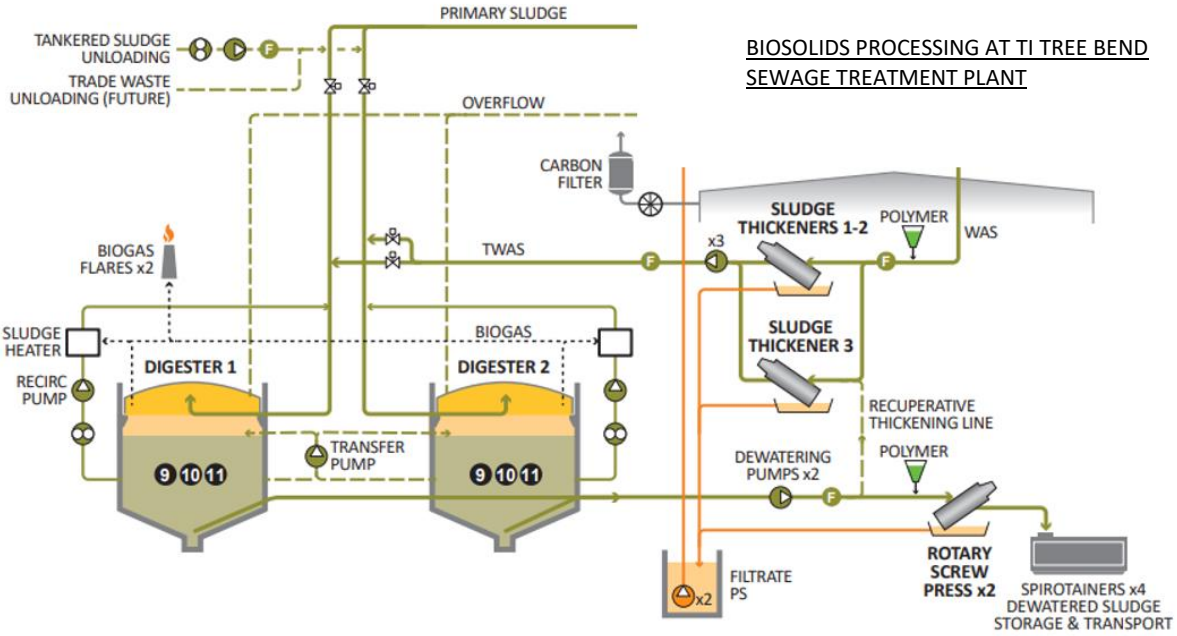
The biosolids guidelines are used to determine the 'contaminant' and 'stabilisation' grades of the product from which the permitted use can be decided along with the management practices and constraints that are required. (See Appendix 1: Contaminants and stabilisation.)

TasWater is responsible for determining those classifications before the product is transported offsite and is re-used in accordance with the guidelines. This may include reprocessing at EPA-approved facilities.

TasWater is two years into a three-year contract with Conhur Australia for the transport and disposal of biosolids to EPA approved agricultural land or composting facilities, as required. TasWater does not own or operate any biosolid management sites, and Conhur is now planning to establish its own composting facility at Dunedin, St Leonards.

Even after leaving our sites, TasWater continues to ensure that:

- The biosolids are appropriately handled and used in accordance with the reuse guidelines
- Transparent records are kept and available
- End users are open to general auditing and inspection as considered necessary.



Biosolids treatment

The sludge from the sewerage treatment process is pumped into anaerobic digesters.

The sludge is heated to encourage the growth of different micro-organisms which breaks down and stabilises this organic matter. This process also further removes pathogens.

Following this process it is dewatered and the remaining biosolids are stored to be transported.

TasWater employs a contractor to remove these biosolids from our treatment plant and transport them for beneficial reuse.

Key documents and links – sewage treatment and biosolids

EPA Biosolids Reuse Guidelines 2020 These guidelines provide essential information on how to classify and manage biosolids, and how to reuse them safely. https://epa.tas.gov.au/Documents/Tasmanian%20Biosolids%20Reuse%20Guidelines%202020.pdf
The Approved Management Methods for Biosolids Reuse 2020 The Approved Management Method for Biosolids Reuse – July 2020 provides the minimum legal requirements for classification and reuse of biosolids in Tasmania. https://epa.tas.gov.au/Documents/AMM%20for%20the%20Reuse%20of%20%20Biosolids%202020.pdf
Managing contaminated biosolids Information Bulletin 105 Classification of Contaminated Soils (IB105) may apply to the management of soil-like (non-liquid) biosolids when they contain elevated levels of contaminants. https://epa.tas.gov.au/Documents/Information%20Bulletin%20105%20-%20Classification%20of%20Contaminated%20Soils%20(IB105)%20V3_2018.pdf
EPA Tasmania website This site provides all relevant links to documentation about the management of biosolids in Tasmania https://epa.tas.gov.au/regulation/wastewater/useful-resources-for-wastewater-managers/biosolids
ANZBP EPA Tasmania is a member of the Australian New Zealand Biosolids Partnership (ANZBP), whose role is to support the sustainable management of biosolids in Australia and New Zealand. http://www.biosolids.com.au/

5. The effect of TasWater's dividend policy on Local Government revenue

Due to the impact of COVID-19 on TasWater revenue, the Board and management met with and sought feedback from owners prior to making the decision to suspend the payment of dividends for the second half of FY2020. This equates to $10 million that would otherwise have been distributed amongst the state's 29 local councils.

And while it is possible the Board may be in a position to consider resuming dividend payments at some level during FY2021, at this time there can be no certainty that will be the case.

Regrettably, the suspension of dividend payments has financially impacted councils and the municipalities they serve. Only Councils can provide individual details of that impact.

The idea of borrowing to help finance a dividend payment was ruled out as financially imprudent, as it would have resulted in a more detrimental, long-term impact on future dividends. We have however increased borrowings to allow us to deliver our full capital program in FY2021 as we recognise the important role this will play in supporting Tasmania in its recovery from COVID-19.

In addition to extending for a further 12 months TasWater's earlier commitment to freeze prices for the year to June 2020 for all customers, more than 6,889 eligible small business customers have so far benefited from a rebate of up to 100 per cent on their TasWater bills for the period between 1 April and 30 June 2020. We continue to create awareness of the rebate so further customers will self-identify so we capture as many eligible businesses as possible and provide the rebate to them.

The overall impost on our revenue of the price freeze and rebate scheme was initially estimated to reach up to $25 million, although final figures will not be known for some time. The cumulative effect of two years of consecutive price freezes will also have long term budget impacts that will stretch beyond the immediate impacts of COVID-19.

Other reductions in revenue include an expected decline in developer activity and an increase in bad debts. And while COVID-19 continues to impact the community, TasWater has expanded the provision of the financial hardship support to include to include all residential property owners, businesses, not-for-profit organisations and some club/sporting organisations.

Customers have been given more time to pay through increasing payment arrangement terms from 12 to 36 months. These extended timeframes will assist customers with budgeting as they work their way through the economic and financial impacts of the pandemic.

We also offer a break from payments of up to six months to provide temporary relief and some 'breathing space' until circumstances change. Dedicated case managers are working confidentially and sensitively with customers that request financial assistance.

This targeted COVID-19 financial support provided to customers and the uncertainty associated with our ability to recover future charges is the primary cause of the $15 million underlying loss recorded for FY2020. A higher loss is anticipated in FY2021.

TasWater regrets the need to suspend dividend payments While the dividend suspension has had a negative impact on councils, the small business rebate and price freeze has provided immediate financial support for struggling businesses and households across the state.

Appendix 4 provides dividend information for each council for FY2019, the last year the full dividend was paid. In that year total Tasmanian council revenue was around $900 million, with the $20 million TasWater dividend representing around 2.2 per cent of total revenue. Also included is a summary of dividends paid against the Corporate Plan projections for each year of TasWater's operation.

For TasWater's part, we are focused on the continuing management of costs to assist in restoring dividend payments as soon as possible. Discretionary spending has been minimised including

difficult decisions to defer a number of important programs and projects, and we continue to take steps to reduce forecast operating costs.

Key documents and links - dividends

TasWater Dividend Policy TASPOL17 The Water and Sewerage Corporation Act 2012 (WSCA) requires that the Board determine a Dividend Policy. The Constitution and Shareholders' Letter of Expectations reiterate this requirement and stipulate that the Dividend Policy must be determined in consultation with the Owners' Representatives. https://www.taswater.com.au/ArticleDocuments/475/TASPOL17%20-%20Dividend%20Policy%20-%20v5.0.PDF.aspx
TasWater Owners' Representatives Group Charter TASCHT01 The duties, functions, roles and responsibilities of the Owners' Representatives Group (ORG) are primarily determined by TasWater's Constitution and this Charter. https://www.taswater.com.au/ArticleDocuments/474/Owners%20Representative%20Group%20Charter%20V3%20%20May%202018.pdf.aspx
TasWater Owners' Representatives Code of Conduct https://www.taswater.com.au/ArticleDocuments/473/Owners%20Representative%20Code%20of%20Conduct%20V3%20May%202018.pdf.aspx
TasWater website link for COVID-19 support program https://www.taswater.com.au/documents/rotating-banner/taswaters-residential-and-business-support-during-covid-19
Financial assistance during COVID-19 factsheet: https://www.taswater.com.au/ArticleDocuments/253/TasWater%20Fact%20Sheet%20ASSISTANCE.pdf.aspx

6. The delivery and timeliness of water services to Tasmanian communities

Overview

TasWater's vision is to be "a trusted and respected provider of essential services that is making a positive difference to Tasmania".

Our Corporate Plan 2020–24 outlines our strategy to deliver safe, reliable, environmentally responsible water and sewerage services that support the health and wellbeing of all Tasmanians and the enjoyment of our lifestyle.

We play an important role in supporting the Tasmanian economy by providing efficient water and sewerage services to businesses including those sectors that drive economic growth in Tasmania, such as processed metals, tourism, manufactured goods, wood, paper, mining, seafood, meat, dairy and wine industries.

Specialist teams work across all aspects of our customer facing activity including customer service, metering, new connections, trade waste, repairs and maintenance, and major capital projects.

Much of this activity is covered by our Customer Charter which provides reasonable expectations around our services, processes and responsibilities.

Customers are also protected by our Customer Contract that provides the terms under which we will provide services. The Contract has been approved by the Tasmanian Economic Regulator and sets out rights and obligations including customer rights in any dispute with us. It is a legally enforceable document and is a requirement of the Water and Sewerage Industry Act 2008, Section 60.

The Tasmanian Economic Regulator (TER) issues a regularly updated Customer Service Code which details the minimum service standards and conditions that we will provide, and customer rights and responsibilities.

Servicing customers

Our customer services, social media and customer advocacy teams answer calls, emails and social media posts with questions about issues such as accounts, billing, outages and leaks, as well as managing complaints. Customers can escalate complaints internally, and ultimately to the Tasmanian Ombudsman. For more information regarding customer service performance see Appendix 2, Figures 6-10.

The customer support team is available to provide specialised assistance for customers experiencing financial hardship with our customer support program.

<u>Customer Charter goals:</u>

- We will take no more than 48 hours to commence action to resolve a complaint or unresolved enquiry.
- We will take no more than 10 business days to provide a reply to a complaint or unresolved enquiry.
- If this timeframe cannot be achieved, we will provide written notification explaining why the timeframe could not be achieved and when we will provide a reply to the complaint or unresolved enquiry.

