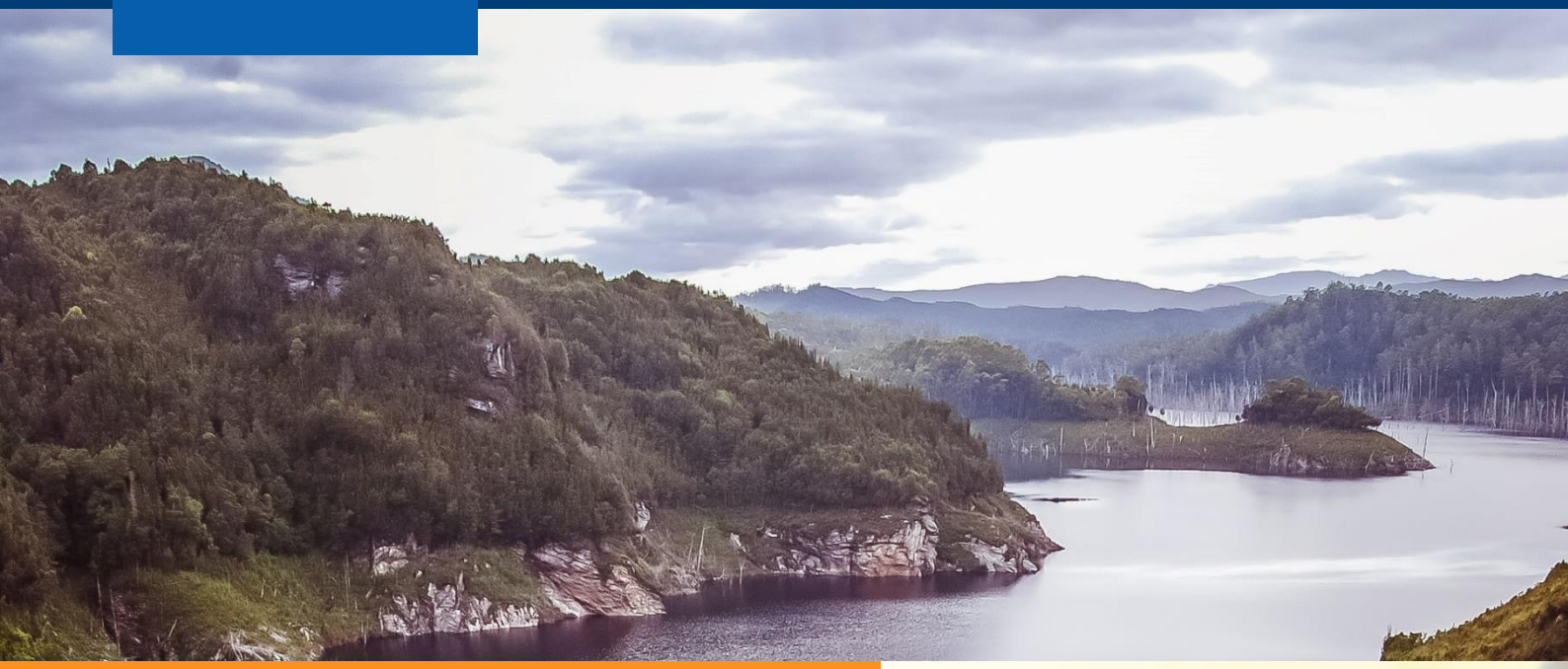
WATER SERVICES
ASSOCIATION OF AUSTRALIA



WSAA submission to Tasmanian Legislative Council inquiry on Taswater's operations

September 2020

Introduction

WSAA welcomes the opportunity to provide a submission to the Tasmanian Legislative Council Inquiry on Taswater's operations.

Our submission offers general comments on urban water reform in Tasmania and then responds to key elements of the Terms of Reference.

