



Water performance report 2018-19

Performance of Victorian urban water and sewerage businesses

10 December 2019



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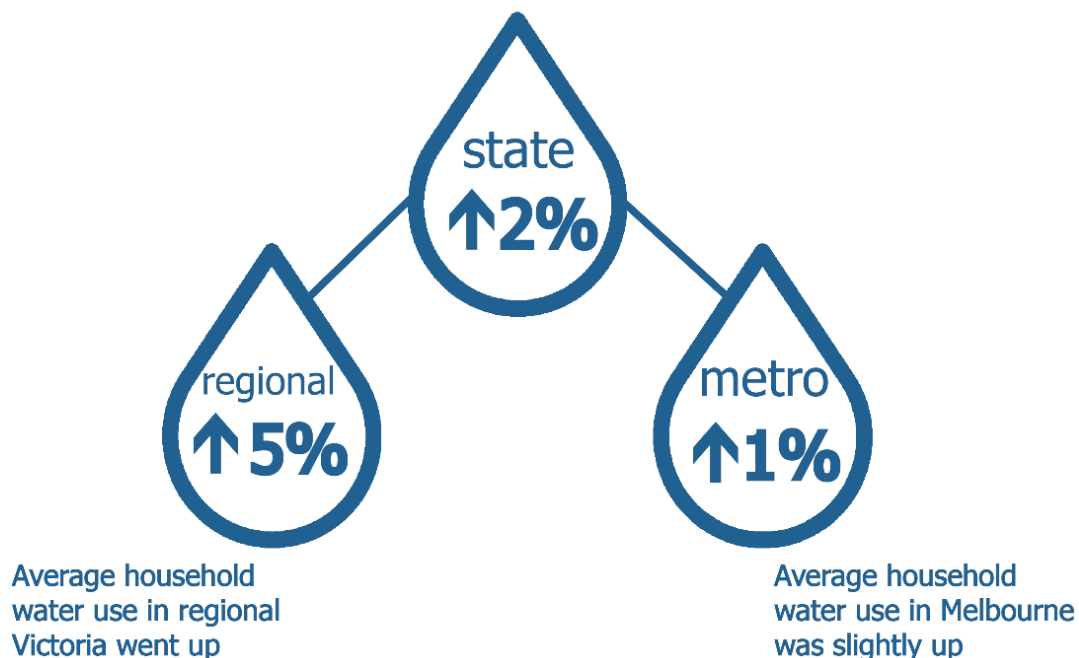
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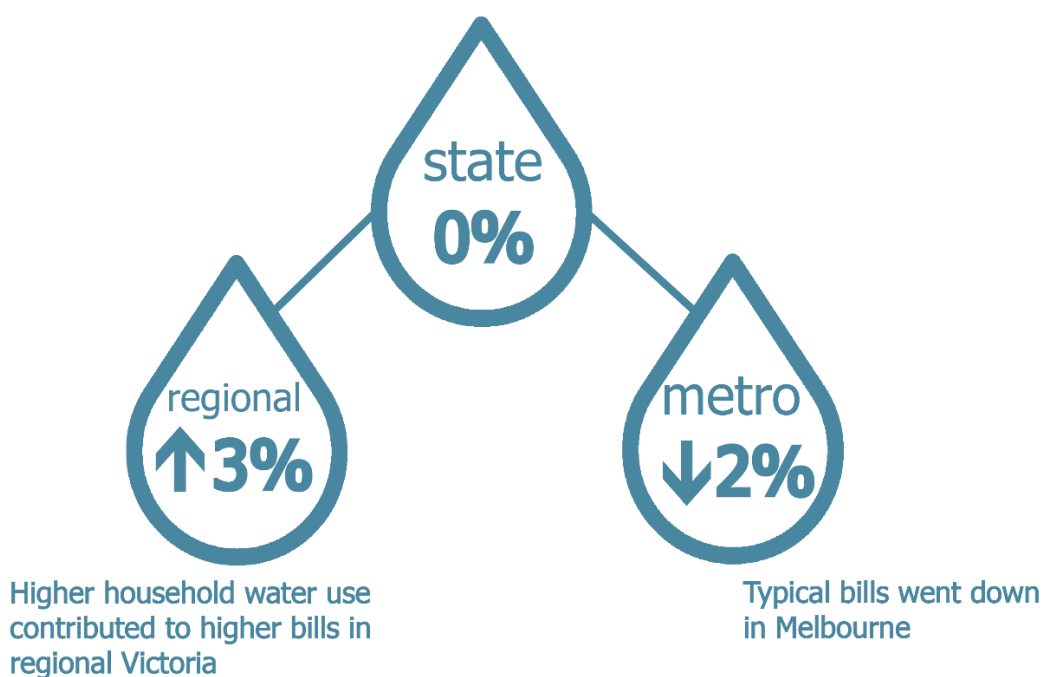