Metering

Our meter reading team is responsible for remotely and physically reading water meters quarterly to determine water usage. TasWater has a rolling program to renew water meters state-wide, with this program now being delivered by the TasWater CDO.

Trade waste

Our trade waste team is responsible for speaking with customers about their trade waste responsibilities and helping determine pre-treatment requirements

From the Customer Charter

Trade waste charges apply to customers that discharge trade waste to the sewer network, or tankered waste to our treatment plants. Charges are determined based on the type, volume and quality of trade waste discharged to the sewer. Trade waste charges are levied to cover the cost associated with the collection, transport and treatment of approved trade waste.

Service delivery

Our customers report issues with our infrastructure such as water or sewerage leaks through our customer services team, with action taken by the service delivery team. This sees an operator sent out to inspect the site and undertake emergency works or schedule a longer-term fix for the problem as planned works. For response time performance, see Appendix 2, Figure 5.

Our service delivery team also carry out planned maintenance works on our infrastructure, such as flushing the mains, or maintenance to pump stations or treatment plants.

If any work will cause customers to be impacted, we will advise the affected properties in writing and / or by public notice of what is to be done and when normal service will resume.

Our service delivery team is also responsible for inspecting and operating our infrastructure, including keeping the pump stations and treatment plants working.

Customer Charter goals:

Unplanned interruptions:

We have clear timelines for responding to network faults impacting customers. These include a burst or leak that causes, or has the potential to impact customers, water quality, flow rate, property or environment.

Our Customer Charter makes the following commitments based on the level of the fault:

- Major - substantial damage or harm: one hour to attend (90 per cent of the time)
- Medium - minor damage or harm: three hours to attend (90 per cent of the time)
- Minor - no discernible impact: three days to attend (90 per cent of the time).

We aim to attend an unplanned interruption to a sewerage service within a maximum of 60 minutes (90 per cent of the time).

Planned interruptions

We aim to restore planned water supply interruptions within five hours (90 per cent of the time).

In the event that a planned or unplanned interruption extends beyond eight hours we will, where appropriate, provide alternative drinking water or sanitary facilities.

Where a customer has a special need based on medical advice that requires water (such as dialysis patients) we will provide at least four business days' notice before a planned interruption. The service requirements of special needs customers take priority over the needs of other customers.

Capital Delivery Office

Overview

TasWater has developed a 10-year capital expenditure program to address the state's water and sewerage compliance challenges. Our plan has been fully modelled and provides a sustainable approach to improving infrastructure and balancing the needs of current and future generations.

In 2018 TasWater recognised the need to develop a new project delivery model for timely and efficient delivery of the $1.8B accelerated capital program agreed with the State Government as part of the MOU negotiations.

A study was undertaken by an independent organisation which identified and ranked eight possible delivery models. Of these options, a contracted alliance model was selected as the preferred model due its ability to provide immediate access to the capability, tools and systems necessary to deliver one of Australia's most ambitious and complex water and sewerage upgrade programs. Not accepting the need to change would mean accepting the risk of delays and overruns to projects, or significantly reducing the size of the capital program. The inevitable slowdown in the realisation of customer benefits and improved regulatory compliance that would follow meant this was not an option.

A competitive national tender process, overseen with appropriate levels of probity, was undertaken to deliver the proposed Capital Works Program for TasWater. An Alliance was formed between TasWater, CPB Contractors Limited and UGL Limited with additional support from WSP Australia Pty Limited to form the TasWater Capital Delivery Office (TasWater CDO) which commenced operations in July 2019.

The core business of the TasWater CDO is to ensure cost-effective and timely delivery of quality capital works projects for TasWater and manage the Capital Works Program from inception to completion including the planning, design, procurement and delivery phases. It appoints designers and consultants to assist with the pre-construction design stages, and construction contractors and specialist equipment suppliers may undertake the detailed design.

The TasWater CDO does not carry out the actual construction work at project sites so contractors are appointed to do this. A regularly updated Project Pipeline is available online with indicative timeframes covering the years 2020-2022 inclusive.

Tendering

The TasWater CDO applies great rigour defining the scope of projects, competitively tendering and ensuring work is delivered in the most effective and efficient way.

Consultants, contractors and suppliers are required to register interest for consideration to participate in tender processes via the TasWater CDO supplier database.

Prior to releasing a tender to market the CDO Procurement Officer, in conjunction with the CDO Engineering Team, selects a minimum of three companies, and generally not more than ten from the register to be invited to submit tenders. The selection is based on information supplied as part of the prequalification process by the various contractors and covers:

- The scope of work
- Geographic location
- Scale of the project
- Technical capability
- Current capacity
- Past performance.

A Tender Evaluation Panel is selected and all members must confirm they do not have any real or perceived Conflict of Interest. During the tender process, responses to clarifications are provided to all tenderers at the same time to ensure no party gains advantage in the tendering process.

The Tender Evaluation Panel may request additional clarification on submissions from some or all tenderers and may choose to conduct interviews with some or all of the tenderers.

Following completion of the tender evaluation process the Tender Evaluation Panel will select a preferred tenderer and progress with award of a contract.

All unsuccessful tenderers are provided an opportunity for formal feedback on their submission.

Current status

- To 31 July 2020, since commencing operations on 1 July 2019, the Taswater CDO has awarded 105 contracts to Tasmanian companies, and 2 to non-Tasmanian companies.
- These had a total value of $41.61 million and $0.80 million respectively
- The TasWater CDO also took over management of a further $66.45 million worth of contracts awarded by TasWater in previous years comprising both major and minor projects
- As at 31 August 2020 the TasWater CDO had 52 projects underway at various project stages of delivery across Tasmania
- 115 different Tasmanian suppliers were engaged in FY2020
- The TasWater CDO forecast spend in FY2021 is over $170 million
- This investment is anticipated to rise to greater than $200 million the following financial year.

It should be noted that it is unrealistic to expect that TasWater could award 100 per cent of projects to Tasmanian companies as there are specialist skills required in some projects that are not available through Tasmanian companies and where it would not be feasible or logical for Tasmanian companies to acquire the necessary skills and knowledge because of the scarcity of this type of work in Tasmania.

The nature of the work to be undertaken by TasWater CDO is such that it is one of the most complex in the country for water and sewerage businesses. As with any other significant change program conducted in a relatively short period of time, there have been a number of teething problems which are being addressed as part of the change process. Some of the initial challenges experienced include:

- The introduction to our supply chain of terms and conditions commonly used elsewhere, which are unfamiliar to some local suppliers and contractors. Having received a range of feedback from the market, the TasWater CDO is considering the need to amend some clauses to ensure the risk apportionment is appropriately balanced
- The time required to develop a master plan of the full suite of TasWater projects and program, with a significant increase in future investment in our assets
- The integration of TasWater and its alliance partner given the different backgrounds, experience and history, including the time require to set up the alliance and its associated facilities and working structures
- The extent of communication required with the market
- The need to set up panels of work for consultancy services and contractors to ensure consistency, equity, flexibility and efficiency
- The impact of COVID- 19 on our ability to resource our program.

Refer to Appendix 2, Figure 11 for historical detail of TasWater's capital expenditure.

COVID-19 impacts

COVID-19 caused isolated delays in the delivery of projects in the north-west, resulting from the localised cluster there.

Access restrictions to Flinders Island resulted in a temporary halt on the upgrade to Henderson Dam.

There was also a short delay at the Longford Sewage Treatment Plant, which is now back on schedule.

Key documents and links – delivery of services

TasWater website links: Trade Waste: https://www.taswater.com.au/Customers/Trade-Waste/and-your-business Customer protection: https://www.taswater.com.au/customers/customer-protection/Customer-Protection Water service outages: https://www.taswater.com.au/News/service-interruptions-alerts Water meters: https://www.taswater.com.au/Customers/Residential/Non-Residential/Water-Meters Development services: https://www.taswater.com.au/Development/Quick-Guides/Quick-Guides Capital Delivery Office: https://www.taswater.com.au/yoursay/taswater-capital-delivery-office/taswater-capital-delivery-office
TasWater Price and Services Plan 3 https://www.taswater.com.au/ArticleDocuments/511/Price%20and%20Service%20Plan%203%20approved%20by%20TER.pdf.aspx
2018-21 TasWater Price and Service Plan – Customer Contract The Customer Contract provides the terms under which we will provide, where available, services to our customers. https://www.taswater.com.au/ArticleDocuments/319/Appendix%205%20%20Final%20PSP3%20Customer%20Contract.pdf.aspx
TasWater Customer Charter https://www.taswater.com.au/ArticleDocuments/319/PSP3%20TasWater%20Customer%20Charter%20%20July%202018.pdf.aspx
Customer Service Code The Water and Sewerage Industry (Customer Service Standards) Regulations 2019 specify matters that must, or may, be included in the Customer Service Code. https://www.economicregulator.tas.gov.au/Documents/Water%20and%20Sewerage%20Customer%20Service%20Code%20%28Version%206%29%20-%2025%20November%202019.PDF

7. The effectiveness of business operations since the State Government became a shareholder in early 2019

The Tasmanian Government is currently a 2 per cent shareholder in TasWater, rising to 10 per cent as it provides equity contributions totalling $200 million over 10 years. This contribution assists in our continued endeavours to deliver the $1.8 billion infrastructure investment program between FY2017 and FY2026.

Tasmanians also benefit from minority government ownership by way of capped price increases until July 2025, accelerated infrastructure upgrades and a joint focus on major projects. This cooperative approach to progressing major investment projects of special economic or environmental importance to Tasmania has seen progress made on the Tamar Estuary River Health Action Plan.

The Tamar scheme has seen a commitment of around $130M of upgrades to sewage treatment systems, with $85M in Federal and State Government funding, TasWater contributing $33.2M and the City of Launceston investing a further $11 million into this initiative.

More generally, the day-to-day business operations are not materially affected with the Tasmanian Government now an owner. TasWater has an independent, skills-based Board appointed by a sub-committee of the Owners Representative Group. The Board comprises seven non-executive directors, which provides and monitors our strategic direction, governance, management and performance.

The improving standard of those operations has been identified by the Economic Regulator in the State of the Tasmanian Water and Sewerage Industry 2018-19 Report. The Regulator found advances in service delivery, the quality of drinking water supply and the performance of TasWater's sewage treatment plants.