Reform in Tasmania

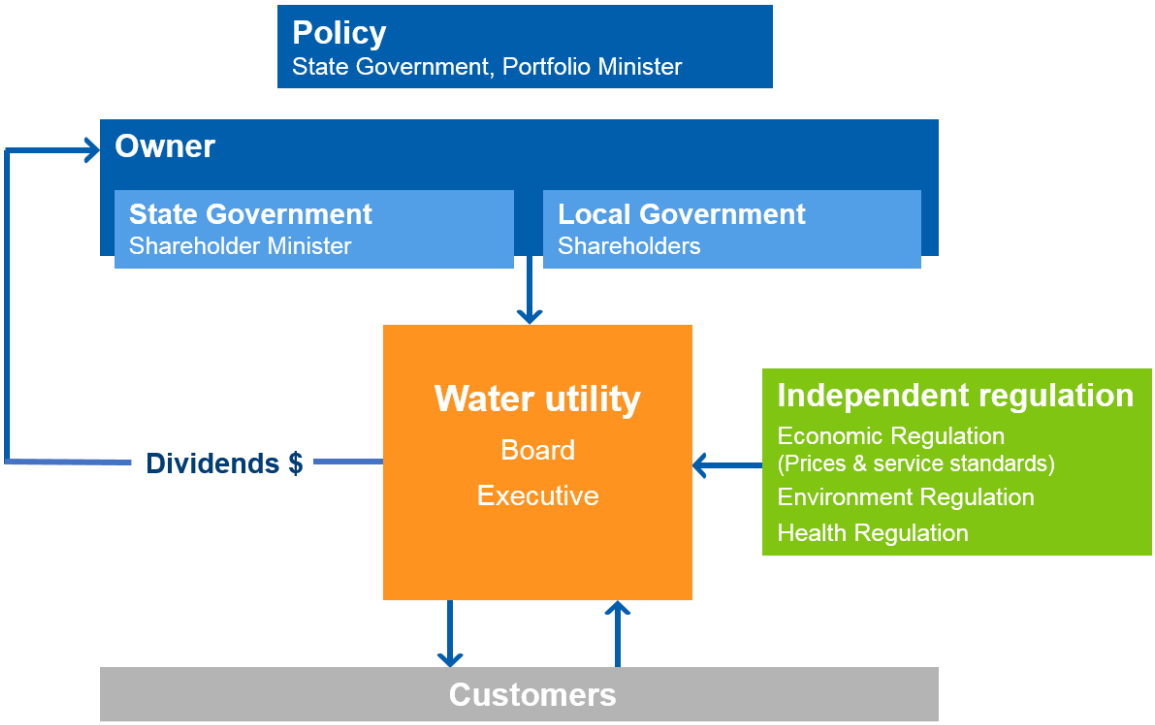
Taswater is one of the recent success stories of the Australian Water Industry. Its model of ownership, governance and regulation is one that is delivering for the customers and community of Tasmania. It is being closely watched as a reform model in Australia and internationally — particularly in New Zealand.

WSAA is an advocate for urban water reform that promotes the long-term interests of customers. Tasmania's urban water reform path from 29 local council owned business to one Local government owned business is well known. However, it provides important context for any consideration of its operations.

In other work, WSAA has the characteristics of successful urban water sector reform as encompassing:

- a corporatised, independent and financially sustainable business model with independent regulation (see figure 1)
- transparency and accountability, leading to improved levels of performance
- economies of scale, supporting financially sustainable businesses that can attract skilled staff and management and improve services and customer outcomes.

Figure 1: Typical governance framework for a corporatised utility



Taswater's structure and governance follows closely the corporatisation model that has underpinned the structure of the water sector since the competition reforms of the 1990s. As set out in figure 1, Tasmania has adopted the three key pillars of the model:

- separating the government policy role from the shareholder role
- A water utility with a skill-based board and professional management
- Independent regulation.

The rational for corporatisation remains as strong today as when it was first implemented in the 1990s.