Key changes from 2017-18 to 2018-19

Water use went up across the state



Bills varied for owner occupiers from regional to metropolitan Victoria but stayed steady overall



More customers received hardship grants from their water business across the state to help pay their water bills



A total of 3,607 customers received hardship grants in regional Victoria

A total of 9,385 customers received hardship grants in Melbourne

More customers had their water restricted but fewer customers faced legal action for overdue debt statewide



A total of 5,148 residential customers had their water restricted for overdue debt.



A total of 188 residential customers faced legal action

What we found in 2018-19

Victoria's 16 urban water businesses operate across a range of geographic, environmental and social conditions. We report on the 2018-19 performance of the Victorian urban water sector, both as a whole and as individual businesses.

This report is one of the ways we report on the water sector and is part of a suite of reporting, which includes customer surveys¹ and our outcomes reporting², that is aimed at driving improvements in the water sector to ensure customers get better outcomes. This report focuses on providing stakeholders with information on how each water business compares on customer bills, household water use, and other key service measures. It is different to the tailored reporting each water business commits to under the commission's outcomes reporting framework.

In 2018-19, a typical Victorian residential water customer:

- **Used slightly more water.** Average household water use was up by about 2 per cent to 164 kilolitres after a similar increase in 2017-18. The increase was mainly due to higher usage in regional Victoria. The level of household water use reported by businesses is not unusual considering it was another warm year with lower than average rainfall³ and is comparable to previous years under similar weather conditions (this is discussed in more detail in Section 1.2).
- **Received similar bills to the previous year.** Across the state higher average water use and inflation contributed to slightly higher typical household bills for almost all water businesses. South East Water was the one exception with the annual bill falling for a typical customer. City West Water's customers received the lowest typical household bill (\$940) of the state. GWMWater reported the highest typical bill for the second year in a row (\$1,389), followed closely by Coliban Water (\$1,388) and Gippsland Water (\$1,352) (discussed in Section 1.3).

¹ "How customers rate their water business", *Essential Services Commission* (2018). <<https://www.esc.vic.gov.au/water/sector-performance-and-reporting/how-customers-rate-their-water-business>>, accessed 21 November 2019.

² "Outcomes reporting", *Essential Services Commission* (2018). <<https://www.esc.vic.gov.au/water/sector-performance-and-reporting/outcomes-reporting>>, access 21 November 2019.

³ "Victoria in summer 2018-19: warmest summer on record", *Australian Government Bureau of Meteorology* (2019). <http://www.bom.gov.au/climate/current/statement_archives.shtml?region=vic&period=season>, accessed 1 October 2019.



- **Received support if experiencing payment difficulties.** Customers continued to access a range of support programs offered by their water businesses and the Victorian Government. The number of hardship grants received by customers from their water business increased while the number of one-off grants from the Victorian Government went down slightly (discussed in Sections 1.6 and 1.7).
- **Received reliable water services and good customer service.** Water network reliability remained high and was at a similar level to previous years (discussed in Chapter 3). Customer service representatives demonstrated that they were skilful at resolving customer issues, scoring slightly higher this year on a benchmarking study for their customer service (discussed in Section 2.2).
- **Made more complaints to their water business, but fewer complaints to the Energy and Water Ombudsman (Victoria).** Customers made 15 per cent more complaints to water businesses. This increase was largely driven by Yarra Valley Water and City West Water who both received a spike of water quality complaints in February and March following source supply changes (discussed in Sections 2.4 and 2.5). There were 11 per cent fewer complaints made to the Energy and Water Ombudsman (Victoria)⁴, suggesting that businesses are doing a better job of resolving complaints that come to them directly.
- **Was more likely to have their water restricted for overdue debt (noting the increase is largely driven by one regional business).** The rate of water supply restrictions across the businesses was mixed, with about a third reporting increases and the remainder reporting decreases. Overall the rate increased, driven by Central Highlands Water who reported a rate that was more than six times the state average (discussed in Section 1.8).
- **Was less likely to have legal action taken against them for overdue debt.** The rate of legal action taken against a residential customer for unpaid debt has continued its five-year downward trend and is at its lowest point since 2004-05 (discussed in Section 1.8).