The Regulator's comments included:

> *"…investments have delivered improved public health outcomes and environmental compliance."*
>
> *"…a large, dispersed network, combined with ageing infrastructure and growing demands on the system, are continuing to impact the reliability and performance of the water and sewerage network."*
>
> *"Overall, the quality of drinking water supply in Tasmania was high in 2018-19 and there has been a sizeable drop in the number of complaints.*
>
> *"…the rate of service interruptions and water main breaks were relatively high in 2018-19 due, in part, to the age and condition of much of the infrastructure."*
>
> *"Overall, the performance of TasWater's sewage treatment plants has improved."*
>
> *"Tasmanian bills for water and sewerage services are typically lower than those on the mainland."*

Key documents and links - shareholders

Shareholders' Letter of Expectations https://www.taswater.com.au/ArticleDocuments/360/TASPOL51%20TasWater%20Shareholders%20Letter%20of%20Expectations%2027%20September%202018%20V%201.pdf.aspx
TasWater Dividend Policy The Water and Sewerage Corporation Act 2012 (WSCA) requires that the Board determine a Dividend Policy. The Constitution and Shareholders' Letter of Expectations reiterate this requirement and stipulate that the Dividend Policy must be determined in consultation with the Owners' Representatives. https://www.taswater.com.au/ArticleDocuments/475/TASPOL17%20-%20Dividend%20Policy%20-%20v5.0.PDF.aspx
TasWater Owners' Representatives Group Charter TASCHT01 The duties, functions, roles and responsibilities of the Owners' Representatives Group (ORG) are primarily determined by TasWater's Constitution and this Charter https://www.taswater.com.au/ArticleDocuments/361/TASCHT01%20Owners%20Representative%20Group%20Charter%20V3%20May%202018.pdf.aspx
TasWater Owners' Representatives Code of Conduct https://www.taswater.com.au/ArticleDocuments/473/Owners%20Representative%20Code%20of%20Conduct%20V3%20May%202018.pdf.aspx

8. The impact of COVID-19 on business operations

In keeping with the global experience, the impact of COVID-19 has meant significant change in the way we conduct our operations. That said, aside from the previously noted financial impact there has been no material, adverse impact on our business and we continue to deliver water and sewerage services to our customers across the state.

Our field staff who manage our core assets and services have continued to work in the same way they did prior to COVID-19, while site-based staff successfully transitioned to working from home. Our productivity across the business remains strong and we continue to achieve the majority of our key business performance measures. Today, the phased return to site-based work is progressing well.

In common with many other organisations, there have been significant business improvements delivered or accelerated as part of our response to the pandemic:

- Our leaders have become more connected with their teams and more supportive, while business processes have been improved
- People have been empowered to make better decisions and to be more agile in decision making
- There has been a strengthening of unity and commitment which has helped boost morale, encouraged collaboration, sparked innovation and delivered great outcomes in a challenging environment.

While ensuring safety and wellbeing of staff and contractors is a key priority we have worked hard to make sure customers continue to receive their water and sewerage services.

With front counters closed, we undertook a decentralisation of the Contact Service Centre (CSC) with customer service officers working from home and supporting our customers 24*7. Pleasingly the contact centre response times were above our target during this time.

TasWater is helping customers by:

- Expanding the Customer Support Program
- Giving eligible small businesses a 100 per cent rebate on bills issued between 1 April and 30 June 2020
- Freezing our prices for 12 months from 1 July 2020 for residential and business customers
- Giving eligible businesses extra time to pay.

TasWater committed to participating in the Water Research Australia's COLOSSOS [6]project, that aims to understand the impacts of COVID-19 and the associated virus (SARS-CoV-2) on our wastewater systems. This is a multi-faceted project and TasWater has committed to collect samples for six months from six different sewage treatment plants, to be stored for future analysis.

We have identified the core risk categories within our supply chain and have increased our holdings of critical spares and sought alternative suppliers as required. TasWater is a member of the Water Services Association of Australia's bulk chemicals group which is reviewing the mutual aid guidelines to ensure equitable distribution of chemicals if supply chains are impacted to the extent where demand for product outstrips supply.

A Business Recovery Team is developing policies and implementing projects which will capitalise on the positive lessons learnt so far, including embracing new and better ways of doing business, increasing efficiency and delivering better outcomes for customers.

[6] Collaboration on Sewage Surveillance of SARS-CoV-2

9. Any other matters incidental thereto

Drinking water quality

During 2019-20, we captured, stored, treated and transported approximately 59 billion litres of drinking water to more than 212,000 homes and businesses across Tasmania.

For the second year in a row, we achieved full microbiological compliance with the Tasmanian Drinking Water Quality Guidelines, meaning that all Tasmanian customers had access to safe drinking water as at 30 June 2020 (see Appendix 2, Figure 3).

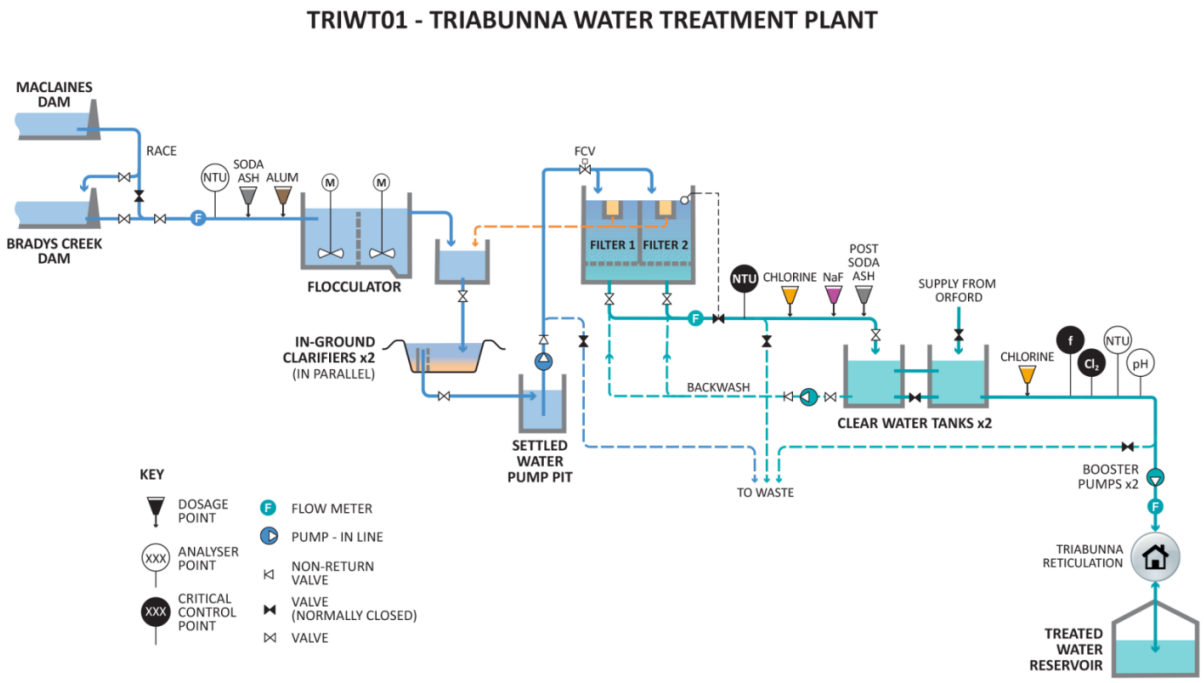
As part of our ongoing efforts to improve drinking water quality across the State, we delivered the following key projects during the financial year:

- Completion of a new water treatment plant (WTP) at Grassy to supply the townships of Grassy and Currie on King Island
- Construction of a new pipeline to supply the Somerset and Wynyard areas from the Pet River system (Burnie) and enable the Cam River WTP to be decommissioned
- Increased treatment of drinking water at the Adventure Bay WTP
- Installation of granular-activated carbon filters at the Coles Bay WTP to help with the removal of organic carbon and taste and odour compounds
- Commencement of upgrade works at our largest WTP, Bryn Estyn, with a capital cost of around $200 million.

TasWater sources most of its water from rivers, lakes and dams, which is then treated before supply to our customers.

Treatment sees the removal of solids, chemicals and pathogens, with the last stage being chlorination. Fluoridated water is then pumped to reservoirs where it is gravity fed to homes and businesses.

While the specifics change from site to site, the illustration below is indicative of the key stages of the treatment process.



Maintaining a secure water supply

Since early 2017, the majority of Tasmania has continued to experience below average rainfall, with some parts of the state experiencing the lowest rainfall on record.

This trend continued throughout 2019, during which time Tasmania also experienced above-average temperatures. Some regions, such as Hobart and the East Coast, experienced their highest average temperatures on record during the year.

Coupled with increased tourism and high occupancy rates over the peak demand period, these conditions left a number of our supplies stressed leading into the summer of 2019-20 and required water restrictions to be imposed across the state throughout the period from December 2019 to May 2020.

To support and inform our customers during this period, we delivered a state-wide water conservation campaign to raise awareness about the value of water and the need to conserve water.

This included advertising on television, and in social media and newspapers as well as ongoing engagement with our owners and customers.

The Tasmanian community embraced the need to conserve water during this period and we observed a reduction in non-essential water usage across the state, particularly in those areas where Stage 2 and 3 restrictions were in place.

To ensure that we can continue to manage our water resource into the future, a number of initiatives are currently underway including development of a Water Surety Strategy and improvements to our monitoring and modelling capability.

Customer service outcomes

During 2019-20, our Customer Service team continued to deliver strong customer outcomes despite the challenges presented by COVID-19.

For the full financial year, we responded to 168,291 customer calls, an increase of 14,425 compared to the prior year. As a result of this increase, for which there was no identifiable reason, we saw a slight reduction in the number of calls answered within 30 seconds from 87 per cent in 2018-19 to 83 per cent in 2019-20.

An ongoing focus on resolving customer queries at the first point of interaction resulting in First Point Resolution for 92 per cent of customer calls, exceeding the 2019-20 target of 90 per cent (see Appendix 2, Figure 6). Overall customer satisfaction with our Customer Service team was 97 per cent, exceeding our target of 90 per cent (see Appendix 2, Figure 8).

The post-call surveys with our customers that were implemented in late 2018 have proven to be a successful feedback tool, with over 21,000 of our customers choosing to participate in these surveys over the course of the financial year.

Complaints management

A more proactive approach in dealing with customer concerns at the first point of contact resulted in a major reduction in water and sewerage complaints over the last 12 months.

The total number of complaints for 2019-20 was 1,138, a reduction of 57 per cent from the 2,649 complaints received in the previous financial year. This included a 73 per cent reduction in our major complaint category of water quality complaints. The number of reportable complaints to the Tasmanian Ombudsman reduced by 70 per cent.

Of the complaints we did receive, 98 per cent were processed within 10 business days, compared to our target of 90 per cent (see Appendix 2, Figure 10).

To ensure that we continue to perform strongly in this area, we have developed a new complaints management system that will be implemented in 2020-21. This system will deliver further improvements in our recording, managing and reporting of complaints and deliver a better experience for our customers.

As testament to our ongoing improvements in customer service outcomes, we received recognition in the Water Services Association Australia national market research as one of the big improvers in the categories of Value for Money, Community Reputation, Likely to Recommend and Overall Satisfaction.

Customer billing

We aim to issue customer accounts at the same time each quarter and more than 99 per cent of our bills were issued on time in the last 12 months.

As a result of restrictions associated with COVID 19, we paused reading customer meters between 19 March, and 25 May 2020. As a result, approximately 24 per cent of our meter reads for the financial year were estimated reads and we provided our customers with a commitment to review these bills if they were of concern.

As part of our ongoing efforts to reduce costs and increase convenience of payment, we have continued to encourage customers to adopt alternative payment channels.

During 2019-20, almost 22 per cent of our customers' bills were issued via either email or BPAY, a slight increase from 2018-19. As at 30 June 2020, 8,549 customers were settling their bill via direct debit arrangements.

Customer communications

Consistent with our customer promises, our communication efforts have continued to focus on making it easier for customers to interact with us and ensuring our communications are timely, relevant and actionable.

Over the last twelve months, we published regular community updates in metropolitan daily papers, as well as local stories tailored for regional media outlets. We also increased our use of social media channels to make it easier for our customers to get the information they need when they want, especially when there may be planned or unplanned interruptions to their services.

To support our customers, we increased our customer communications during the second half of the financial year in response to both our water restrictions period and COVID-19.