Therefore, Taswater represents the right model for addressing the underlying urban water challenges the state faces. Adopting each of the key elements of corporatisation has allowed Taswater to make headway in addressing the backlog of investment in a systematic way. The elimination of boiled water alerts – long a feature in Tasmania — is a symbolic but important milestone in its journey.

Addressing the terms of reference

Compliance with regulation

Regulation is critical to protect public health and the environment. All jurisdictions in Australia have well developed regulatory regimes.

However, in Tasmania there are particular issues in compliance with regulation. Owing to the geography and population base in Tasmania, Taswater faces cost disadvantages in complying with regulation compared to utilities serving larger and more densely settled populations.

On behalf of members, WSAA conducts a range of benchmarking. These are driven by management desire to seek efficiencies in their operations and to continually improve service for customers. In determining the level of savings available to utilities, the WSAA benchmarking work reveals the inherent economies of scale in the urban water industry. These are particularly evident in water treatment and wastewater treatment facilities. Larger facilities are significantly cheaper on a per kilolitre basis than smaller facilities and this relationship holds over a wide range of plant sizes — see charts 1 and 2.

Chart 1 Impact of size of plant on water treatment costs

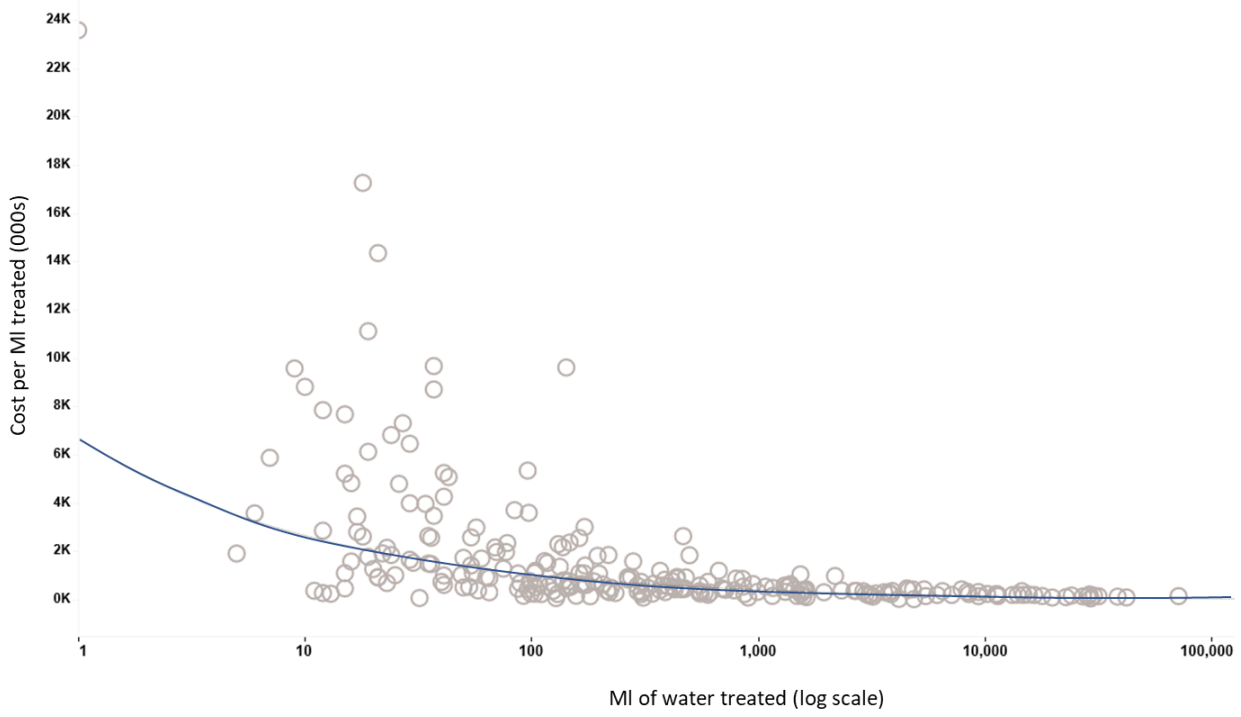
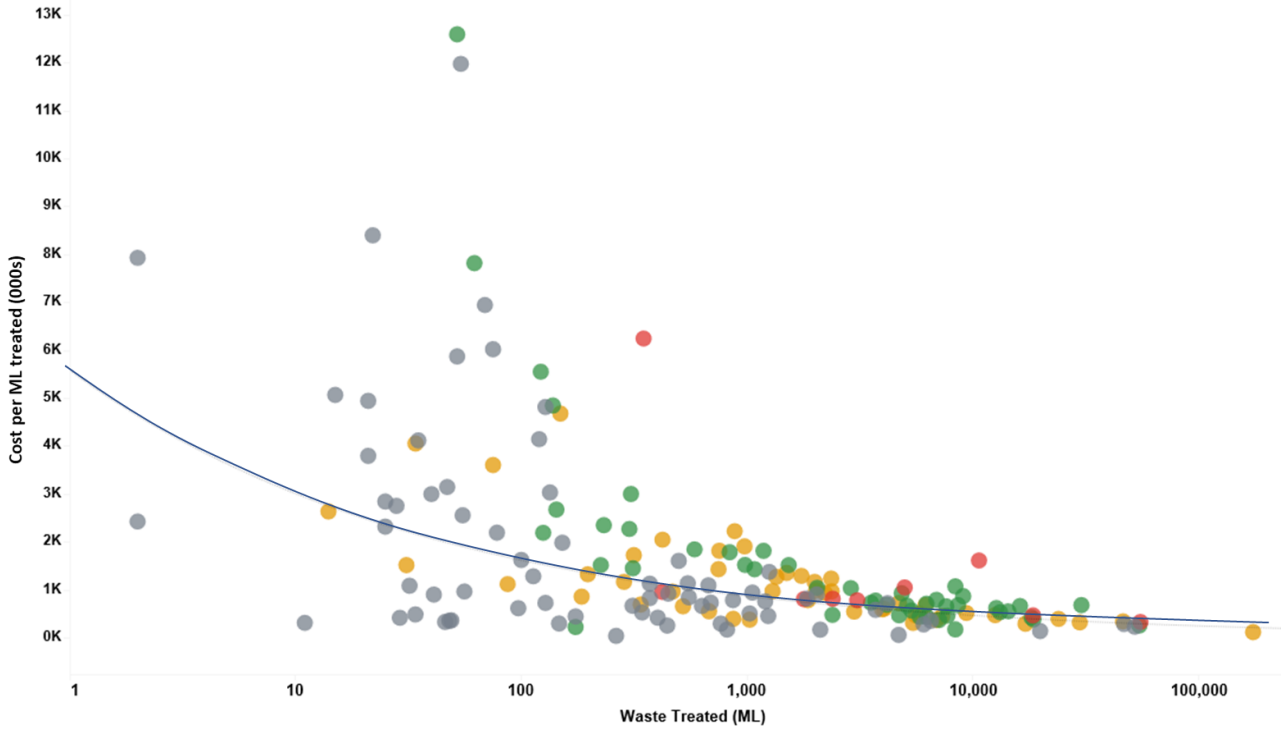


Chart 2 Impact of size of plant on wastewater treatment costs



Our work also reveals that the density of population — the number of properties per km of pipeline is also a driver of costs.

Chart 3 Impact of density of settlement on water network costs

In examining Taswater's operations the Committee should have regard to the fact that Taswater's bills and revenue per customer is similar to most utilities, however, owing to the population and geography of Tasmania, its cost structure is likely to be higher than large mainland utilities.

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

The inquiry is seeking information on Taswater's Trade Waste Regulations in regards to impact on business. This submission covers why trade waste compliance is essential and common practice in other jurisdictions around the country.