Overall, we consider Victoria's 2.8 million urban water customers continue to receive good service from their water businesses, despite considerable performance variation across various indicators due to diverse operational conditions.

⁴ "Reports", *Energy and Water Ombudsman (Victoria)* (2019). <<https://www.ewov.com.au/reports>>, accessed 21 November 2019.

Why we report on performance

Why performance reporting is important

This report covers specific key performance indicators of the 16 Victorian urban water businesses over a five-year period with attention given to businesses' performance in 2018-19. We compare these indicators for each business against each other and over time against their own previous performance. Rural water businesses are excluded from this report as well as the rural activities of GWMWater and Lower Murray Water, which provide both urban and rural services. Figure 1 shows the 16 urban water business boundaries and Melbourne Water.

The main purposes for reporting on performance are to:

- help guide discussions between water businesses and their customers about outcomes to be delivered and performance targets
- drive competition between water businesses to improve service standards
- inform the decision making processes of water businesses, regulatory agencies and the Victorian Government.

Figure 1: Victorian urban water businesses

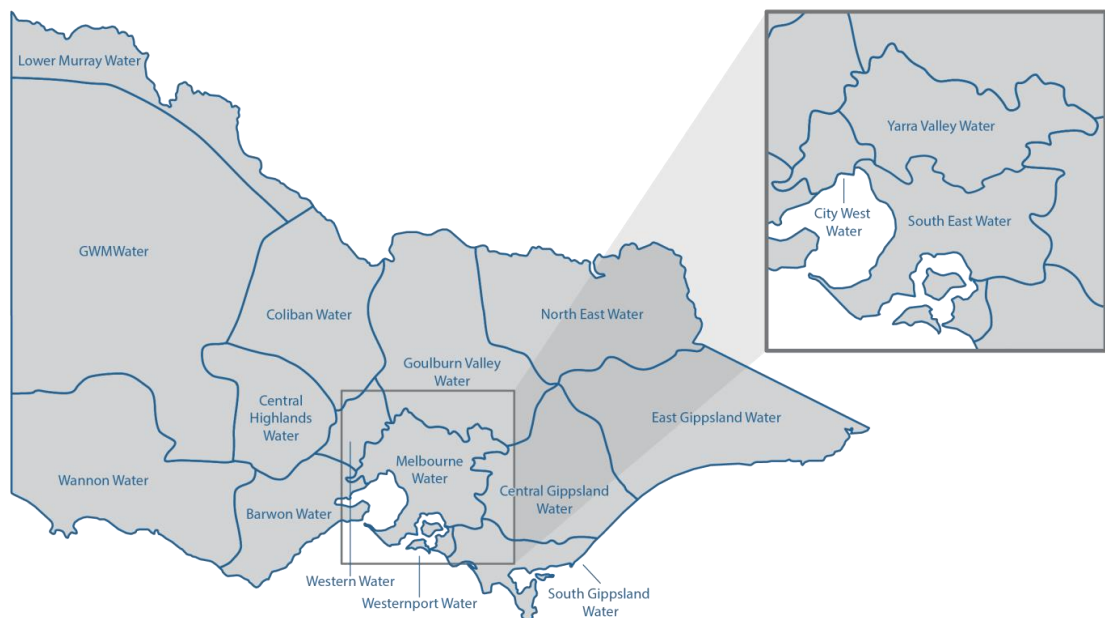


Table 1 shows the number of urban water and sewerage customers that each of the water businesses serviced in 2018-19, as well as the total numbers of customers in Melbourne, regional Victoria and statewide.

