Queensland's Urban Potable Water and Sewerage Benchmarking Report 2014/15

This is the fifth annual Urban Potable Water and Sewerage Benchmarking Report to be produced by ***qldwater*** for Queensland. It contains a suite of indicators and benchmarking data for 58 of the QLD urban water/sewerage utilities that reported data via SWIM in 2014/15. The data is presented in figures which provide comparative information to enable each Service Provider to benchmark its performance against that of similar sized Service Providers.

The report is divided into two areas (i.e. Sewerage Services and Potable Water Supply) and looks at aspects of capacity and viability, customer service, condition of assets, management and performance.

Queensland (and NSW) differs from other States and Territories in Australia in that its drinking water and wastewater services are primarily the responsibility of local government. In Queensland, urban services are provided by around 70 councils and two council-owned Distribution Retail Entities (DREs) compared to other States and Territories that typically have either a single authority or a number of regional statutory authorities.

Queensland's council-owned Service Providers spend around $2 billion each year operating the $37B worth of water and sewerage infrastructure under their control. This infrastructure includes approximately:

- 381 water treatment plants which can produce 1522 ML of drinking water per day
- 285 sewage treatment plants
- 41,502 km of water mains
- 33,397 km of sewerage mains and channels
- 552 bores, 76 dams and 84 weirs
- 3689 sewage pumping stations
- 905 water pumping stations

These water and wastewater services are provided to more than 1.85 million water connections and 1.66 million sewerage connections in Queensland. They are required for public health and essential services – and generally must operate continuously without disruption.

Legislative changes in 2014 resulted in a change to the reporting requirements of Service Providers in Queensland. 2014/15 was the first time that Service Providers in the State reported via the *Key Performance Indicators Framework*. This change underscores the importance of achieving good outcomes in compliance and delivering services to communities through rigorous benchmarking. This has brought Queensland in line with several other Australian jurisdictions, and with the National Performance Framework whereby larger Service Providers have been required to report annual data for some time.

This 2014/15 report differs slightly from earlier reports as some indicators are no longer reported by all Service Providers due to these legislative changes in reporting requirements. Some indicators are now only reported by Service Providers with greater than 10,000 water connections, while others are not separated into water and sewerage components or not reported at all.

Indicators no longer reported:

- % of sewage volume treated that was compliant
- % of total population where microbiological compliance was achieved
- Number of sewerage service complaints (per 1,000 properties)
- Number of water service complaints (per 1,000 properties)

Indicators now only reported by Service Providers with greater than 10,000 connections:

- Economic real rate of return – water
- Economic real rate of return – sewerage
- Typical Residential Bill – water
- Typical Residential Bill – sewerage
- Real water losses
- Sewage overflows reported to the environmental regulator

New indicators:

- (Average) Response/reaction time for incidents (water)
- Number of water and sewerage complaints per 1,000 properties (in previous *Benchmarking Reports* the "number of sewerage service complaints per 1,000 properties" and "number of water service complaints per 1,000 properties" were reported)
- Typical annual residential water and sewerage bill (in previous *Benchmarking Reports* the "Typical annual residential bill" was reported by all Service Providers as separate components (sewerage and water).

qldwater strongly supports the use of performance reporting and benchmarking to assist Service Providers in the continuous improvement of the services they provide to their community. Performance reporting and benchmarking provides valuable comparative data. This data enables each Service Provider to critically examine its performance by investigating trends in its indicators and by benchmarking these against those of similar Service Providers, and particularly against one or two high-performing Service Providers and implementing the best-practices identified.

External factors potentially influencing performance

There are a wide range of 'external' factors which can influence a Service Provider's performance. These factors include things such as:

- climate (e.g. rainfall patterns, evaporation, temperature)
- geography (e.g. geology (i.e. soil reactivity (shrink-swell)), typology (i.e. mountains, flood plain))
- size (e.g. population, number of connections, km^2)
- location (e.g. SEQ vs. Western Qld, dense urban vs. rural urban)
- services provided (e.g. water treatment vs. treated water imported from other supplier)
- water supply (e.g. river vs. dam vs. bore water may require different treatment, distance to supply)
- asset age (e.g. old assets may require more maintenance/repairs and be less efficient)
- regulatory requirements (e.g. sewerage treatment levels)

It is important to take into account these factors when comparing performance with other Service Providers.

One way for Service Providers to limit the effects of these external factors is to examine trends in their own performance indicators over time. It must be remembered though, that there may be changes in the external factors over time as well (e.g. wet vs. dry years).

Service Provider size as a factor in assessing Statewide 'benchmark' performance

It is important to note up front that the figures for smaller Service Providers may be skewed towards higher values for indicators that standardise data by 'per property', 'per connection' or 'per 100 km of mains'. This is due to these smaller Service Providers having very low populations and relatively short main lengths which means that even small figures can be magnified when compared with larger organisations. This means that these indicators can result in small organisations comparing poorly with larger ones and in such cases benchmarking is only useful against Service Providers of a similar size.

Sewerage Services

Capacity and viability

The total reported capital expenditure on sewerage infrastructure in Queensland was $396,037,478 for 2014/15. The Statewide median capital expenditure was $212 per property. In addition, the total reported operating costs to collect and treat sewerage from across the State was $611,346,812 at a median cost of $434 per property for the State.

Capital expenditure

Capital expenditure will vary markedly from year-to-year, particularly for Service Providers with a small number of sewerage assets, but still provides a snapshot of investment across the industry.

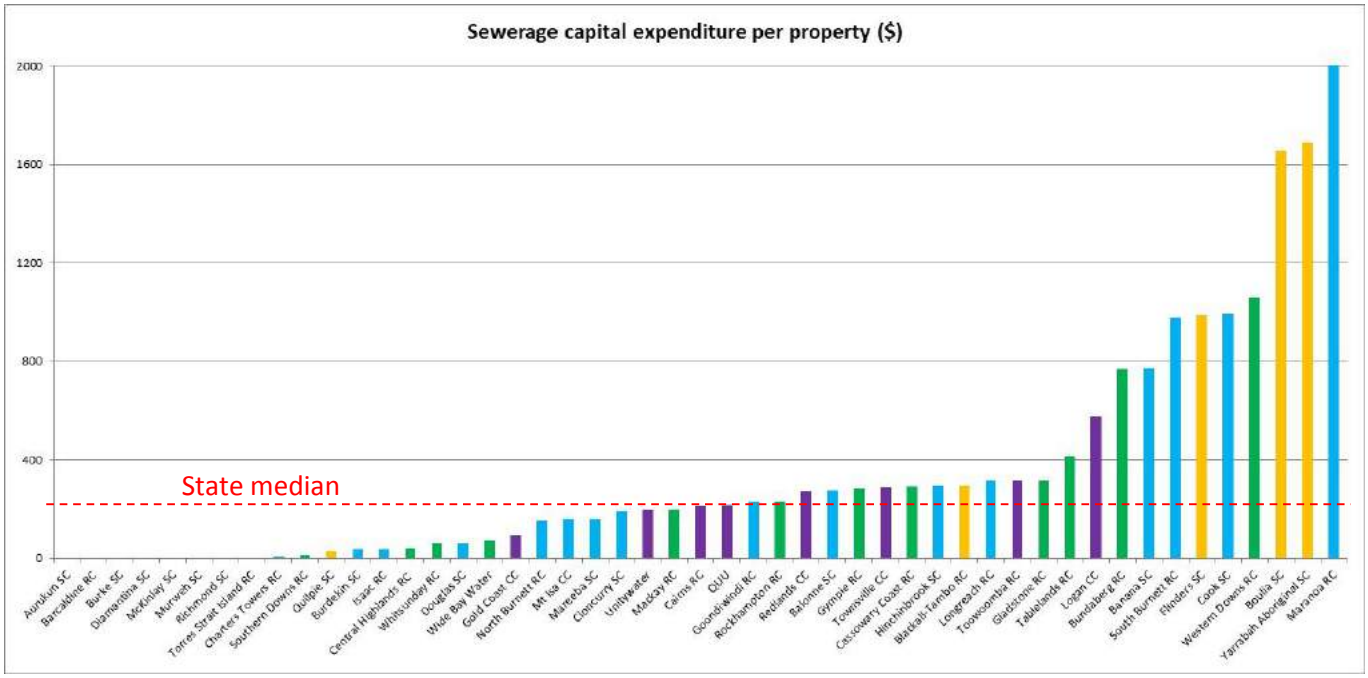

Figure 1. Sewerage capital expenditure per property ($)[1].

Note: This figure shows ranked values of sewerage capital expenditure per property ($) for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (orange),

[1] Note: figures for smaller SPs may be skewed towards higher values due to their very low populations.

medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for sewerage capital expenditure is $212 per property. Each bar represents one SP.