Trade waste is any discharge to the sewer that is different from what would be expected from a household. Sewerage systems are designed to transport and treat waste from households. Anything different from this needs to be treated before it is discharged to the sewer. If not, then it can put an extra strain on treatment plants and can impact on their ability to meet environmental standards for discharge to the environment, to reuse wastewater or to reuse biosolids. Some substances are a hazardous, or can react while in the sewer to create hazardous conditions for workers and the public, while others can create operational problems and accelerate corrosion resulting in additional maintenance and replacement costs.

As a result, it is standard (and indeed required) practice for water utilities to manage trade waste for efficient operation and to comply with environmental, biosolids and OH&S requirements. Taswater, like all water utilities have a ''User Pays" model, which means that the generator of the trade waste should bear the cost of treating the waste – either by installing pre-treatment to meet acceptance limits, or through additional charges that reflect the cost to the utility to treat the waste. Management fees also apply for businesses that discharge trade waste to reflect the cost to the utility to manage

agreement. These costs include inspection fees, setting up the agreement and sampling. Without pre-treatment, the burden and additional costs of maintenance and treatment would end up falling to the broader customer base, result in additional capital and maintenance costs and an increase to bills.

The most common example of pre-treatment requirements are grease traps for food businesses. High levels of grease will cause pipe blockages, increase corrosion rates and increased treatment costs at treatment plants. In addition to installing an approved grease trap, there is also the requirement for regular pump outs to ensure they continue to do their job.

Trade waste acceptance standards are set to make sure nothing dangerous ends up in the sewerage system. It is also to protect biosolids quality and recycled water. Treatment plants are only designed to treat wastewater from households which includes substances such as BOD, ammonia and suspended solids. Additional charges apply to businesses that discharge above domestic strength for these substances to reflect the additional costs for treating these substances.

The above rationale for trade waste pre-treatment and acceptance limits is common practice across the country. Taswater's policy and charges are entirely consistent with the best practice approach that can be found in the Australian Sewage Quality Guidelines 2012. Taswater, in recognition of the fact that their trade waste policy is relatively recent compared to other parts of Australia, has put in place some additional measures that are not commonly seen to help minimise the impact on business owners. This includes flexibility in options and financial assistance through interest free loans.

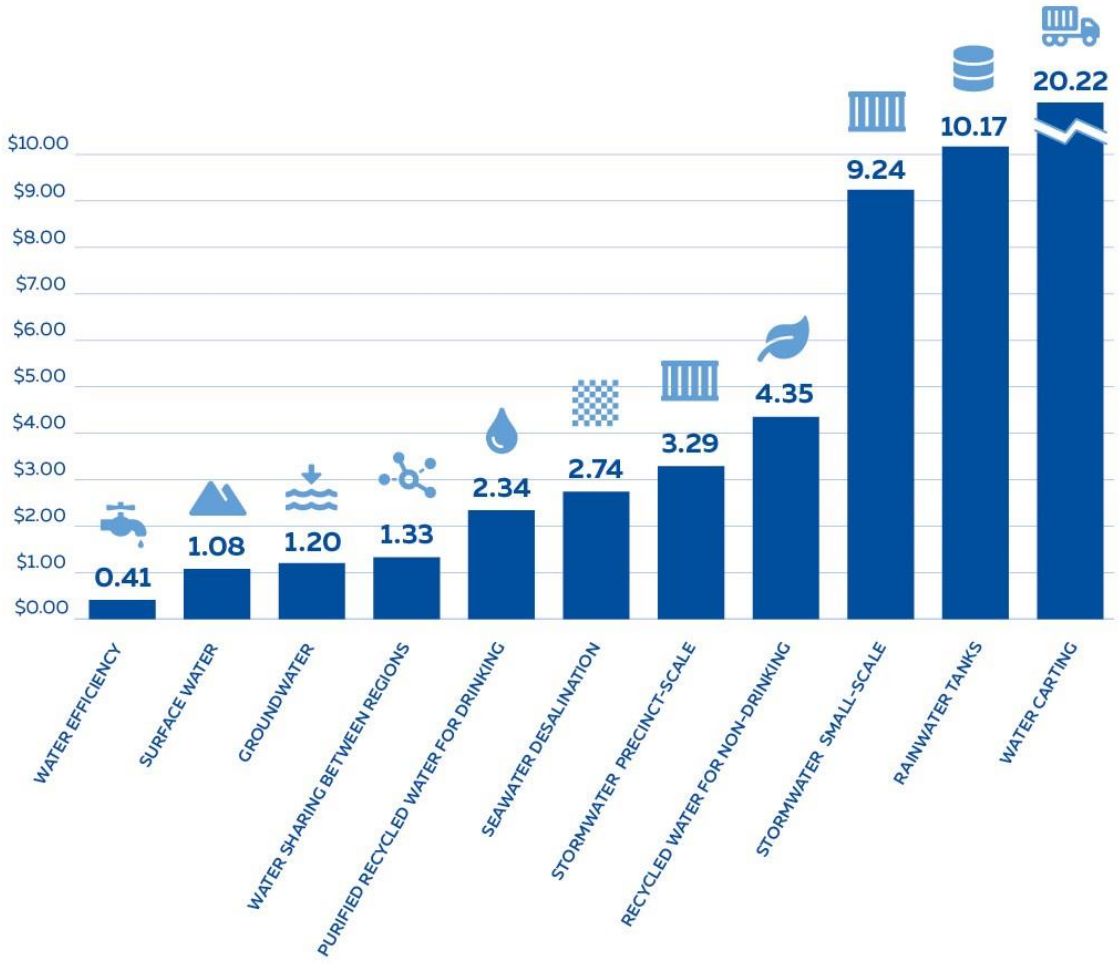
The opportunity for reuse water expansion for irrigation