Table 1: Urban water and sewerage customers in 2018-19

	All water customers	Residential water customers	Non-residential water customers	Sewerage customers
City West	473,135	431,574	41,561	469,686
South East	778,018	717,091	60,927	751,488
Yarra Valley	821,734	764,589	57,145	764,990
Barwon	161,695	149,288	12,407	146,272
Central Highlands	71,054	65,338	5,716	61,156
Coliban	76,478	69,490	6,988	69,173
East Gippsland	24,128	21,179	2,949	20,090
Gippsland	70,906	64,861	6,045	63,600
Goulburn Valley	59,499	53,083	6,416	52,492
GWMWater	31,947	27,259	4,688	26,043
Lower Murray	34,040	30,175	3,865	29,612
North East	51,923	47,297	4,626	47,129
South Gippsland	20,692	17,493	3,199	18,257
Wannon	43,302	36,886	6,416	37,038
Western	68,031	64,786	3,245	62,005
Westernport	16,948	15,911	1,037	15,497
Metro total	2,072,887	1,913,254	159,633	1,986,164
Regional total	730,643	663,046	67,597	648,364
Statewide total	2,803,530	2,576,300	227,230	2,634,528

Our new pricing framework

In 2016, we released our new pricing framework (PREMO) for the Victorian water sector, which puts customers squarely at the centre of water businesses' considerations. We challenged businesses to better engage with their customers to understand what they value most and prepare price submissions which take these views into account.

The PREMO framework provides incentives for water businesses to provide greater value to customers and holds them accountable for delivering on their commitments. This year marks the first reporting year under the PREMO framework. As part of the 2018 water price review, water businesses established clear outcomes and performance targets, and have self-reported their achievements and the value they have delivered to their customers. We collated these self-reports into an annual outcomes report. The outcomes report for 2018-19 can be accessed on our website at <https://www.esc.vic.gov.au/water-outcomes-reporting>.

Because of this new line of reporting by the water businesses themselves, our performance reporting has changed and will continue to evolve as we monitor how the sector responds. For example, our performance reporting now no longer includes the chapter on water businesses' major capital projects. Instead this has been included in our outcomes reporting because we considered that major projects are closely aligned to businesses' commitments to their customers.

Businesses may use our performance reporting to guide discussions with their customers about service priorities and performance targets. Our performance report can also be used to inform our assessment of the businesses' self-reporting to customers about their own performance.

Our regulatory functions

We are the economic regulator of the Victorian water sector. One of our regulatory functions is to monitor and to report publicly on the performance of the Victorian Government-owned water businesses.

We are also responsible for regulating service standards and conditions of supply. However, we do not regulate or drive performance in the areas of water conservation, the environment and water quality, although some of these areas are covered in our report.

The Environment Protection Authority Victoria is responsible for regulating environmental standards, the Department of Environment, Land, Water and Planning is responsible for water conservation measures, and the Department of Health and Human Services is responsible for drinking water quality standards.

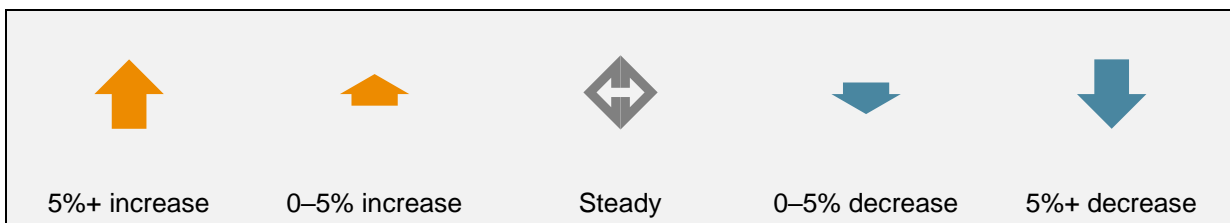
The data used in this report

This report is based on two principal sources of information:

- Performance data reported by the businesses against key performance indicators specified by us, and comments from the businesses explaining their performance.
- The findings of regulatory audits⁵ on the reliability of the performance indicator data reported by the businesses. Where data has not passed the audit requirements, it has been excluded from this report or qualified in our discussion.