Operating costs

The 'operating cost (sewerage) per property' can be a good indication of the performance of a Service Provider. The components of operating cost (operation, maintenance and administration) are:

- Charges for bulk treatment/transfer of sewerage
- Salaries and wages
- Overheads on salaries and wages
- Materials/chemicals/energy
- Contracts
- Accommodation
- All other operating costs that would normally be reported
- Items expensed from work in progress (capitalised expense items) and pensioner remission expenses
- Competitive neutrality adjustments, they may include but not be limited to, land tax, debits tax, stamp duties and council rates

Cost drivers for sewerage services

The type of treatment as well as the level of treatment (related to the discharge requirements) of sewage will affect the operating costs. With higher levels of sewerage treatment come associated increases in other costs, particularly energy.

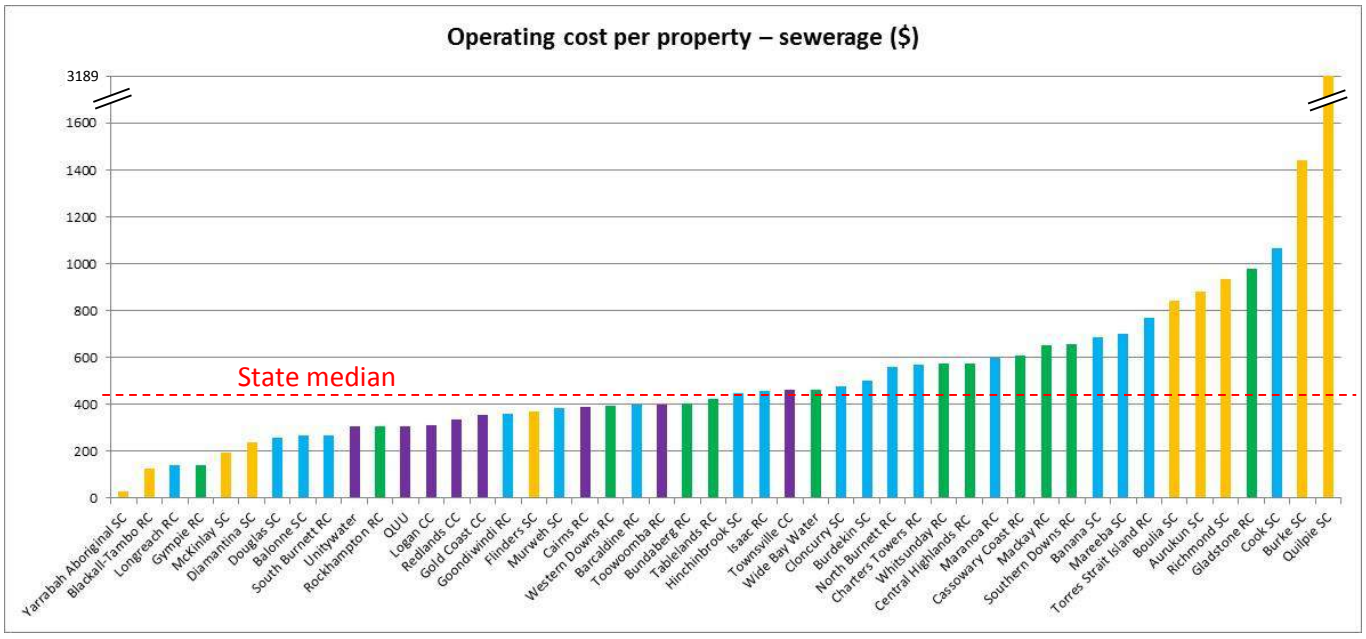

Figure 2. Operating costs per property – sewerage ($)[2].

Note: This figure shows ranked values of operating costs per property – sewerage ($) for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (**orange**), medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for operating costs – sewerage is $434 per property. Each bar represents one SP.

[2] Note: figures for smaller SPs may be skewed towards higher values due to their very low populations.

Topography will also affect operating costs through the amount of pumping needed to move the sewage to the treatment plant. With higher levels of sewage pumping come an associated increase in asset maintenance and energy costs.

Service Providers with a number of separate sewage systems, larger areas of low density service (i.e. low numbers of properties serviced per km of main) and those with higher numbers of, and smaller, sewerage treatment plants will generally need more employees to effectively manage their systems and thus have higher operational costs.

The maintenance costs of sewerage infrastructure are related to several factors, such as the age and condition of the assets, the soil reactivity (shrink-swell rating) and the density of connected properties.

Typical annual residential bill

The 'typical annual residential bill – sewerage' is the dollar amount of the typical residential sewerage bill for the financial year, including special levies. If the bill is cost-reflective and a Service Providers' operations are run effectively and efficiently, the typical residential bill should be minimised and indicate the Service Provider is providing value for money to the community. However, if bills are lower than costs then a Service Provider may not be financially sustainable. The aim for a Service Provider should be to provide agreed levels of service at the lowest, but importantly sustainable, residential bill.

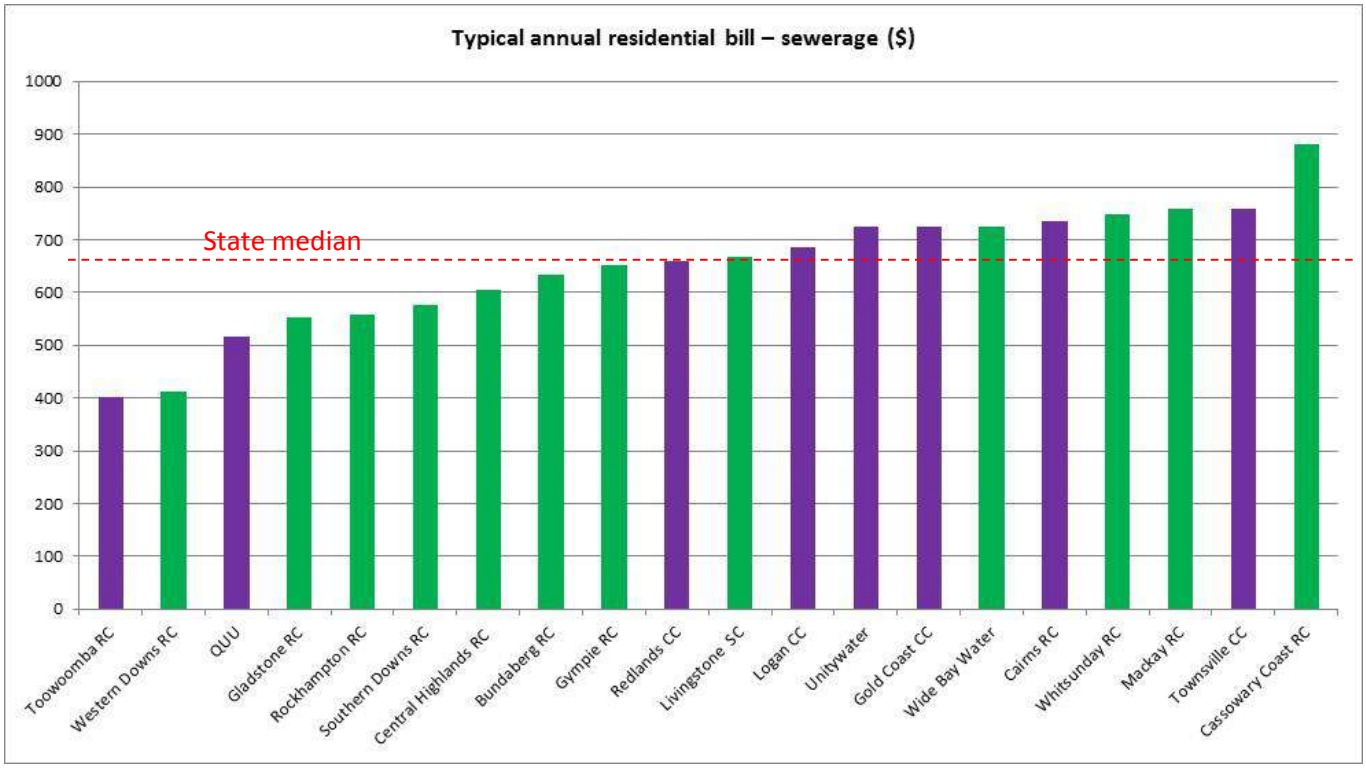

Figure 3. Typical annual residential bill – sewerage ($).

Note: This figure shows ranked values of the typical annual residential bill – sewerage ($) for each Service Provider (SP) with greater than 10,000 connections who reported in 2014/15 in 2 groups based on the number of connected properties served – large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the typical residential bill – sewerage of these SPs is $664. Each bar represents one SP.

Note that this indicator is one of those that is now only required to be reported into separate water and sewerage components by Service Providers with greater than 10,000 connections. The median typical annual residential bill for sewerage services by Service Providers with greater than 10,000 connections was $664. The median value for the typical annual residential bill (for water and sewerage combined) is $1369

and is reported by all Service Providers (see Fig. 4). The trend for smaller Service Provider's bills to reflect lower costs than large providers is opposite to the trend of decreasing cost with size demonstrated for large utilities nationally.