Dam safety

We own more than 300 dams that are used for water supply, sewage treatment and effluent reuse.

To ensure our dams meet modern engineering standards and address legacy issues associated with their age, we remain focused on delivering a priority-improvement program that has been approved by the Dam Safety Regulator.

During 2019-20, we reduced the number of dams plotting above the Australian National Committee on Large Dams (ANCOLD) limit of tolerability (LoT) for societal risk from seven to four. At the time of TasWater's establishment in 2013, there were 15 dams that exceeded the LoT.

Major dam safety management initiatives undertaken during 2019-20 include:

- Improvements to the flood warning systems at the Isandula and Blackmans No.2 Dams, which enabled both dams to be reduced below the LoT
- A maintenance program at the Upper Reservoir Dam to enhance its future safe performance, improve stormwater management and upgrade water outlet facilities

- Completion of the Swansea Dam upgrade, ensuring a reliable water source for the Swansea community and visitors to the area
- Safety works at the Waratah Dam to clear out and widen the spillway to ensure that inflows into the dam can be safely managed
- Upgrades at the Mikany Dam to guarantee water supply into the future and improve its flood capacity
- Completion of design and investigation works for the Henderson Dam upgrade on Flinders Island, which will provide Whitemark residents with improved drinking water security
- Implementation of measures to bring the Grey Mountain Dams 1 and 2 in the Huon Valley to an acceptable level of risk. Remediation and other finalisation works are planned for these sites over the next 18 months.

We have also continued to improve our dam safety governance through improvements and updates to our Dam Safety Management Strategy, Dam Safety Improvement Program and Dam Safety Management Plan.

Health and safety initiatives

Our goal is to achieve Zero Harm to our people, contractors and the community we serve by ensuring that we undertake our work safely and manage our contractors to the same standards of safety that we expect of our own employees.

Consistent with this focus, we joined the global campaign, Vision Zero, in December 2018 as a Zero Harm company.

During 2019-20, we continued our journey towards Zero Harm by formulating a new Health and Safety Improvement Plan 2019-24 that is aimed at delivering high quality and maintainable health and safety outcomes.

We made good progress in delivering our health and safety initiatives over the last 12 months. Highlights include:

- Implementing the Work Health and Safety Accountabilities Manual to increase ownership and involvement in health and safety and further integrate our values into the way we work
- Completing a Fatigue Management Risk Assessment to inform the development of a program aimed at reducing the risk of illness and injury associated with acute and chronic sleep deprivation
- Ongoing review and improvements to the management of hazardous manual handling tasks which were identified in the 2018 Manual Handling Risk Assessment
- Commencing the implementation of 256 corrective actions that will result in an immediate reduction of risk from observed unsafe conditions and practices
- Developing a Safety Risk Communication process aimed at increasing business engagement on safety risks and improving decision making in recognising and responding to these risks
- Continued enhancement of our knowledge and understanding in the application of the Fatal Risk Control Standards across our business.

Headworks charges

The development services team assists with the approval of new and changed connections to our water or sewer networks, assists with enquiries regarding large scale developments and generally supports new development across the state.

At a high level the team assesses and approves proposed developments, ensures that water and sewer components of development works are constructed in compliance with approved plans and conditions, and ensures collection and updating of asset information related to the development. They assess referred planning applications and apply appropriate conditions, and process building and plumbing related applications for Certificates for Certifiable work

This team also works with developers on their obligations when connecting to our infrastructure and the associated charges. Headworks charges are one component of these and have not been collected by TasWater since 2015 when the decision was made to make access to available system capacity free to new development.

Where there is no available system capacity, or capacity constraints within systems, developers have the choice of bringing forward TasWater's scheduled capital works (if any), waiting for TasWater to undertake the capital works or undertaking the capital works themselves.

Developers are responsible for the installations and costs associated with water and sewerage assets that are then transferred to TasWater. This includes reticulation assets within the development, external extensions to connect to TasWater's network, and external expansions where capacity is insufficient to support the development.

Governance

Legislative authority

The Tasmanian Water and Sewerage Corporation Pty Ltd, trading as TasWater, was established under the Water and Sewerage Corporation Act 2012 (WSCA).

It was incorporated on 5 February 2013 as a proprietary limited company under the Corporations Act 2001, owned by the 29 Tasmanian councils. Its constitution was adopted on incorporation and ratified by the owners at a general meeting on 16 May 2013.

At a special general meeting on 27 September 2018 the council owners approved entry by TasWater into a Share Subscription and Implementation Agreement, which together with the passage of the Water and Sewerage Legislation (Corporate Governance and Pricing) Amendment Act 2018 facilitated the State Government becoming a shareholder in TasWater in early 2019.

Consequential amendments to TasWater's Constitution and Shareholders' Letter of Expectations were also approved, with the State Government formally become a shareholder in January 2019.

The WSCA prescribes our objectives as:

- To efficiently provide water and sewerage functions in Tasmania
- To encourage water conservation, the demand management of water and the re-use of water on an economic and commercial basis
- To be a successful business and, to this end:
    - operate our activities in accordance with good commercial practice
    - to deliver sustainable returns to our members
    - to deliver water and sewerage services to customers in the most cost-efficient manner.

Principal activities

Our principal activities during 2019-20 were:

- Providing water and sewerage services for residential and commercial customers throughout Tasmania
- Undertaking maintenance, upgrading and development works on water and sewerage assets and preparing strategic development plans for the future.

Role of the Board

The Board of Directors is responsible for the Corporation's overall corporate governance. The Board performs this role by:

- Governing the Corporation in accordance with the requirements of the WSCA, including meeting its objectives under that Act
- Providing entrepreneurial leadership of the Corporation within a framework of prudent and effective controls which enable risks to be assessed and managed
- Setting the Corporation's strategic aims, ensuring the necessary financial and human resources are in place for the Corporation to meets its objectives and reviewing management performance
- Setting and monitoring strategic requirements for effective financial reporting and risk management

- Setting the Corporation's values and standards and ensuring that its obligations to its shareholders and others are understood and met
- Appointing the Chief Executive Officer and monitoring performance
- Ensuring the Corporation complies with its constitution as well as all applicable laws and relevant instruments, including the Shareholders' Letter of Expectations

The Board has determined which matters it will manage exclusively, with the remainder delegated to the CEO and various officers of the Corporation.

Corporate governance framework

Corporate governance is the system by which the activities of the Corporation are controlled and coordinated in order to achieve its desired outcomes.

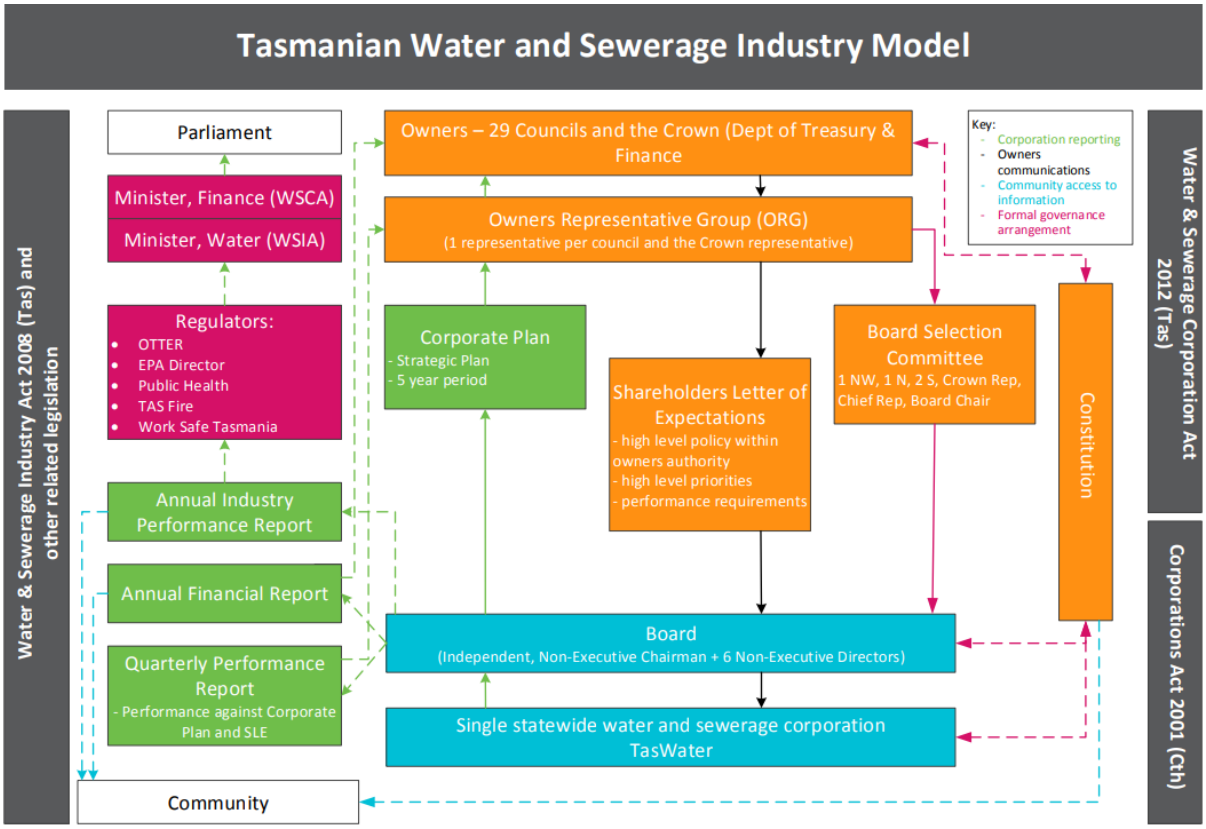
TasWater has voluntarily adopted the ASX's Corporate Governance Principles and Recommendations (ASX Principles) as the basis for its corporate governance framework.

As it is not a publicly-listed company, not all of the ASX Principles are relevant and, in some areas, TasWater's governing legislation, context and structure preclude it from complying with those principles.

Where this occurs, TasWater has sought to recognise the intent of the ASX Principles in its policies and practices, while remaining compliant with its obligations under other applicable instruments.

The WSCA mandates other specific governance features, including the composition of the Board and rights and responsibilities of our owner councils, and formally displaces specific sections of the Corporations Act 2001.

In most other ways, the Board's powers, obligations, rights and responsibilities are similar to those of other privately-owned, large proprietary limited companies.



Appendices

Appendix 1: Contaminants and stabilisation

Contaminants can be metals, organic compounds (including pharmaceuticals and pesticides) and physical contaminants (such as plastics) occurring in biosolids and soils.

Typically we screen for a suite of metals and other potential contaminants based on a risk assessment of the catchment.

The Contaminant Grade is determined based on the concentration of the contaminants against guideline values. TasWater biosolids are typically grade B. As an example, Prince of Wales Bay is grade C due to ongoing zinc contamination.

Stabilisation is the processing of biosolids to address health and nuisance odour risks. Stabilisation can be achieved through digestion process, addition of lime or for lagoon systems the length of time in the lagoon.

The Stabilisation Grade describes the quality of biosolids based on its microbiological characteristics, vector attraction and potential to generate offensive odours. Approx. half of our biosolid sites are grade B.

As municipal wastewater comprises a range of domestic, commercial and industrial sources, various pathogenic organisms, and organic and inorganic contaminants may be found in biosolids.