We use snapshots alongside some indicators to highlight changes made at metropolitan Melbourne and regional Victoria level, and the state-wide trends. Depending on the indicator, an increase could be an improvement or deterioration in performance.

Snapshot symbol definitions



Access all of our 2018-19 water performance resources

Find all of our 2018-19 performance information at <https://www.esc.vic.gov.au/water-performance-reports>, including:

- this report comparing the performance of the 16 urban water businesses
- water business profiles that provide a snapshot of each business's performance
- a summary of the data behind our tables and charts in this report.

⁵ <https://www.esc.vic.gov.au/sites/default/files/documents/regulatory-auditing-framework-to-apply-for-victorian-water-businesses-guideline.pdf>

1. How much households use and pay for water

This chapter looks at the average water use of households and typical bills at the average water usage level across Victoria.

The bill estimates in this chapter reflect prices charged by water businesses in the year from 1 July 2018 to 30 June 2019.

We also discuss how some customers are paying their bills. Government support and water business assistance programs are available where customers are experiencing payment difficulties. If bills remain unpaid, customers may face water supply restrictions or legal action.

1.1. 2018-19 at a glance

Household water use increased by about 2 per cent across the state to 164 kilolitres. This follows another 2 per cent increase in 2017-18 and coincides with continued below average rainfall and the warmest summer on record.

Annual bills dropped by about 2 per cent for owner occupiers in Melbourne to \$1,000. Annual bills also dropped by 2 per cent for tenants in Melbourne to \$454. In contrast, bills rose in regional Victoria by 3 per cent for owner occupiers to \$1,142 and 7 per cent for tenants to \$494 due to increased water use and inflation.

Fewer customers received grant assistance from the Victorian Government to help with one-off bill payments compared to 2017-18.

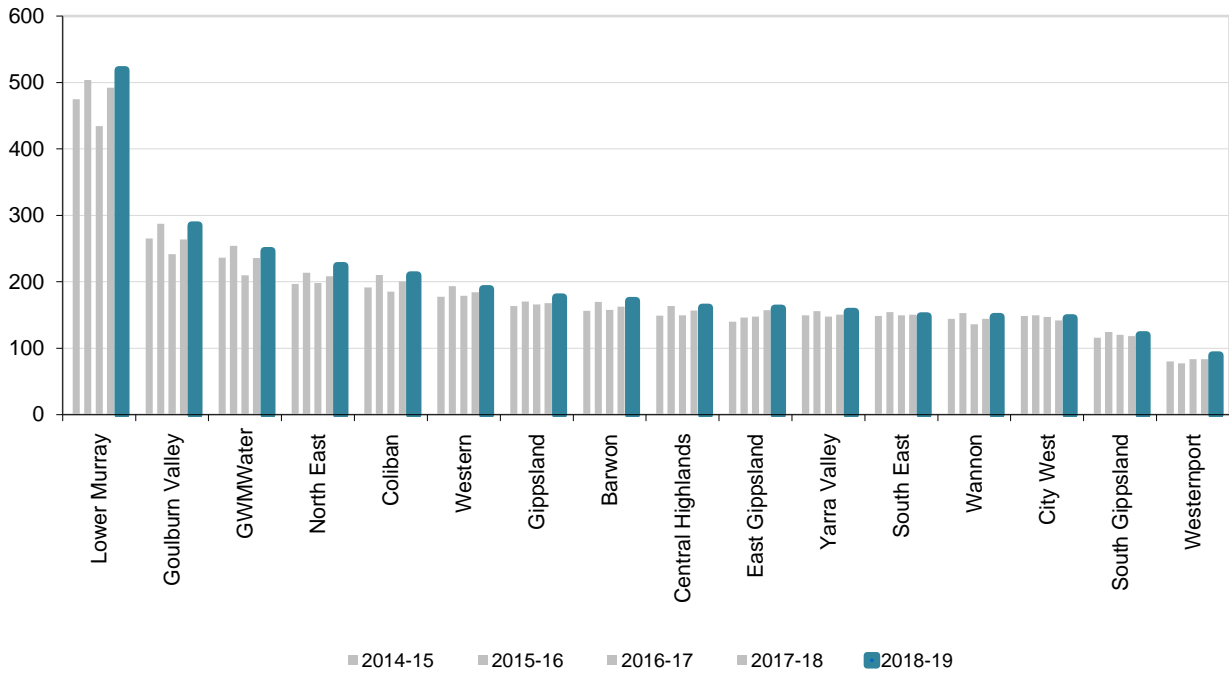
Water businesses awarded more hardship grants to customers, but the value of grants decreased statewide down to \$242 compared to \$249 the previous year.