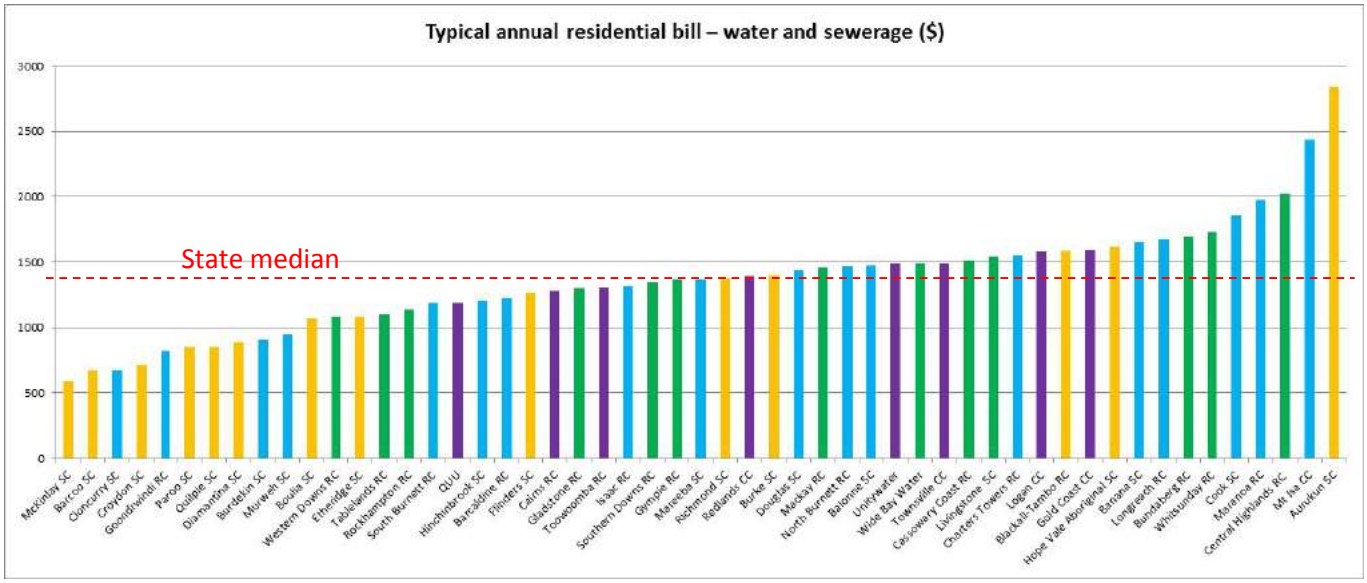

Figure 4. Typical annual residential bill – water and sewerage ($).

Note: This figure shows ranked values of the typical annual residential bill – water and sewerage ($) for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (**orange**), medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the typical residential bill – water and sewerage is $1369. Each bar represents one SP.

Economic real rate of return

The financial performance of most Service Providers is intricately linked with that of the owner council. This makes determining the financial performance of the sewerage operations, as an individual business unit, hard to assess for many Service Providers.

In addition, an important distinction must be made between the category of (usually larger) councils that are financially sustainable and can provide dividends to benefit their communities, and the smaller and often more remote councils. In the latter, smaller populations (and thus rate bases) can mean that capital investment in sewerage infrastructure is difficult and relies on funding assistance and subsidies from other council income. In some cases even operating costs can be difficult to recover.

One comparator of financial performance is the Economic Real Rate of Return (ERRR). The ERRR (sewerage) is the revenue from sewerage business operations less operating expenses for the sewerage business divided by written down replacement cost of operational assets. An appropriate value for ERRR is difficult to determine for Service Providers but should be at least positive with a margin to allow for return on capital (NWC and WSAA, 2010). OTTER (2011) suggested that an ERRR of around 7% was required for full cost recovery in the Tasmanian urban water industry while the Productivity Commission questioned whether the NWC and NSW Office of Water definition of full cost recovery as an ERRR "greater than or equal to zero" was sufficient (see PC, 2011, p. 386).

ERRR is now only reported for Service Providers with greater than 10,000 water connections. The Statewide median value for ERRR (sewerage) for these Service Providers was 4.7%.

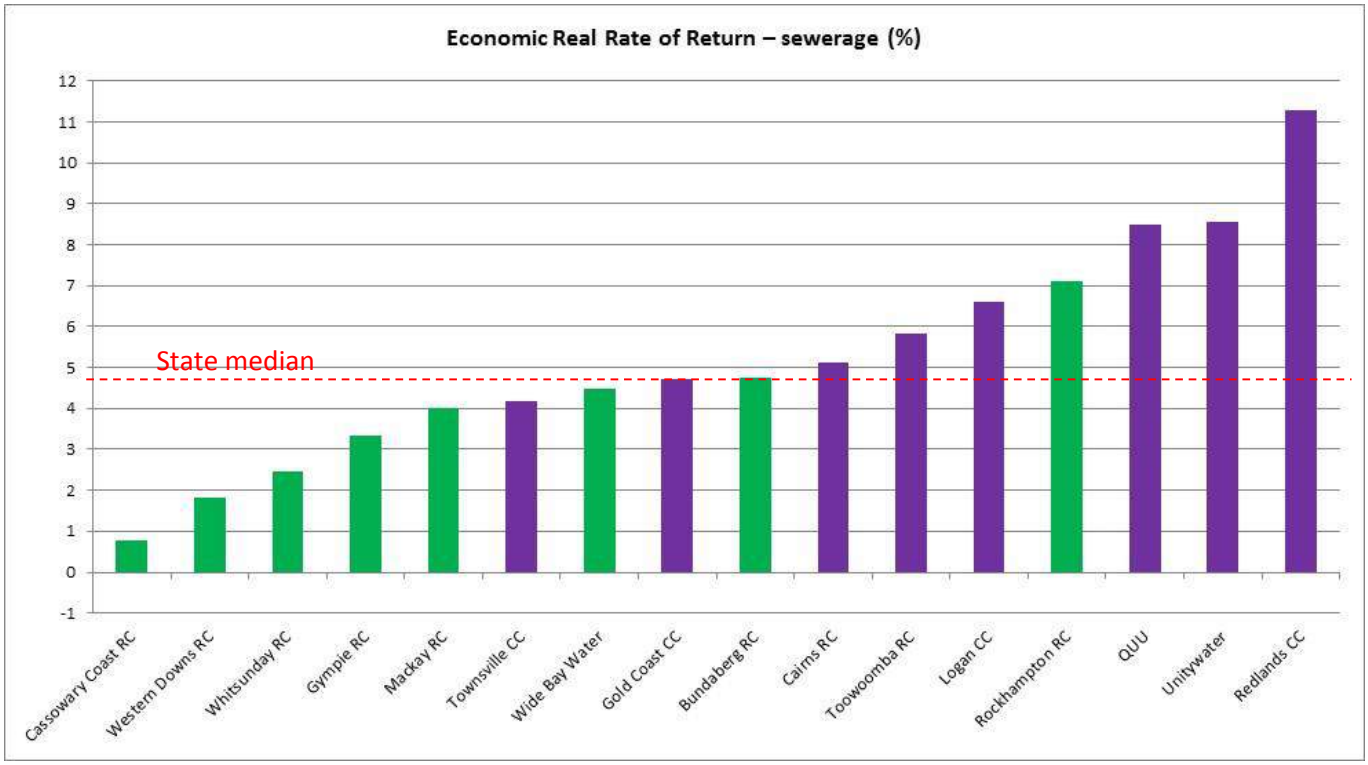

Figure 5. Economic Real Rate of Return (ERRR) – sewerage (%).

Note: This figure shows ranked values of the ERRR – sewerage (%) for each Service Provider (SP) with greater than 10,000 connections who reported in 2014/15 in 2 groups based on the number of connected properties served – large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the ERRR – sewerage of these SPs is 4.7%. Each bar represents one SP.

Customer service

Water and sewerage complaints

Water and sewerage complaints are no longer required to be reported separately (or broken down into sub-categories like service, billing, etc.). Water and sewerage complaints (combined) is reported by all Service Providers and shown below (Fig. 6). Unfortunately, there is no consistent interpretation of the definition of what comprises a 'complaint' and comparisons among Service Providers are therefore largely inappropriate. During 2014/15 a total of 20,931 water and sewerage related complaints were reported across the State. The Statewide median number of water and sewerage complaints per 1,000 properties was 8.