The inquiry is seeking information on TasWater's operations in relation to the opportunity for reuse water expansion for irrigation.

From a national perspective, WSAA members strong support recycled water options as part of a diversified portfolio of water supply options to meet the water security needs for Australia's cities and regional centres in the face of climate change and drought.

Recycled water for non-drinking purposes, including irrigation, reduces the demand on the drinking water system and avoids discharge of wastewater to the environment. Our recent analysis in All options on the table: Urban water supply options for Australia found that recycled water for non-drinking was relatively high cost as a water supply option (see Chart 4), however when other benefits are considered it can be a viable option in water supply portfolio.

Chart 4: Costs of water supply options (WSAA, 2020)



The levelised cost of the 51 recycled water for non-drinking projects included in our dataset ranged from $0.40 to $15 per kilolitre. The median levelised cost was $4.35 per kilolitre. The cost of recycled water for non-drinking is relatively high cost, because while this option includes lower cost projects that use recycled water for agriculture and industrial processes, it also includes higher cost projects including where pipework is duplicated to provide recycled water to households. From the information available, projects for agricultural or industrial end uses had lower costs, generally less than $5 per kilolitre, with many projects below $2 per kilolitre.

There is a significant range in annual yields for the recycled water projects included in our data set, ranging from 86 megalitres to 26,000 megalitres per annum with a median yield of 477 megalitres. Recycled water for non-drinking project yields are indirectly dependent on climate conditions (which influence demand) and have been adjusted to reflect likely annual yields where available.

Projects with yields greater than 500 megalitres per annum on average tended to have lower levelised costs compared with those projects with yields less than 500 megalitres per annum. This suggest some economies of scale can be achieved with recycled water for non-drinking projects.

Recycled water for non-drinking is a relatively reliable water supply option, and provides increased water security. While indirectly reliant on rainfall where the drinking water source is surface water or groundwater, recycled water provides diversification into the water supply portfolio increasing water security, particularly during drought. Recycled water for non-drinking options can reduce the peak demand and overall demand for drinking water in an urban water system. Potentially delaying or deferring the need to implement higher capital cost water supply investments.