These constituents, if not appropriately monitored and managed, may pose a potential risk to humans, animals, plants, soil health and/or the environment.

Appropriate use of biosolids is also important for economic reasons such as helping to protect the reputation of Tasmania's agricultural produce.

Tasmania's guidelines take a conservative approach to ensure that the risks of environmental or public health problems associated with biosolids reuse are minimal.

Strict contaminant and stabilisation grading minimises these risks and engender public confidence in public health and environmental protection systems.

The *Tasmanian Biosolids Reuse Guidelines June 2020*
https://epa.tas.gov.au/Documents/Tasmanian%20Biosolids%20Reuse%20Guidelines%202020.pdf

Appendix 2: Performance graphs

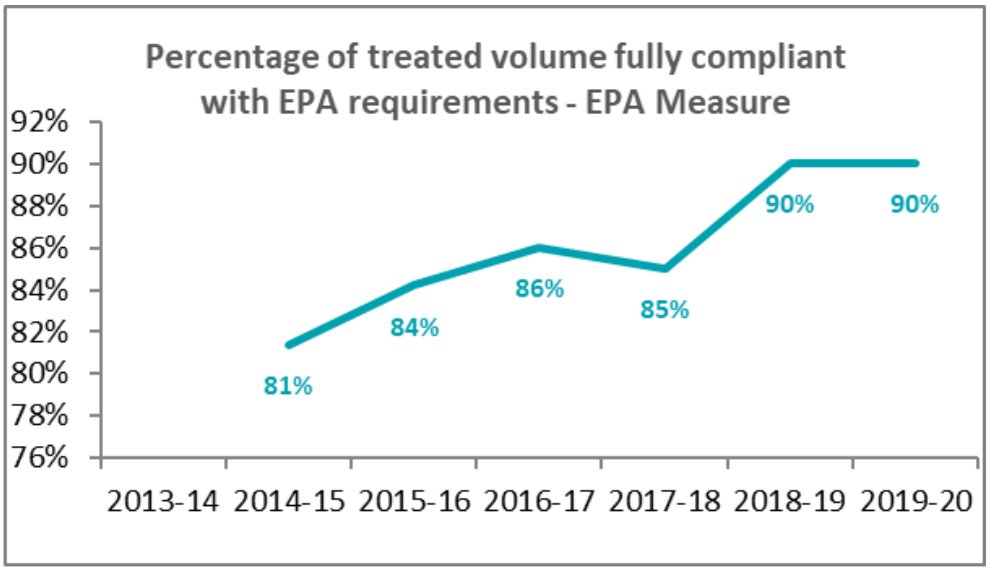


Figure 1

The percentage of treated wastewater volume that is fully compliant with requirements specified by the Environmental Protection Authority.

We report to the EPA on the performance of wastewater each year through the Annual Environmental Report.

The ongoing strong performance in this area reflects a continued focus on improving effluent compliance through our Sewerage System Optimisation Program, including through process enhancements.

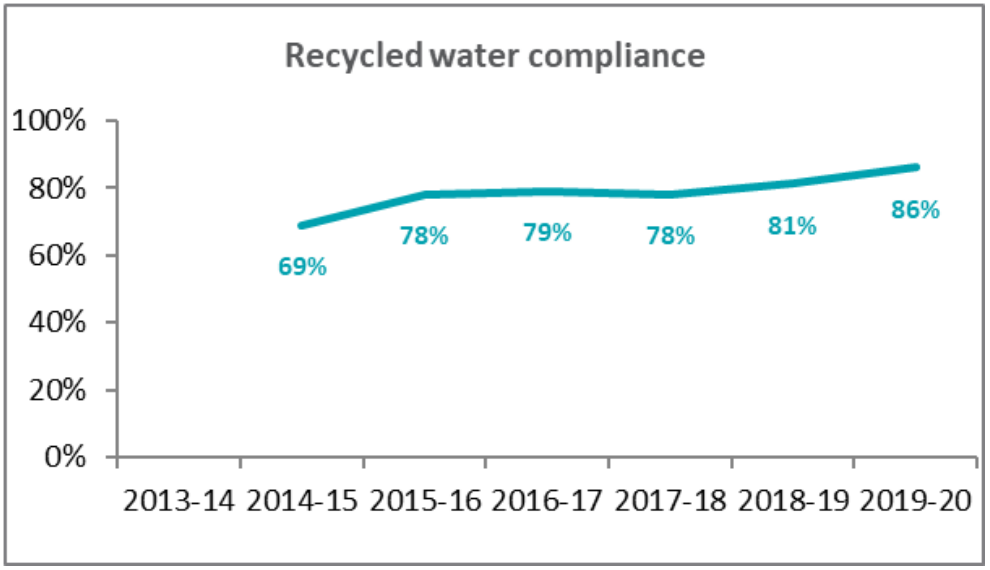


Figure 2

The percentage of our recycled water from treatment plants connected to reuse schemes that is within Grade B recycled water limits. The increase in performance mirrors a similar trend for discharge to water compliance as a result of improved operational performance resulting from increased control of our treatment processes through optimisation and key upgrades.

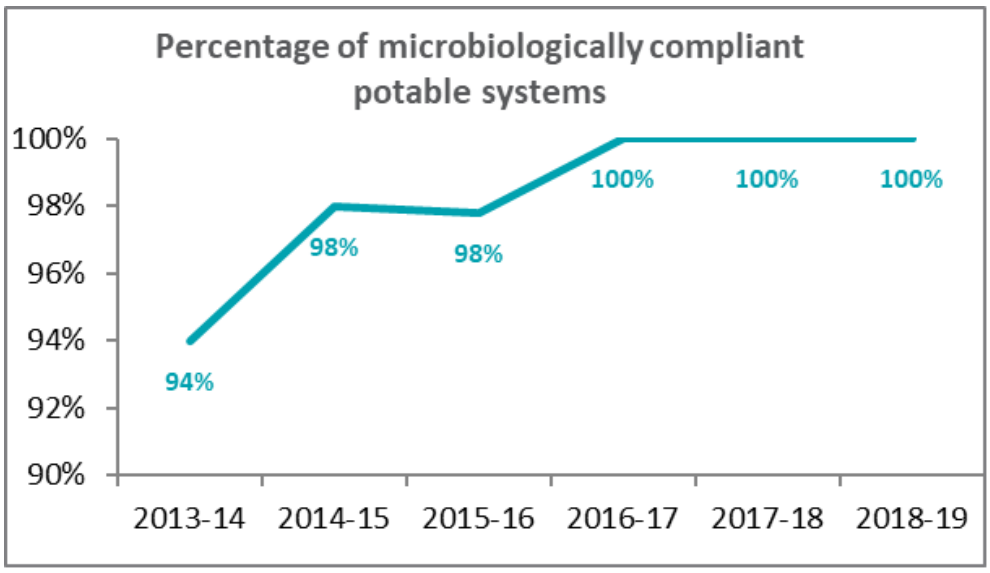


Figure 3

The percentage of our potable water supply systems that are microbiologically compliant as per the Australian Drinking Water Guidelines.

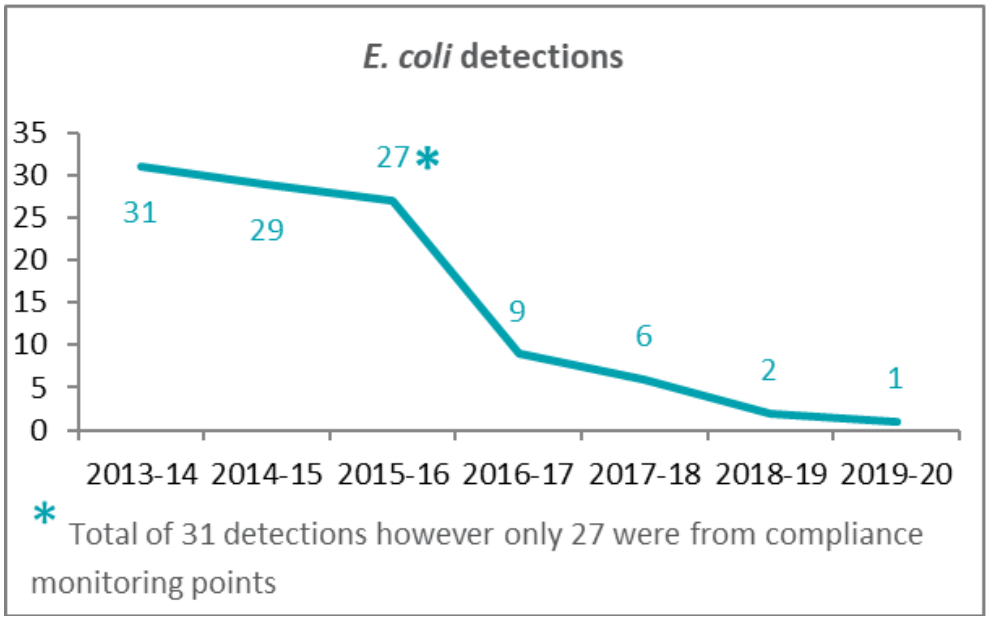


Figure 4

There has been a significant ongoing reduction in E.Coli detections, reflecting improved training, asset upgrades, an increased focus on reservoir cleaning and maintaining chlorine residual levels throughout the networks.

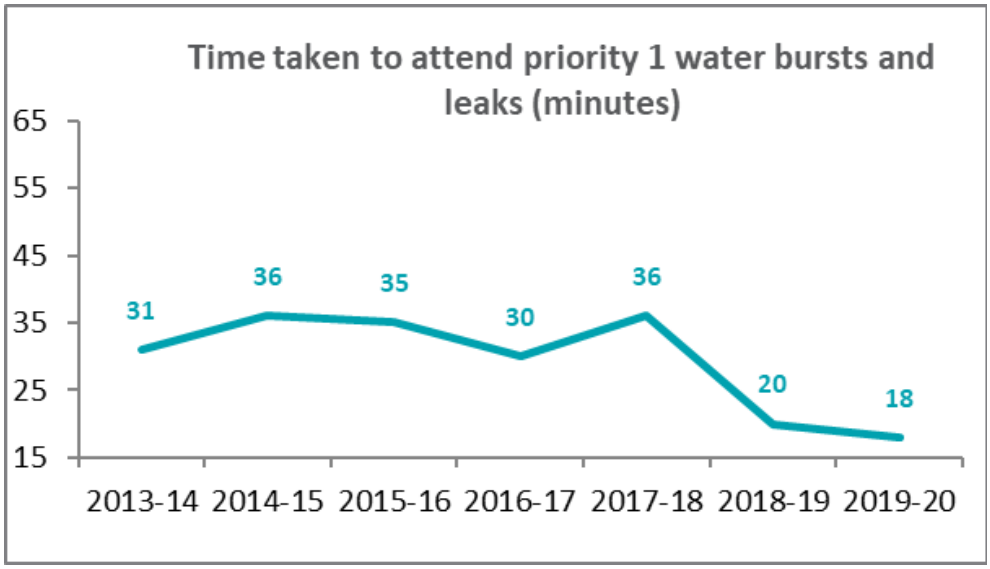


Figure 5

The average response time to the most serious bursts and leaks "that causes, or has the potential to case, substantial damage or harm to customers, water quality, flow rate, property or environment".

An ongoing focus on improving processes and engagement within the scheduling and dispatch team has driven continued strong performance in responding to priority water bursts and leaks, despite the challenges presented by COVID-19.