Response time to sewerage incidents

The Statewide median for the average response time for sewerage incidents was 45 minutes but there is no 'ideal' response time as it varies depending on, the type of incident (e.g. emergencies should be treated faster than minor issues) and the distance to the area of concern. Response time to incidents is meant to provide an indication of customer service: no customer wants to be left waiting when they have a serious water or sewerage problem. Unfortunately, there is no consistent interpretation of the definition, or more importantly, no guidance in the definition of which 'incidents' to include in the analysis. Therefore, comparisons among Service Providers are largely inappropriate.

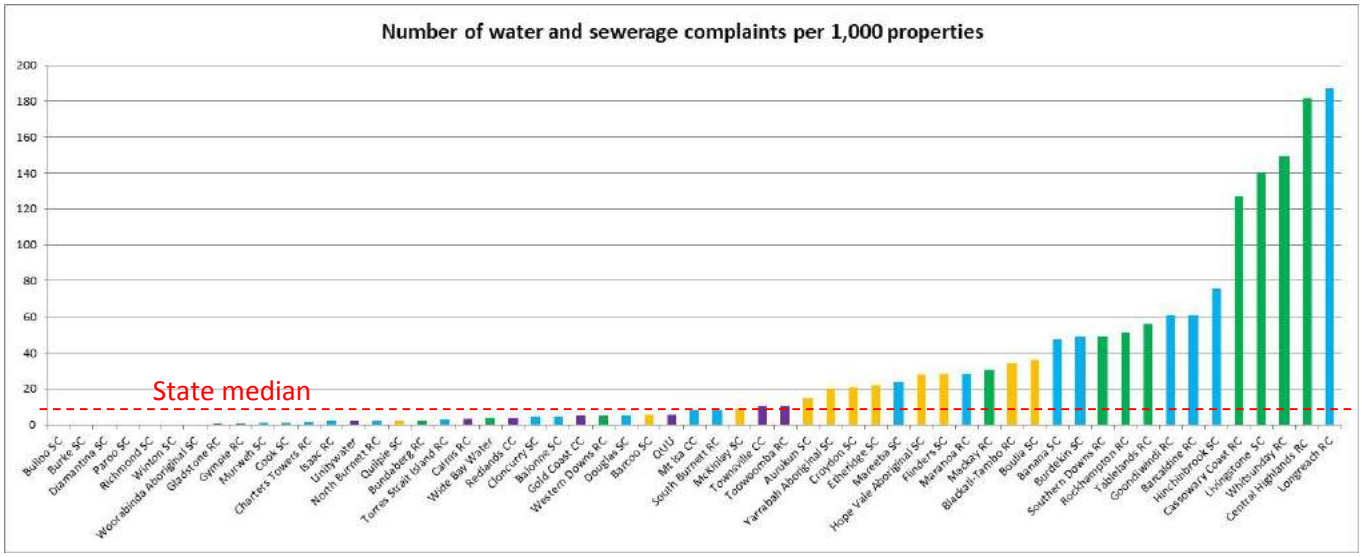

Figure 6. Number of water and sewerage complaints per 1,000 properties[3].

Note: This figure shows ranked values for the number of water and sewerage complaints per 1,000 properties for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (**orange**), medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the number of water and sewerage complaints per 1,000 properties is 8. Each bar represents one SP.

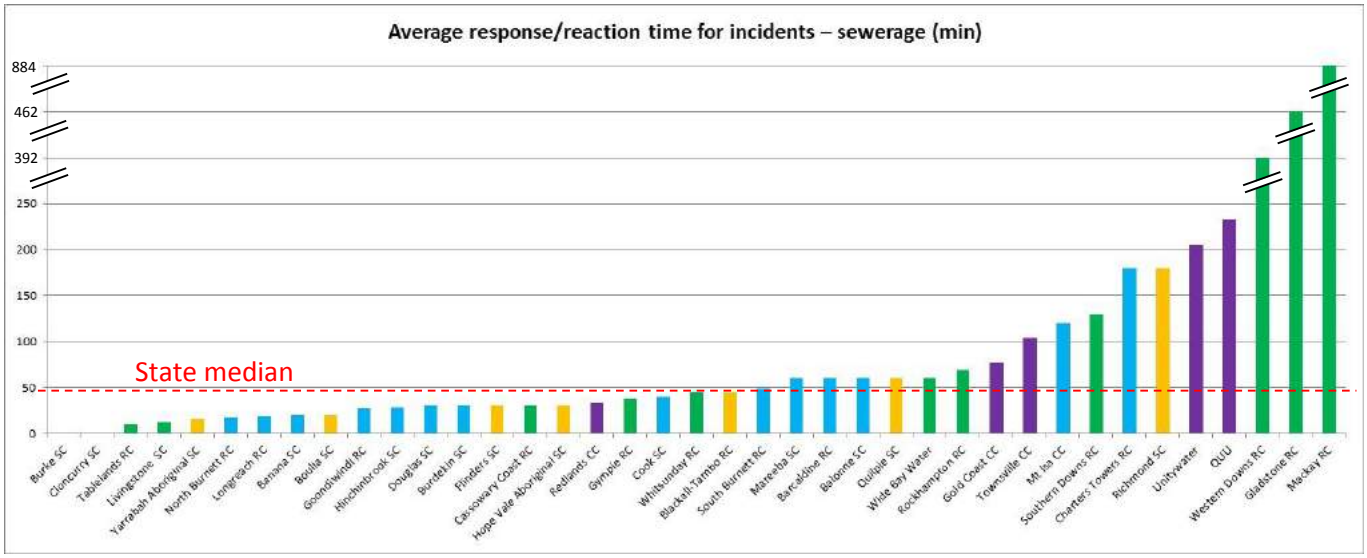

Figure 7. Average response/reaction time for incidents – sewerage (min).

Note: This figure shows ranked values for the average response/reaction time for incidents – sewerage (min) for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (**orange**), medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the (average) response/reaction time for incidents (sewerage) is 45 minutes. Each bar represents one SP.

[3] Note: figures for smaller SPs may be skewed towards higher values due to their very low populations.

Condition of assets

Sewerage main breaks and chokes

The Statewide median for the number of sewer main breaks and chokes reported per 100 km of sewer mains during 2014/15 was 9.6. This indicator can provide a rough surrogate for the condition and age of sewerage infrastructure although data may include breaks caused by third parties (e.g. excavation).

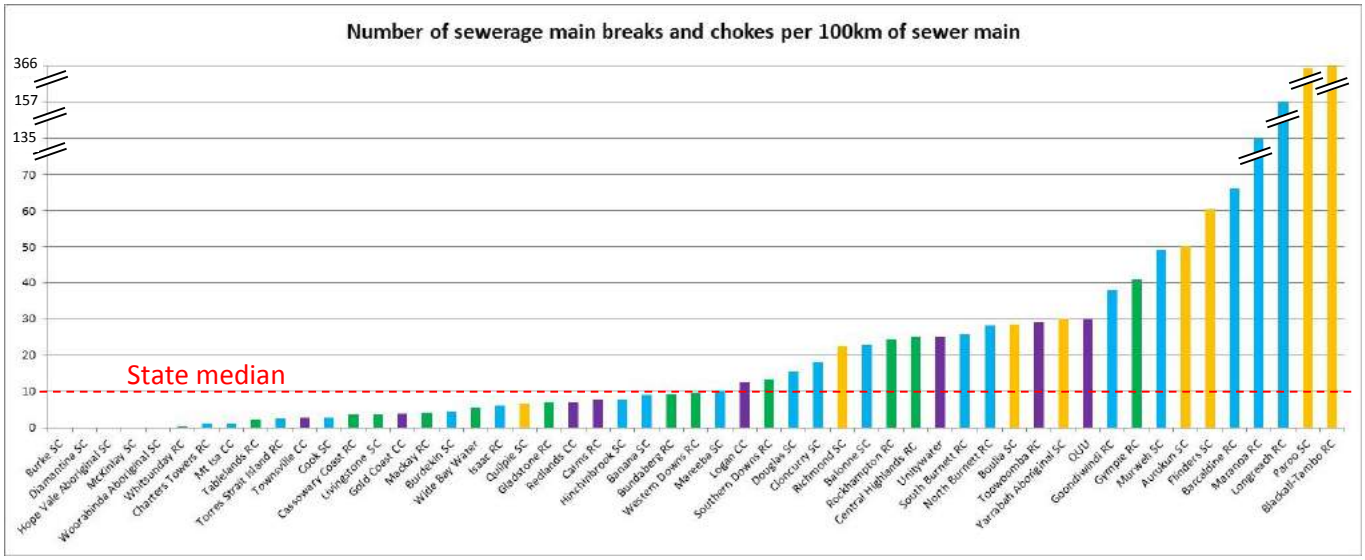

Figure 8. Number of sewerage main breaks and chokes per 100 km of sewer main[4].

Note: This figure shows ranked values for the number of sewerage main breaks and chokes per 100 km of sewer mains for each Service Provider (SP) with greater than 10,000 connections who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (**orange**), medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the number of sewerage main breaks and chokes is 9.6 per 100 km of sewer main. Each bar represents one SP.