Recycling wastewater and stormwater avoids discharge into the ocean or rivers, reducing nutrients and other pollutants released to waterways. Instead nutrients can be recovered and used beneficially.

The demand for recycled water can vary depending on weather (eg, lower use for irrigation during wetter periods), which can make the option less cost effective. This also means that this form of recycling rarely defers future investment in wastewater treatment and disposal, as a secure disposal route is needed during wetter periods when wastewater flows are generally highest.

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

The inquiry is seeking information on Taswater's management of sewage as well as disposal of biosolids.

Sewage treatment, and biosolids management and disposal is closely linked with trade waste policy and compliance. One of the challenges is capacity of treatment plants and to accommodate future growth and seasonal variations. While technology can help to some degree, effective trade waste management is one of the most effective ways to manage capacity issues as a large number of food businesses (restaurants and cafes) or even a small number of large industrial customers such as food manufacturers can put significant loads on the treatment system. Good management of trade waste can ensure that these industries can continue to expand and not limit growth in the region.

Sewage sludge is the solid, semi-solid or liquid residue generated during the treatment of sewage in the wastewater treatment process. Biosolids is the term used to describe sewage sludge that has been sufficiently stabilised and can be beneficially reused for its nutrient, soil conditioning, and/or energy qualities.

The classification of biosolids will determine how they can be reused. There are two types of grading:

- Contaminant: Based the type and concentration of metals, organic compounds (pharmaceuticals and pesticides) and physical contaminants (such as plastics) occurring in biosolids. This is primarily controlled through trade waste policy and monitoring. Biosolids with a poor contaminant classification cannot be beneficially reused and may need to be transported interstate for treatment or sent to landfill.
- Stabilisation: The processing of biosolids to reduce or eliminate the potential for putrefaction and thus reduce pathogens, vector attraction and offensive odours. A high stabilisation grade is achieved through treatment and processing of the biosolids. The higher the grade, the more beneficial uses for the biosolids.

Biosolids processing and reuse is a specialised service, governed by strict regulations. It is standard practice for water utilities to use a contract to manage additional treatment, transport and disposal of biosolids to allow for beneficial reuse.

For more information on EPA guidelines and requirements for biosolids classification, transport and reuse refer to
https://epa.tas.gov.au/Documents/Tasmanian%20Biosolids%20Reuse%20Guidelines%202020.pdf

The use of biosolids represents an appropriate use of a resource and closes the 'nutrient loop'. The processing and treatment of biosolids allows beneficial reuse. In 2019, beneficial use accounted for 91% of biosolids end use in Australia with agriculture (67%) and land rehabilitation (16%) the two biggest uses[1]. Processing biosolids within the state means that the benefits, including the valuable nutrients for agriculture and land stay local. The alternative is large costs and emissions to transport

[1] AWA and Australian &NZ Biosolids Partnership, 2019

unprocessed biosolids long distances or worse still, for them to be sent to landfill, stockpiled or discharged to ocean (where still permitted) where they create an environmental issue and the stored nutrients are not recaptured for beneficial use.

For more information on how biosolids are used in Australia go to https://www.biosolids.com.au/guidelines/australian-biosolids-statistics/

Dividends

The select committee seeks comments on the Effect of Taswater's dividend policy on Local Government Revenue.

Governments across Australia have billions of dollars invested in water utilities. It is appropriate that they receive a dividend from that investment. Dividends are critical to funding other state and local government services such as health and education and community facilities.

Nevertheless, for commercial companies', dividend payments differ depending on circumstances. When companies are in a strong growth phase and have a high need for capital, they will often reduce dividend payments to assist funding that growth from retained earnings.

As noted, the urban water sector is in a strong growth phase. As a general recommendation WSAA suggests that as part of ensuring financial resilience governments should review their dividend policies for urban water to ensure they remain within normal commercial practice. It considers these comments also apply equally to Taswater's dividend policy.

Contact

WSAA welcomes the opportunity to discuss this submission further.

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