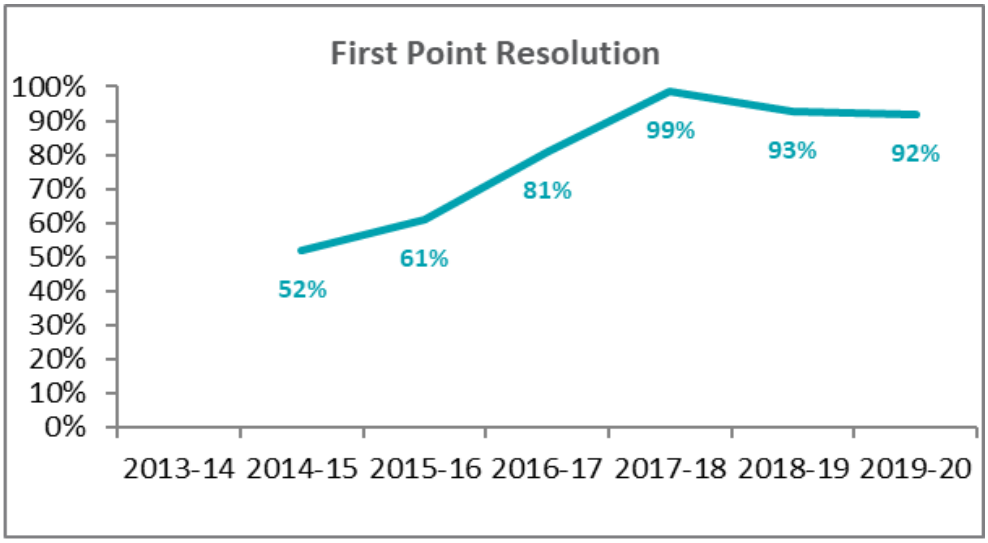


Figure 6

The percentage of customer calls that are resolved at the first point of contact.

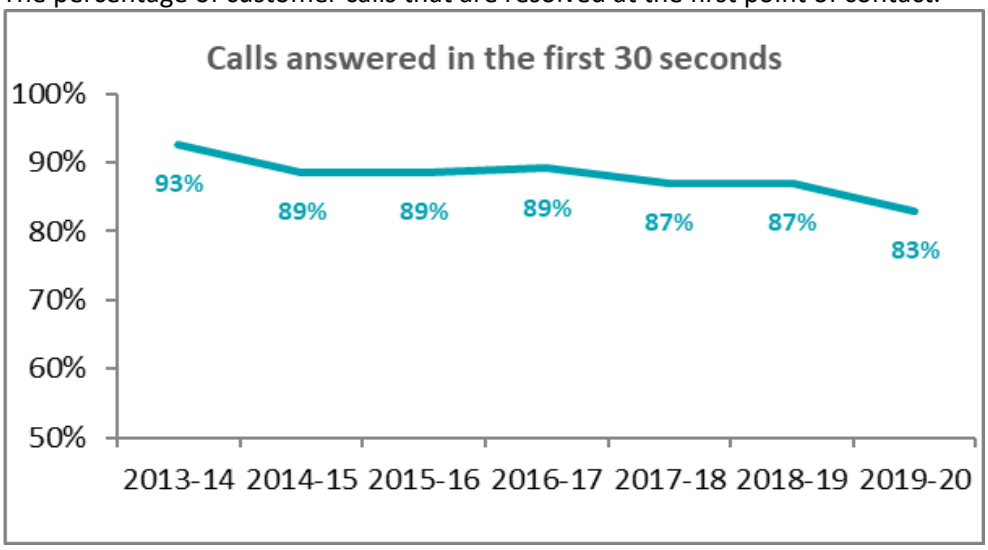


Figure 7

This KPI measures the percentage of calls that are answered by one of our operators in the first 30 seconds.

Due to a significant increase in call volume during 2019-20, for which there was no clear external driver or observable trend across our call categories, there was a slight reduction in the number of calls answered within 30 seconds from 87 per cent in 2018-19 to 83 per cent this financial year.

Figure 8

Customer satisfaction with the level of service provided by the customer service centre through an optional survey of customers undertaken after their call.

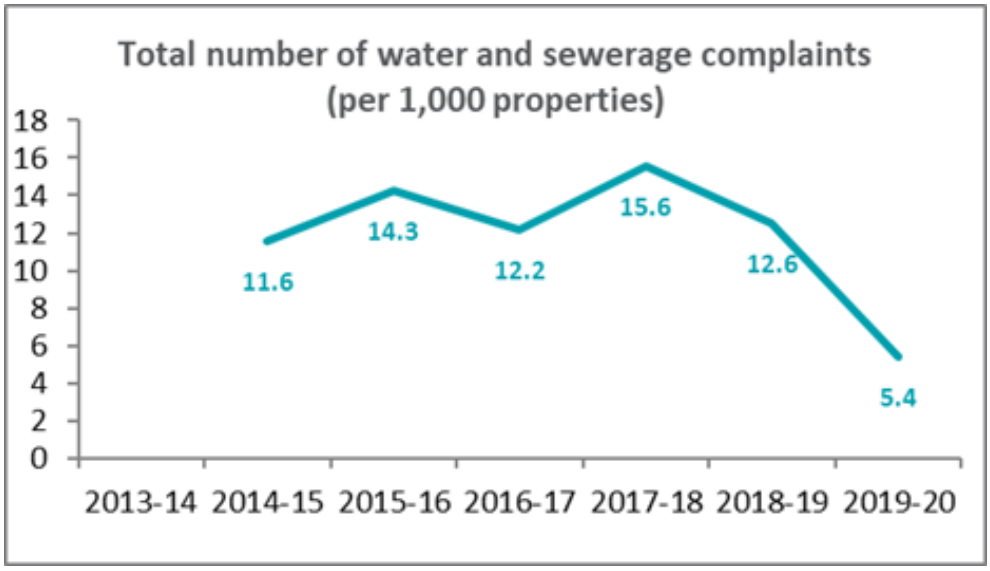


Figure 9

The rate of water and sewerage complaints received per 1,000 connected properties.

A more proactive approach to dealing with customer concerns and enquiries at the first point of contact resulted in a significant reduction in the total number of water and sewerage complaints over the last 12 months. The total number of complaints for FY2020 was 1,138, a reduction of 57 per cent from the 2,648 complaints received in FY2019. The largest complaint category, water quality complaints, reduced by 74 per cent.

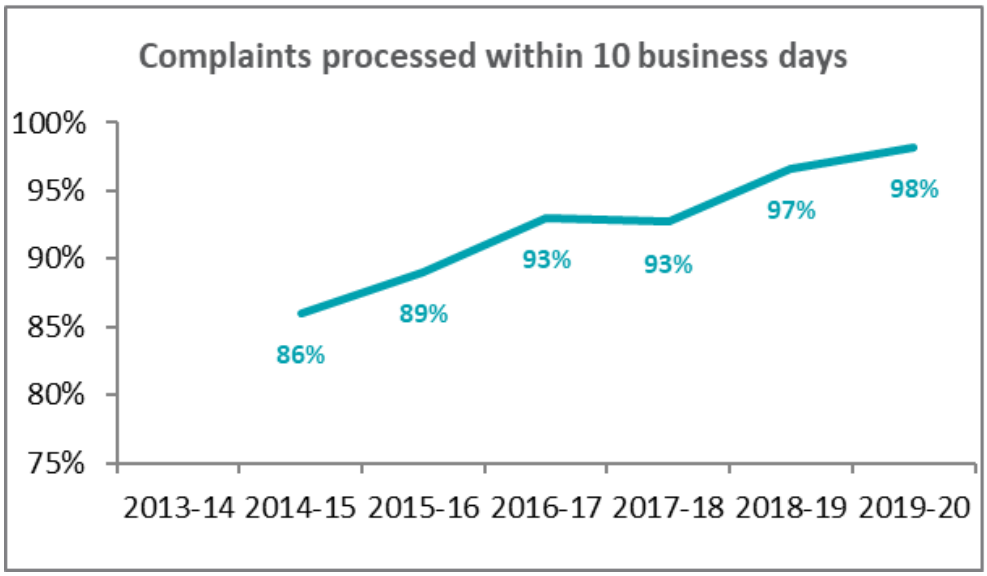


Figure 10

TasWater continues to exceed the target of 90 per cent for this KPI, which measures the percentage of complaints that are processed within 10 business days.

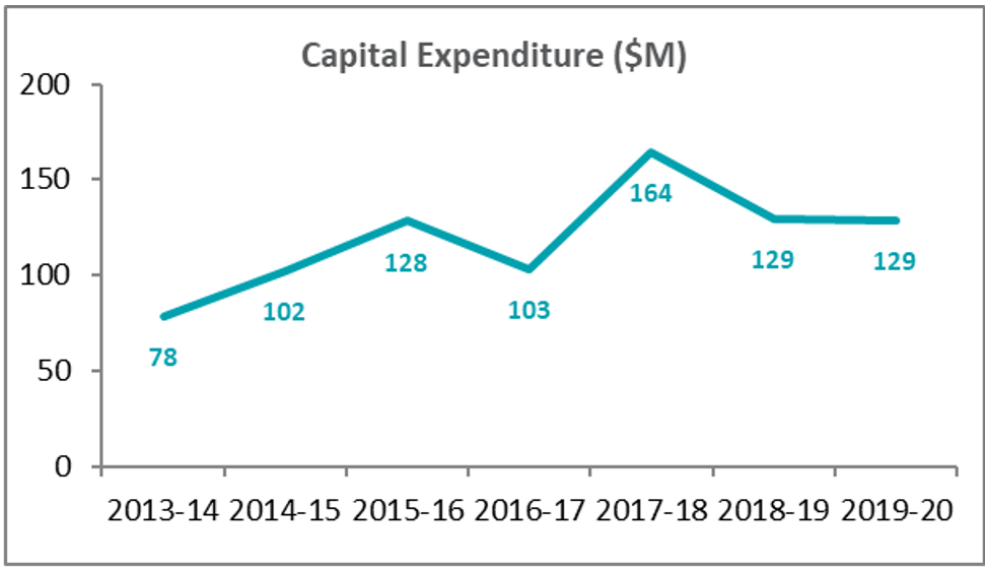


Figure 11

Capital expenditure for the financial years since the establishment of TasWater.

Appendix 3: potential legislative and regulatory changes

Key:

Water and Sewerage Industry Act 2008 : WASA 2008
Water and Sewerage Industry (Customer Service Standards) Regulations 2019 : WSICSS 2019
Water and Sewerage Industry (Pricing and Related Matters) Regulations 2011 : WIPRMR 2011
Water and Sewerage Industry (General) Regulations 2019 : WSIR 2019

Customer Code : CCODE
Customer Contract : CC
Customer Charter : CCH

State Planning Provisions : SPP
Land Use Planning and Approvals Act 1993 : LUPA 1993
Building Regulations 2016 : BR 2016

Issue/topic	Legislation or regulatory instrument to be amended	Key benefits
Enable debts to TasWater to run with property, rather than individuals (present state): Outstanding debts would be discharged on sale of land and not carried by the broader customer base	*WASA 2008*	• Aligns debt recovery process with other water utilities • Improved ability for TasWater to recover costs, preventing cross-subsidisation by wider customer base • Reduces complexities, costs and delays for TasWater in recovering debts • Increased efficiencies for TasWater's Collections team with significant flow on impacts for the broader business • Prevents significant internal complexities and costs where there is a need to secure loans or debts to customers (e.g. through caveats).
Offsetting: • Recovery of undercharged amounts going back further than 12 months where this is offset against a larger overcharged amount going back further than 12 months • Ability to offset amounts between customer accounts held in the same name	CCODE	• Simpler process for debt recovery • Prevents cross-subsidisation by wider customer base • Improved efficiency and reduced internal costs for TasWater.
Payment of Sundry Invoices: Ability to 'stop credit' where customers do not pay sundry invoices	CCODE	• Reduction in customer debt levels • Improved ability for TasWater to recover costs, preventing cross-subsidisation by wider customer base.
Support a different model of service connections	*WASA 2008* *WSICSS 2019* *WSIPRMR 2011* CCODE CC	• Support transition to competitive market pricing and service delivery for connections • Reduce cross-subsidies.