Performance

Sewage overflows

Sewage overflow data is now only reported for Service Providers with greater than 10,000 water connections. During 2014/15 these Service Providers reported that a total of 158 sewage overflow events were reported to the environmental regulator (EHP) with a Statewide median for Service Providers with greater than 10,000 connections of 0.54 events per 100 km of mains. Overflows at pumping stations may occur in wet weather when sewage flows are increased from illegal connections to the sewer and because of stormwater infiltration. Overflows can also be caused by mechanical or power failures or blockages. Some pumping stations are designed with a capacity to overflow at such times to prevent back-up of sewage and potential overflows in private premises. The ways that sewage overflows are captured and reported varies markedly around the state meaning that comparisons between service providers are often affected more by their internal reporting processes than their performance. There is also little correlation between the number of overflows and environmental outcomes because all overflows regardless of size or impact must be reported to the regulator.

[4] Note: figures for smaller SPs may be skewed towards higher values due to their relatively short main lengths.

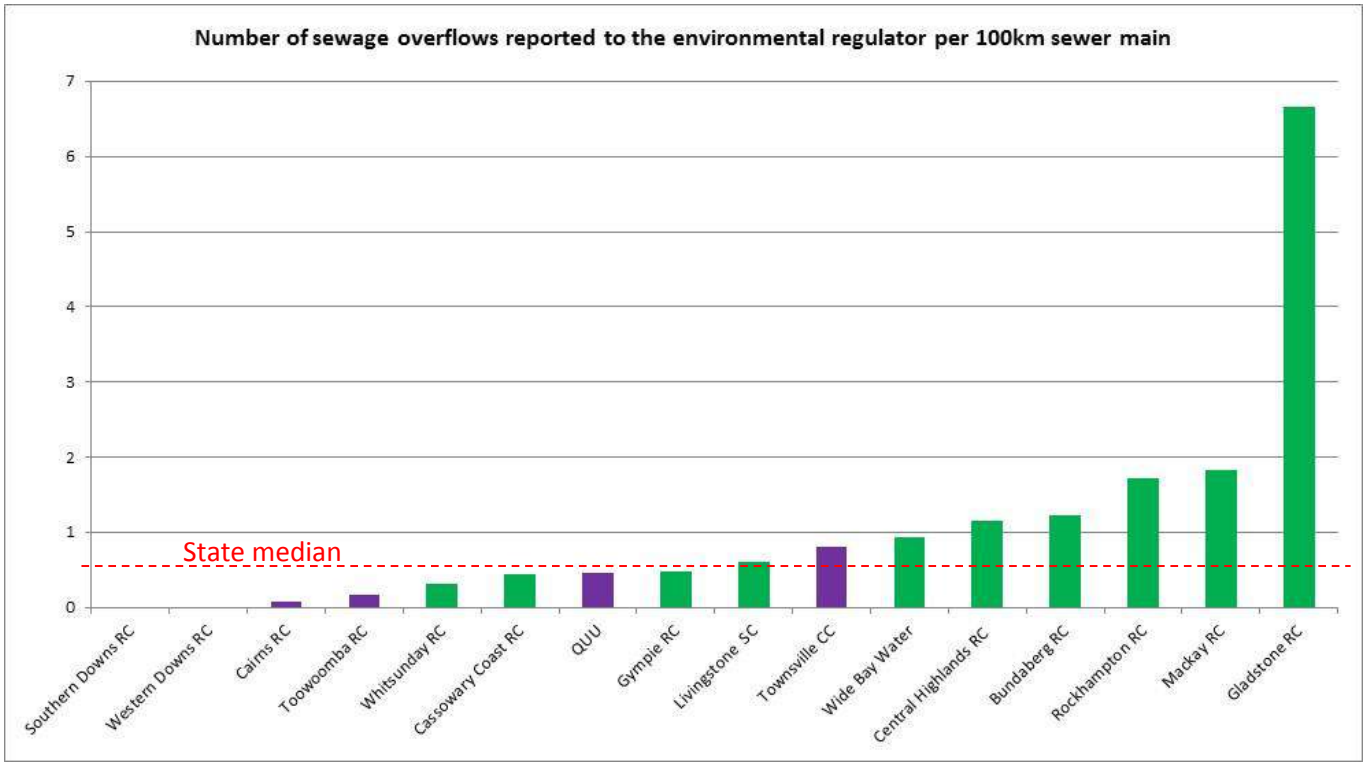

Figure 9. Number of sewage overflows reported to the environmental regulator per 100 km sewer main.

Note: This figure shows ranked values for the number of sewage overflows reported to the environmental regulator per 100 km sewer main for each Service Provider (SP) with greater than 10,000 connections who reported in 2014/15 in 2 groups based on the number of connected properties served – large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the number of sewage overflows reported to the environmental regulator for these SPs is 0.54 per 100 km sewer main. Each bar represents one SP.

Potable Water Supply

Capacity and viability

The median value of the average reported annual potable water supplied per property for the State was 519 kL in 2014/15 which is slightly higher than previous years (474 kL in 2013/14 and 509 kL in 2012/13) perhaps reflecting the ongoing drought across most of the State.

The reported total capital expenditure on water supply was $327,879,001 for 2014/15. The Statewide median for capital expenditure was $191 per property. In addition, the reported total operating costs to supply water from across the State was $1,425,595,679 at a median cost of $631 per property for the State.

Capital expenditure

Capital expenditure will vary markedly from year-to-year, particularly for Service Providers with a smaller number of water assets, but still provides a snapshot of investment across the industry.

Operating costs

Service Providers with cost reflective pricing and effective and efficient systems will have lower operating costs and thus provide better value for money to their customers. The components of operating cost (operation, maintenance and administration) are:

- Water resource access charge or resource rent tax.
- Purchases of raw, treated or recycled water

- Salaries and wages
- Overheads on salaries and wages
- Materials/chemicals/energy
- Contracts
- Accommodation
- All other operating costs that would normally be reported
- Items expensed from work in progress (capitalised expense items) and pensioner remission expenses
- Competitive neutrality adjustments, they may include but not be limited to, land tax, debits tax, stamp duties and council rates

Cost drivers for water supply

Service Providers that maintain major storage dams for their water supply have larger capital expenditure and operating costs.

The amount and type of treatment needed for the water sourced will affect the operating costs. However, larger water treatment plants can generally reduce this cost, relatively, through economies of scale.

The topography and location of the water supply will also affect operating costs through the amount of pumping needed to move the water to the treatment plant and then on to the customer. High numbers of connections within urban areas provide economies of density which will help to reduce this cost, relative to Service Providers with widely spaced connections. With high levels of water pumping (e.g. in hilly areas) come associated increases in energy costs.

Service Providers with a number of separate water supply systems, larger areas of low density service (i.e. low numbers of properties serviced per km of main) and those with higher numbers of, and smaller, water treatment plants will generally need more employees and other resources to effectively manage their systems and thus have higher costs.

Maintenance costs of water supply infrastructure is related to several factors, such as the age and condition of the assets, the soil reactivity (shrink-swell rating), water pressures and the density of connected properties.

Typical annual residential bill

The 'typical annual residential bill – water' is the dollar amount of the typical residential water bill for the financial year, including special levies. If the bill is cost-reflective and a Service Providers' operations are run as effectively and efficiently as possible, then the typical residential bill should be minimised and the Service Provider should be providing value for money to the community. The aim for a Service Provider should be to provide agreed levels of service at the lowest, but importantly sustainable, residential bill.

This indicator is now only required to be reported into separate water and sewerage components by Service Providers with greater than 10,000 connections. The median typical residential bill for water supply by Service Providers with greater than 10,000 connections was $762. The typical annual residential bill (water and sewerage combined) is reported by all Service Providers and shown above in Figure 4.

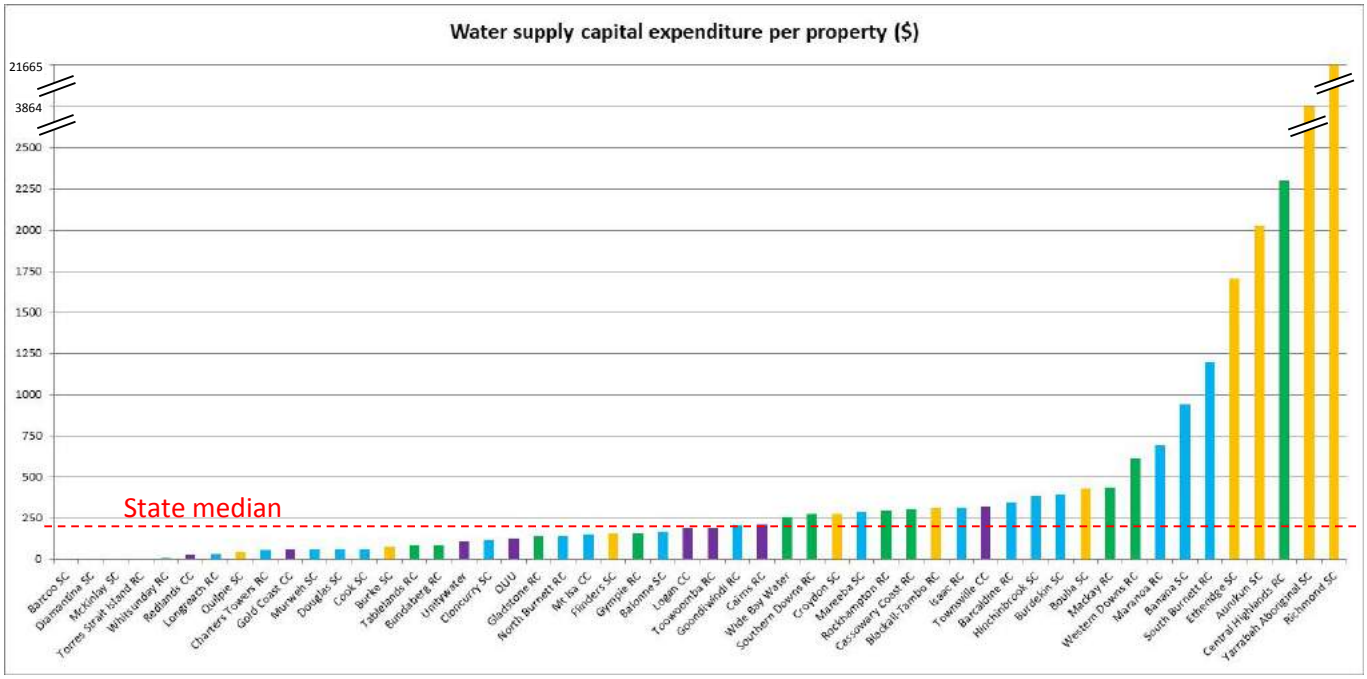

Figure 10. Water supply capital expenditure per property ($)[5].

Note: This figure shows ranked values of water supply capital expenditure per property ($) for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (orange), medium SP with between 1,000 and 9,999 connections (blue), large SP with between 10,000 and 50,000 connections (green), and extra-large SP with more than 50,000 connections (purple). The 2014/15 Statewide median value for water supply capital expenditure is $191 per property. Each bar represents one SP.

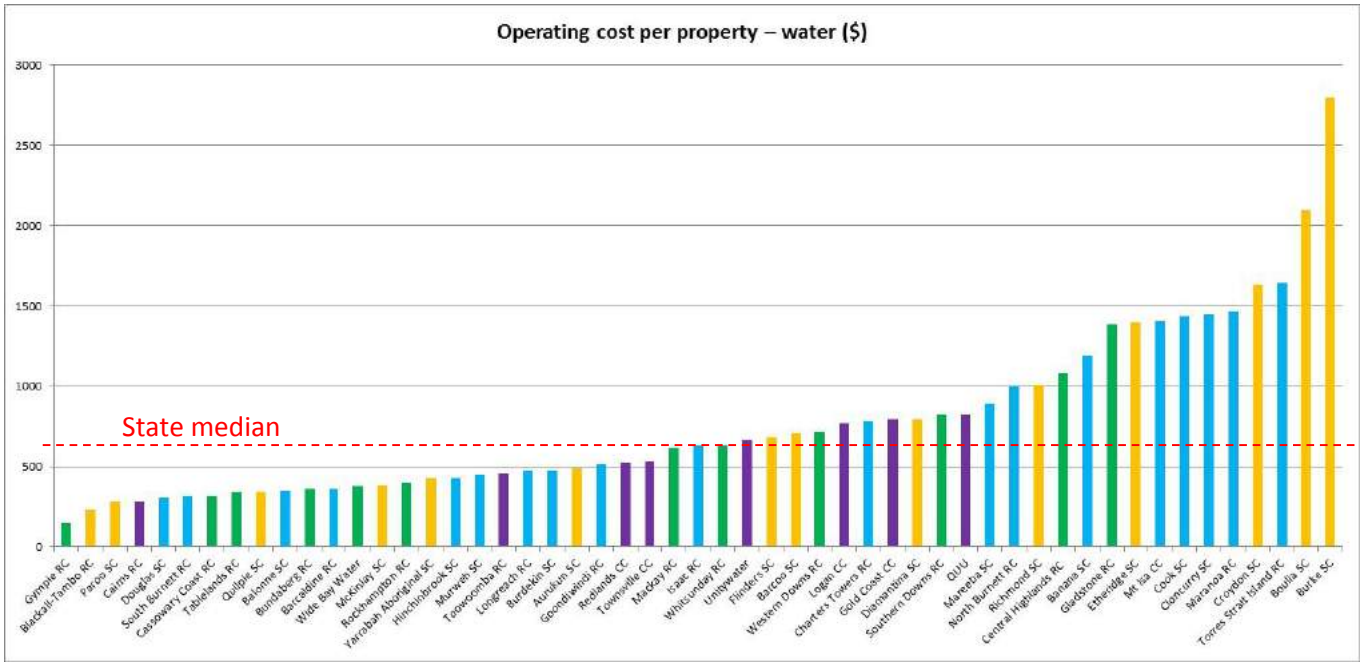

Figure 11. Operating costs per property – water ($)[6].

Note: This figure shows ranked values of operating costs per property – water ($) for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (orange), medium SP with between 1,000 and 9,999 connections (blue), large SP with between 10,000 and 50,000 connections (green), and extra-large SP with more than 50,000 connections (purple). The 2014/15 Statewide median value for operating costs – water is $631 per property. Each bar represents one SP.

[5] Note: figures for smaller SPs may be skewed towards higher values due to their very low populations.
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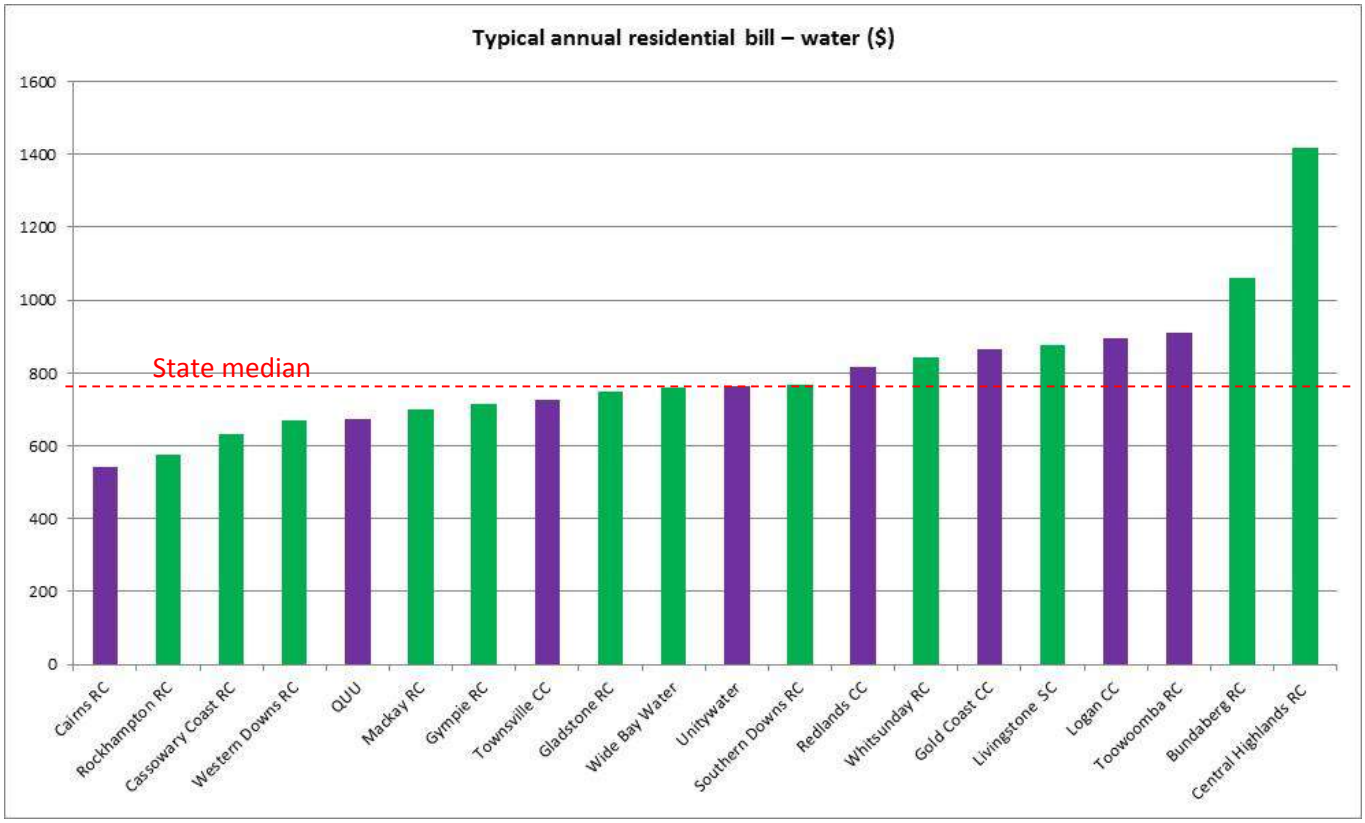

Figure 12. Typical annual residential bill – water ($).