Issue/topic	Legislation or regulatory instrument to be amended	Key benefits
Ability to read meters less regularly than current standard 3-month billing cycle: Residential customer bills do not typically vary significantly from year to year, with the majority of the total bill amount relating to the fixed charge	*WIPRMR 2011* *WSICSS 2019* CCODE CC CCH	• Improved efficiencies and resource allocation for TasWater • Increased opportunity to lower costs and pass this benefit on to customers.
Remove requirement for water and sewerage officers to be TasWater employees	*WASA 2008*	• Improved efficiency and capabilities for contractors • Improved efficiencies in on-site attendance, reduces over resourcing and double-up – improved efficiencies, productivity and lower costs for TasWater.
Provide for retrospective deemed easements to validate connections in serviced land where configuration of connection would otherwise be classified outside of serviced land	*WASA 2008*	• Greater certainty for current and future landowners • Clarification of TasWater's obligations and responsibilities • Clarifies TasWater's obligations to provide a connection in serviced land.
Amend the circumstances of referring a development application (DA) to TasWater: • Remove TasWater from DA process for standard residential developments (retain involvement in planning scheme amendments); and • Broaden scope for referral of certain applications (e.g. to explicitly include circumstances where a development is proposed in proximity to a sewage treatment plant) • Enable TasWater to enforce conditions of development without reliance on consent authority	*WASA 2008* *WSIR 2019* SPP	• Simpler process, with a significant reduction in costs and delays, including for developers • Reduction in risk of matters not being appropriately referred by planning authority • Increased efficiency in ensuring compliance with conditions of development • Improved cost recovery for TasWater on major project assessments.
Part 5 Agreements: • Allow TasWater to enter Part 5 Agreements without council involvement; or • Enable TasWater to impose conditions on property owners without Part 5 Agreements	*LUPA 1993* *WASA 2008*	• Faster, simpler and cheaper for developers and TasWater • Reduction in time delays • Council removed from process in which they have no interest • Reduction in council costs.

Issue/topic	Legislation or regulatory instrument to be amended	Key benefits
Prescribed timeframes for use or development-related processes – e.g. Reserve Activity Assessments	Various	• Improved certainty and efficiency in project planning and implementation • Improved ability to address capital priorities and deliver compliance and/or service improvements.
Water allocations and licensing: Ensuring the current framework, existing allocations and licences are appropriate for the present and the future	*Water Management Act 1999*	• A holistic review of the current framework, its implementation, allocations and licences would be timely noting: - the significant amount of development that has occurred across the state or is planned for the future - the number of systems which are at or approaching full allocations and - the impacts of climate change upon water surety • The highest priority should continue to be given to ensuring that there are sufficient allocations to enable TasWater to meet the demand for drinking water.
Catchment management: The range of activities undertaken in a catchment can have significant impacts upon raw water quality and hence the level and nature of treatment required to produce reliable and safe drinking water. Responsibility for the management of catchments is currently unclear and/or inconsistent	Various/new	• Clarity of authority and responsibility • An appropriate framework would provide greater certainty for long term planning and investment decisions to appropriately manage risk.
Increase clearance requirements between critical infrastructure and any property development to at least 4 metres	*WASA 2008* *WSIR 2019*	• Increased certainty for developers and reduction in discretionary decisions • Reduction in delays due to discretionary assessment • Reduction in administrative burden for TasWater, resulting in efficiencies and cost savings • Reduced risk of future damage to TasWater infrastructure and associated financial impacts.
Amend regulations to include a development application fee	*WSIPRMR 2011*	• Reduced confusion and delays caused by misunderstandings of the fee • User-pays system • Certainty of costs for developers • Improved cost recovery for TasWater.
Backflow prevention	*WASA 2008* *BR 2016*	• Clarification of TasWater's role and corresponding powers in relation to backflow prevention, particularly in relation to enforcement of property owners' obligations • Greater ability to manage the risks to drinking water as a result of backflow from properties connected to TasWater's network.

Issue/topic	Legislation or regulatory instrument to be amended	Key benefits
Streamlining existing framework: The Act and its subordinate instruments are highly prescriptive and duplicative in its requirements. There is an opportunity to modernise the framework to reflect TasWater's maturation and second-generation policies, contracts and operations through three Price and Service Plans	*WASA 2008* *WSICSS 2019*	• Better reflect maturity of industry • Reduce confusion for customers • Reduce duplication and risk of inconsistency between multiple layers of legislation, regulations, codes, policies, customer contract, customer charter and summary customer charter • Reduce administrative burden on Tasmanian Economic Regulator and TasWater.
Allow for a re-opening of a price determination in certain circumstances: As regulatory pricing periods increase (e.g. from 3 to 4 or more years) this will provide appropriate flexibility to respond to unforeseen circumstances e.g. where there is a material adverse impact as a result of an event outside TasWater's control and which could not have been contemplated at the time the determination was made	*WSIPRMR 2011*	• Increased flexibility and responsiveness to significant changes in the broader environment • May deliver greater equity (e.g. reduction in cross-subsidisation) for customers, or more sustainable cost recovery for TasWater • Minimise compliance costs and delays.
Legislative obligation for OTTER to consult with technical regulators in making its determinations	*WASA 2008*	• The TER's Price and Service Plan Guidelines require that we provide evidence of consultation, and TER and OTTER have undertaken their own consultation process • Improved collaboration, clarity and consistency in understanding between regulators • Reduction in delays or risk of conflicts.
Ensure consistency between pricing matters and pricing principles in legislation (Including removal of principles inconsistent with uniform tariffs)	*WASA 2008* *WSIPRMR 2011*	• Ensures fair and reasonable costs for customers • Increased clarity and efficiency in resource use. •
Broadening of pass through mechanism	*WSIPRMR 2011*	• Allows Regulator to vary prices in reaction to certain events, thereby reducing costs and delays • Improves Regulator and price responsiveness to certain events • Charging of cost reflective prices to customers • Better cost allocation • Prevention of cross-subsidisation.
Legislative obligation for the Economic Regulator to undertake a "financeability" test of its pricing determination	*WASA 2008*	• Ability for TasWater to recover costs of providing services and reduction in cross-subsidisation by customer base • Improved consideration of the TasWater's long term plans and associated outcomes.

Issue/topic	Legislation or regulatory instrument to be amended	Key benefits
Minimum time for stakeholders to respond to draft materials (determinations and guidelines)	*WSIPRMR 2011*	• Improved efficiency and reduction in delays.
Appeal Body constituted from a panel of nominated experts as required * TasWater does not intend to pursue this change at the present time but may revisit at a future date.	*WASA 2008*	• Opportunity to utilise experts on economic regulatory issues • Ensuring regulatory interventions are proportionate and cost-effective • Ensures regulatory decisions are subject to appropriate scrutiny and challenge • Improved ability to challenge regulator decisions that do not result in better outcomes for customers.

Appendix 4: Local Council distribution payments

Council	Distributions from TasWater 2018-19	*Distributions from TasWater 2019-20*
Break O'Day	$ 388,000	*$ 194,000*
Brighton	$ 616,000	*$ 308,000*
Burnie	$ 828,000	*$ 414,000*
Central Coast	$ 954,000	*$ 477,000*
Central Highlands	$ 102,000	*$ 51,000*
Circular Head	$ 316,000	*$ 158,000*
Clarence	$ 2,212,000	*$ 1,106,000*
Derwent Valley	$ 272,000	*$ 136,000*
Devonport	$ 1,092,000	*$ 546,000*
Dorset	$ 194,000	*$ 97,000*
Flinders	$ 36,000	*$ 18,000*
George Town	$ 226,000	*$ 113,000*
Glamorgan Spring Bay	$ 414,000	*$ 207,000*
Glenorchy	$ 2,172,000	*$ 1,086,000*
Hobart	$ 2,172,000	*$ 1,086,000*
Huon Valley	$ 424,000	*$ 212,000*
Kentish	$ 88,000	*$ 44,000*
King Island	$ 66,000	*$ 33,000*
Kingborough	$ 1,232,000	*$ 616,000*
Latrobe	$ 382,000	*$ 191,000*
Launceston	$ 2,724,000	*$ 1,362,000*
Meander Valley	$ 556,000	*$ 278,000*
Northern Midlands	$ 468,000	*$ 234,000*
Sorell	$ 324,000	*$ 162,000*
Southern Midlands	$ 152,000	*$ 76,000*
Tasman	$ 10,000	*$ 5,000*
Waratah-Wynyard	$ 562,000	*$ 281,000*
West Coast	$ 362,000	*$ 181,000*
West Tamar	$ 656,000	*$ 328,000*
Totals	$ ***20,000,000***	*$* ***10,000,000***

Local Council distribution payments (since 2014)[7]

Financial year	Projected distribution ($M)	Actual distribution paid ($M)	Tasmanian Government MOU in place
2014	29	29	-
2015	30	30	-
2016	30	30	-
2017	30	30	Yes
2018	30	30	Yes
2019	20	20	Yes
2020	20	10	Yes
Total	189	179	

[7] Distributions made prior to the State Government becoming a shareholder comprised dividend payments, loan guarantee payments and tax equivalent payments.
Since the government became a shareholder, the distributions have solely comprised dividend payments. The State Government is not entitled to receive dividends.

taswater

Using recycled water safely

Background

Recycled water is a valuable resource but its use must be carefully managed in order to protect public health and ensure environmental sustainability.

The Department of Primary Industries, Parks, Water and Environment Environmental Guidelines for use of Recycled Water in Tasmania 2002 (The Guidelines) provide a guide for safe and sustainable recycled water use in Tasmania and should be used as the first point of reference for recycled water management.

In addition to the requirements of The Guidelines, every property utilising recycled water must operate in accordance with:

- A supply agreement/contract with TasWater
- A site specific irrigation management plan and/or development proposal and environmental management plan (DPEMP) for the recycled water scheme.

This factsheet is intended as a general guide only. For information specific to individual recycled water uses, please refer to the relevant site management plan or contact TasWater.

Non-permitted uses of recycled water

Recycled water must not be used for any of the following:

- Drinking (by humans or livestock)
- Any domestic uses (e.g. filling tanks, household irrigation, personal bathing)
- Irrigation of any land intended for grazing by pigs or poultry
- Irrigation of food crops that will be sold fresh to consumers (e.g. potatoes, carrots, onions, salad greens) regardless of whether they are intended to be cooked prior to consumption
- Filling of any storages (e.g. dams, tanks, etc.) other than those specifically approved for recycled water storage in the site management plan.