Note: This figure shows ranked values of the typical annual residential bill – water ($) for each Service Provider (SP) with greater than 10,000 connections who reported in 2014/15 in 2 groups based on the number of connected properties served – large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the typical residential bill – water for these SPs is $762. Each bar represents one SP.

Economic real rate of return

The financial performance of most Service Providers is intricately linked with their owner councils, making it difficult to assess the financial performance of the water supply operations.

In addition, an important distinction must be made between the category of (usually larger) councils that can be categorised as financially sustainable and can generate dividends (return on capital) to support their communities, and the smaller and often more remote councils. In the latter, smaller populations (and thus rate bases) can mean that capital investment in water infrastructure is difficult and relies on funding assistance and subsidies from other sources of income. In some cases even operating costs can be difficult to meet.

One comparator of financial performance is the Economic Real Rate of Return (ERRR). The ERRR (water) is the revenue from water business operations less operating expenses for the water business divided by written down replacement cost of operational water assets. An appropriate value for ERRR is difficult to determine for Service Providers but should be at least positive with a margin to allow for return on capital (NWC and WSAA, 2010). OTTER (2011) suggested that an ERRR of around 7% was required for full cost recovery in the Tasmanian urban water industry while the Productivity Commission questioned the appropriateness of NWC and NSW Office of Water definitions of full cost recovery as an ERRR “greater than or equal to zero” (see PC, 2011, p. 386).

ERRR is now only reported for Service Providers with greater than 10,000 water connections. The Statewide median value for ERRR (water) for these Service Providers was 4.4.

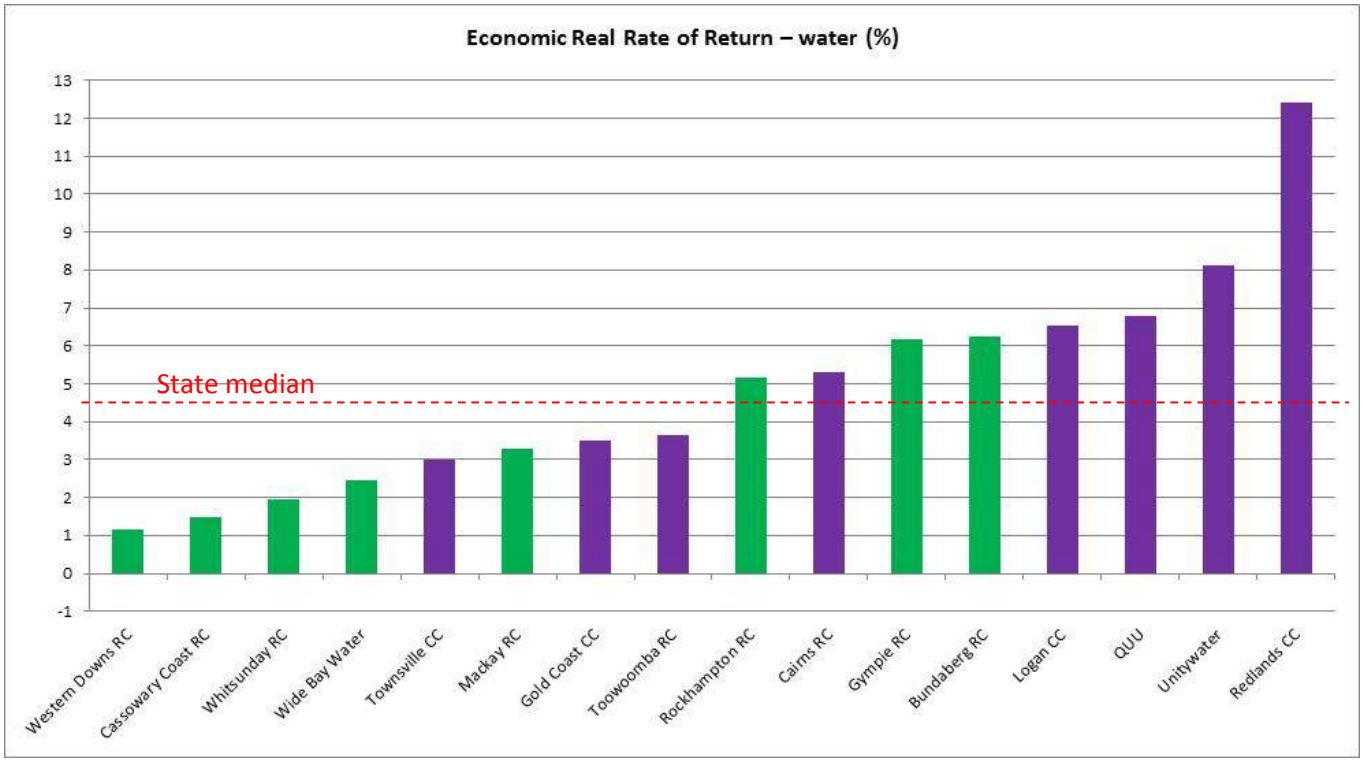

Figure 13. Economic Real Rate of Return (ERRR) – water (%).

Note: This figure shows ranked values of the ERRR – water (%) for each Service Provider (SP) with greater than 10,000 connections who reported in 2014/15 in 2 groups based on the number of connected properties served – large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the ERRR – water for these SPs is 4.4%. Each bar represents one SP.

Customer service

Water complaints

As discussed above, water and sewerage complaints are no longer required to be reported separately (or broken down into sub-categories like service, billing, etc.). Water and sewerage complaints (combined) is reported by Service Providers and is discussed within the sewerage services section of this report (see Fig. 6).

Response time to water incidents

The average response time to water incidents is a new indicator for this 2014/15 report. It has been reported previously but not since 2010/11. The Statewide median for the average response time for water incidents was 53 minutes but there is no 'ideal' response time as it varies depending on, the type of incident (e.g. emergencies should be treated faster than minor issues) and the distance to the area of concern. Response time to incidents is meant to provide an indication of customer service: no customer wants to be left waiting when they have a serious water or sewerage problem. Unfortunately, as with 'response times to sewerage incidents', there is no consistent interpretation of the definition, or more importantly, no guidance in the definition of which 'incidents' to include in the analysis. Therefore, comparisons among Service Providers are largely inappropriate.

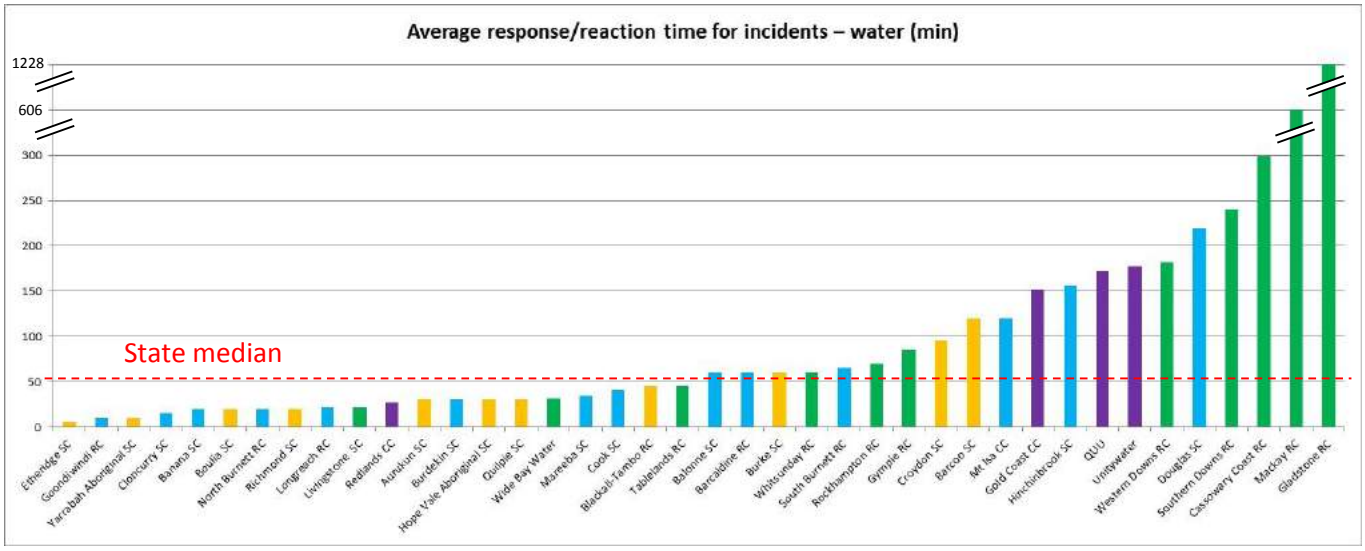

Figure 14. Average response/reaction time for incidents – water (min)[7].

Note: This figure shows ranked values for the average response/reaction time for incidents – water (min) for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (**orange**), medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the (average) response/reaction time for incidents (sewerage) is 53 minutes. Each bar represents one SP.

Condition of assets

Water main breaks

The Statewide median for the number of water main breaks that were recorded per 100 km of main during 2014/15 was 16.6. This indicator can provide a rough surrogate for the condition and age of water main infrastructure although data may include breaks caused by third parties (e.g. excavation).

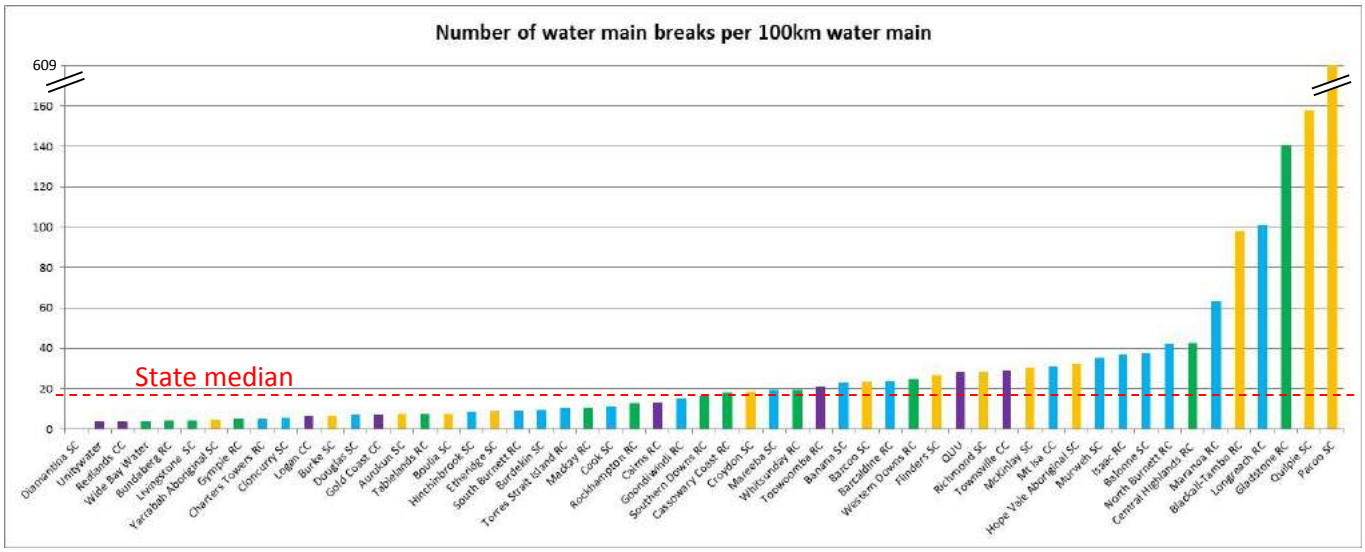

Figure 15. Number of water main breaks per 100 km of water main[8].

Note: This figure shows ranked values for the number of water main breaks per 100 km of water main for each Service Provider (SP) who reported in 2014/15 in 4 groups based on the number of connected properties served – small SP with less than 1,000 connections (**orange**), medium SP with between 1,000 and 9,999 connections (**blue**), large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for the number of water main breaks is 16.6 per 100 km of water main. Each bar represents one SP.

[7] Note: figures for smaller SPs may be skewed towards higher values due to their relatively short main lengths.
[8] Note: figures for smaller SPs may be skewed towards higher values due to their relatively short main lengths.

Real water losses

Real water losses is now only required to be reported by Service Providers with greater than 10,000 connections. The Statewide median for the amount of reported real water losses for these Service Providers for 2014/15 was 84 litres per service connection per day.

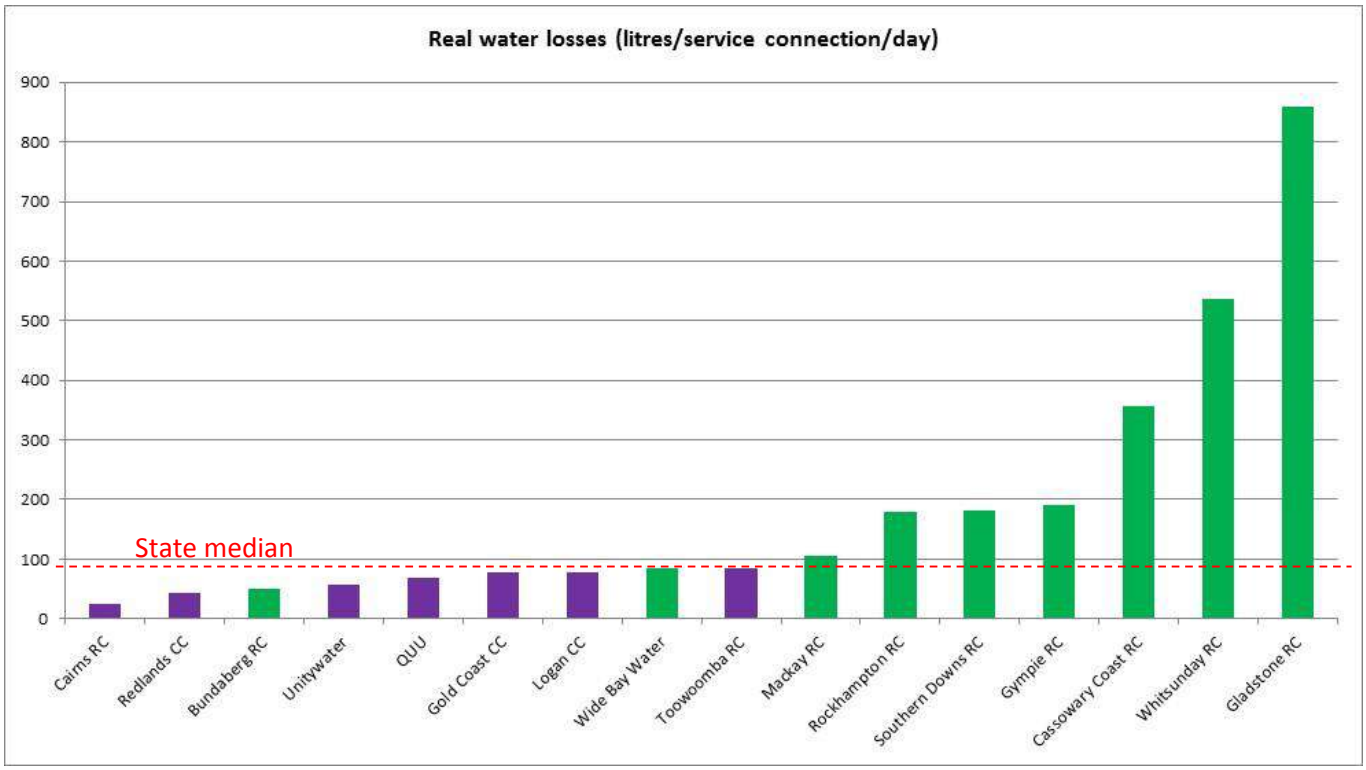

Figure 16. Real water losses (litres/service connection/day).

Note: This figure shows ranked values for real water losses (litres/service connection/day) for each Service Provider (SP) with greater than 10,000 connections who reported in 2014/15 in 2 groups based on the number of connected properties served – large SP with between 10,000 and 50,000 connections (**green**), and extra-large SP with more than 50,000 connections (**purple**). The 2014/15 Statewide median value for real water losses (litres/service connection/day) for these SPs is 84 litres per service connection per day. Each bar represents one SP.

References

NWC and WSAA (National Water Commission and Water Services Association of Australia). 2010. National Performance Report 2009-10: Urban Water Utilities, NWC, Canberra.

OTTER (Office of the Tasmanian Economic Regulator). 2011. Tasmanian Water and Sewerage State of the Industry Report 2009-10. Tasmanian Government, Hobart.

PC (Productivity Commission). 2011. Australia's Urban Water Sector, Report No. 55, Final Inquiry Report, Volume 1, Canberra.

Data used here was extracted from qldwater's SWIM database on 17/03/2016 as provided by Water Service Providers but qldwater and the WSP(s) involved offer no warranty as to its accuracy and are not liable for any loss or damage however caused, suffered or incurred by other parties in connection with the Data.