In addition to the above, recycled water from the Clarence and Brighton schemes must not be used for irrigation of pasture or crops to be consumed by cattle. This includes production of fodder, including hay and silage, intended for cattle consumption (unless express permission has been granted by TasWater). For further information, refer to Taswater's Recycled Water and Livestock factsheet.

Health and safety requirements

Anyone that may contact recycled water – staff, contractors, site visitors – must be made aware of the following protocols for using recycled water:

- Avoid contact with recycled water. This includes ingestion of water and inhalation of aerosols
- When working near/with recycled water wear protective equipment including waterproof gloves and safety glasses – and if working on irrigation equipment under pressure, a P2 mask
- Hands are to be washed with soap after contacting recycled water or irrigation equipment

- Do not allow contact of recycled water with open wounds
- Flush irrigation equipment with freshwater prior to undertaking maintenance
- Staff/contractors that may come into contact with recycled water are encouraged to speak to their doctor about relevant vaccination requirements (typically Hepatitis A/B is recommended).

Public safety precautions

- Recycled water irrigation must not occur if there is a risk that the public will sustain skin or aerosol contact
- Recycled water, aerosols and spray drift should be minimised by using large droplet irrigation systems, in low wind conditions
- Any infrastructure failures (e.g. leaking pipes) must be promptly reported to TasWater or, if private infrastructure, repaired
- In areas where there is public access, including golf courses, access to irrigation areas must be restricted for a minimum of four hours after irrigation or until irrigation area is dry.

Fencing and signage requirements

- Recycled water signage must in place on the property entrance and boundaries of land utilising recycled water
- Recycled water access points (e.g. taps) must have signage, be coloured lilac and be protected from public access
- Recycled water storages (e.g. dams) must have appropriate fencing and signage.

Buffer zone requirements

- All recycled water users must comply with the recycled water buffer zones defined in either the site management plan or The Guidelines (Table 1)
- Generally, unless otherwise specified in the site irrigation management plan, the following apply:
    - 100 metre buffer to public roads and houses for spray irrigation
    - 20 metre buffer to public roads and houses for drip irrigation.

Environmental precautions

- Recycled water application must be managed to prevent surface ponding and run off into stormwater systems, dams and other waterways
- Recycled water often has higher salinity than other sources of irrigation water and hence users should be aware that it may not be suitable for all species of plant crops
- TasWater undertakes annual soil monitoring on all properties utilising recycled water. Landowners should review soil data to ensure that property management practices (including fertiliser use) are appropriate.

Table 1 – Default minimum recycled water distances

Type of activity	Minimum buffer to nearest road or dwelling (metres)	Reason for buffer
Storage lagoons/holding dams a, b	250	Odour
High pressure spray irrigation (including mini and micro sprinklers) a, b, c	100 f	Spray drift
Pivot irrigators	Dependent on technology	Spray drift
Wastewater transfer and irrigation pumps b, c	50	Noise
Flood irrigation e	50	Odour and runoff
Drip irrigation (including bubble type emitters) b, d	20	Odour and runoff
Surface waters	Dependent on dilution and movement of water	Water quality protection

Key: a – The possible effects of local winds, particularly in spring, should be considered in addition to prevailing winds. b – Appropriate fencing and warning notices are required (refer to section 5.4 and 7.1 of The Guidelines). c – Distance measured from the edge of the wet surface created by the sprinkler(s). d – Subject to pump type, wastewater quality and appropriate noise controls. e – Lower quality wastewater may require more restriction to public access such as secure fencing. f – For design wind speed 10 kilometres per hour. For each 10 kilometre per hour increase of wind speed above this, double the buffer distances for high pressure sprays. Reference: Table 6.1, DPIPWE 2002.

Emergency contact

Please contact TasWater for emergencies (broken pipes, accidental spraying of residents), questions or concerns on 13 6992.

The Guidelines

The Guidelines can be accessed online at http://epa.tas.gov.au/Documents/Use_of_Recycled_Water_December_2002.pdf

TasWater

Recycled water and livestock

INTRODUCTION

TasWater currently supplies recycled water to around 75 customers, many of which are farms which either graze livestock or grow stock fodder. This factsheet has been prepared to provide information as to how recycled water can be safely used with livestock.

RESTRICTIONS ON IRRIGATING LIVESTOCK FEED WITH RECYCLED WATER

Restrictions in regards to recycled water use for livestock are directly associated with water quality, particularly the microbial content. In Tasmania, the environmental guidelines for the use of recycled water (DPIWE, 2002) define three classes of recycled water based on the concentration of thermotolerant coliforms (see Table 1).

Class A and Class B recycled water is generally suitable for irrigating pasture and fodder for livestock, however there are some important restrictions. Table 2 outlines how Class B recycled water should be used for livestock production.

Class C recycled water is not suitable for producing feed for livestock, either by direct grazing or feeding harvested fodder.

Table 1 - Tasmanian recycled water classes

Class*	Mandatory effluent quality	Suitability for livestock
A	< 10 median thermotolerant coliforms per 100ml	Suitable for irrigating livestock feed (with some restrictions)
B	<1,000 median thermotolerant coliforms per 100ml	Suitable for irrigating livestock feed (with restrictions - see table 2)
C	<10,000 median thermotolerant coliforms per 100ml	Not suitable for irrigating livestock feed

* In Tasmania there are currently no schemes that supply Class A recycled water.

BLUE GREEN ALGAE AND LIVESTOCK

Blue green algae (BGA) blooms are a reasonably common occurrence in recycled water dams. Signs of a bloom include discolouration, surface scums and sometimes odour. Some blooms are toxic and therefore potentially harmful to livestock and humans via skin contact or ingestion.

Where a bloom is detected in a TasWater storage, users will be notified, toxin analysis will be completed and further advice provided.

Irradiation with UV light assists with the degradation of most algal toxins on pasture. The following withholding periods (post irrigation) apply for grazing or harvesting of fodder crops:

- At least two weeks (if sunny conditions prevail during this time)
- Up to four weeks if moderately sunny.

High concentrations of algae or elevated levels of toxins may lead to cessation of supply until the bloom subsides. Irrigators should monitor private storage dams for signs of algae and seek advice from TasWater as required.

Table 2 – Permitted uses of Class B recycled water for livestock production

	Stock drinking water	Direct grazing (pasture & fodder crops)	Harvested fodder (silage & hay)	Grain *	Withholding period before grazing & harvesting fodder
Sheep	X	✓	✓	✓	4 hours or until dry
Goats	X	✓	✓	✓	4 hours or until dry
Horses	X	✓	✓	✓	4 hours or until dry
Cattle (beef & dairy) ^ (without adequate helminth reduction treatment)	X	X	X	✓	2 years
Cattle (beef) ^ (with adequate helmith reduction treatment)	X	✓	✓	✓	4 hours or until dry
Cattle (dairy) ^ (with adequate helminth reduction treatment)	X	✓	✓	✓	5 days
Poultry	X	X	X	✓	n/a
Pigs	X	X	X	X	n/a

* Grain refers to the dry, harvested grain - not grain crop residue which should be treated as direct grazing or harvested fodder.

^ Adopted from Department of Environment and Primary Industries, Victoria.

TIPS FOR THE SAFE USE OF RECYCLED WATER

- Avoid contact with recycled water (this includes skin contact, inhalation and ingestion)
- Wash your hands in fresh water after handling recycled water irrigation equipment
- Ensure signage is in place on boundary fencing, points of public access and taps
- Ensure all staff and farm visitors are aware that recycled water is in use
- Remember that recycled water is unsuitable for stock drinking water or any domestic uses (such as irrigation in household gardens, filling tanks or bathing)
- Only use recycled water in accordance with either the Irrigation and Environmental Management Plan (IEMP) for your property or the relevant Development Proposal and Environmental Management Plan (DPEMP).

STOCK DRINKING WATER

Recycled water, of any quality, is not to be used for stock drinking water. Recycled water storages must be fenced to exclude livestock at all times.

CATTLE

The potential presence of helminths in untreated sewage is a risk that needs to be managed in regards to using recycled water for irrigating fodder for cattle. If recycled water is not adequately treated, helminth eggs may be applied to land in recycled water and have the potential to establish cycles of infection between humans and cattle. The resulting disease is Cysticercosis or 'beef measles', (and tapeworm in humans).

Adequate treatment to minimise risk of helminths in recycled water is 25 days pond detention.

The suitability of recycled water for irrigating fodder for cattle depends on the wastewater treatment system and management of recycled water storages. Recycled water must be stored to allow for 25 days settlement prior to irrigation.

While many of TasWater's lagoon based wastewater treatment systems (generally in rural areas) meet this 25 day storage requirement, the larger urban style wastewater treatment plants do not. Nor do they have alternate adequate forms of helminth removal. Unless you have specifically been advised by TasWater that suitable helminth reduction processes are in place, recycled water is not to be used for irrigating fodder for cattle. If you are unsure, contact TasWater on 13 6992.

If recycled water has not been adequately treated for helminth reduction before it is used for irrigation, a two year waiting period is required before fodder grown on the affected land is suitable for grazing or harvesting feed for cattle.

These restrictions apply to direct grazing situations and where fodder is harvested for hay or silage.

Beef measles lifecycle

Helminth eggs are present in sewage and require specific treatment to be removed from recycled water.

Once helminth eggs are consumed by cattle, the immature tapeworm is released and burrows through the intestinal wall, reaches the blood stream and migrates to a muscle in the animal.

A fluid-filled cyst or 'measle' develops in the muscle and contains small immature helminths. Cysts survive in poorly cooked meat, and when eaten by humans, may develop in the gut to form a tapeworm.

POULTRY

The Environmental Guidelines for the Use of Recycled water in Tasmania (2002) specify that recycled water should not be used to grow feed for poultry. This excludes the production of grain, as grain is harvested dry and exposure to recycled water is limited.

At this time there appears to be a void of explanation for this restriction. TasWater will seek a review of this requirement in the upcoming revision of the guidelines, however, in the interim, the guidelines are to be adhered to.

PIGS

Pigs must not be fed or exposed to land or fodder crops that have been irrigated with recycled water. Recycled water storages must be at all times fenced appropriately to prevent contact between pigs and recycled water.

The restriction is to ensure that *Taenia solium* does not establish a lifecycle in Australia. This pathogen is a helminth which has a pig-human lifecycle and can cause severe disease in humans.

HARVESTED FODDER RESTRICTIONS

If harvested fodder (e.g. hay or silage) irrigated with recycled water is to be sold, growers should ensure that it is going to be used appropriately.

Pigs and poultry: fodder grown using recycled water is not suitable for feeding pigs or poultry.

Cattle: unless you have specifically been advised by TasWater that suitable helminth reduction processes are in place, harvested fodder grown using recycled water is not suitable for cattle.

This assurance may be achieved by advising buyers of the restrictions associated with its use, or if supplying a wider market, labelling with the relevant restrictions. For example, "fodder not for consumption by pigs, poultry or cattle".

For further information on recycled water management, please contact TasWater on 13 6992 or email enquiries@taswater.com.au

References

1 Environmental Guidelines for the Use of Recycled Water in Tasmania. Environment Division, Department of Primary Industries Water and Environment, December 2002

2 Guidelines for Managing Blue-Green Algae (Cyanobacteria) Blooms in Sewage Treatment Lagoons. EPA Division, Department of Primary Industries Water and Environment, March 2011