Slightly more customers faced water supply restrictions for unpaid debt (driven mainly by one water business), however 78 fewer customers faced legal action. Average debt level at the time of legal action decreased by 3 per cent across the state.

1.2. Average household water use

Water use varies around the state due to different climates, household demographics, property sizes, and any water restrictions that may be in place. Figure 2 shows the average annual household water use across the five-year review period measured in kilolitres.

Figure 2: Average household use (in kilolitres per household)



Snapshot (average household water use, kilolitres)

State-wide average		2.2%	Metro average		1.1%	Regional average		4.8%
2018-19	164	↑	2018-19	150	↑	2018-19	203	↑
2017-18	160		2017-18	148		2017-18	194	

Key observations

- Average annual household water use across Victoria rose by 2 per cent in 2018-19, to 164 kilolitres, reflecting another warmer and drier than average year with the summer of 2018-19 being the warmest on record.⁶⁷⁸ Under these hotter and drier conditions this usage level is not unusual and is consistent with past years that have had similar weather conditions.
- Average annual household water use increased by 5 per cent in regional Victoria. The largest increases were recorded by Goulburn Valley Water (with an 8 per cent increase), North East Water (with a 7 per cent increase) and Westernport Water (with a 7 per cent increase, although it continues to report the lowest average water use in the state).
- Lower Murray Water reported a 5 per cent increase and continues to report the highest water usage across the state.
- In metropolitan Melbourne, average annual household water use increased slightly by 1 per cent. City West Water and Yarra Valley Water both recorded a 3 per cent increase, while South East Water recorded a 2 per cent decrease.
- Across both regional and metropolitan water businesses, South East Water was the only business to record a fall (2 per cent) in annual average household water use.

⁶ Average statewide water use is reported on a weighted basis, where the weighted average reflects the size of each water business and its relative contribution to the overall average.

⁷ "Climate summaries archive", *Australian Government Bureau of Meteorology* (2019). <http://www.bom.gov.au/climate/current/statement_archives.shtml?region=vic&period=season>, accessed 14 October 2019.

⁸ "Victoria in summer 2018-19: warmest summer on record", *Australian Government Bureau of Meteorology* (2019). <http://www.bom.gov.au/climate/current/statement_archives.shtml?region=vic&period=season>, accessed 1 October 2019.



Average household water usage (kL)



Putting this year's two per cent rise in average household water usage in context, Victoria's average household water usage remains well down on levels in the mid 2000's. In recent years, average household water use in metropolitan Melbourne has remained relatively steady at around 150 kilolitres per year. Average annual household water use in regional Victoria has fluctuated more markedly, increasing in recent years. This is mainly due to consumption patterns in the north and west of the state, particularly for Lower Murray Water.

1.3. Typical household bills

Household bills across Victoria vary due to the cost to service different regions, sources of water, historical decisions about tariff structures and the average volume of water used.

Bills are a combination of how much water is used, prices for fixed-and variable-rate charges, and other charges. Owner occupier households pay both fixed and variable charges for their bills. Landlords pay the fixed charges for their property and the tenants only pay the variable charges. Only metropolitan Melbourne households have a variable sewerage charge. Note that although metropolitan businesses include waterways and drainage or parks charges in their bills on behalf of Melbourne Water, we do not include these charges in our calculations of the typical bills.

Figures 3 to 5 show typical bills for owner occupiers across five years and Figures 6 to 8 show typical bills for tenants across five years.

How typical bills are calculated

Typical household bills shown for each year are in that year's dollars. We use each business's average household usage (Figure 2) to calculate an indicative household bill for water and sewerage services. This includes both the fixed and variable water and sewerage charges, and any applicable rebate.⁹

For regional businesses with multiple pricing zones, we used the prices in the largest town to calculate that business's typical household bill.

Some water businesses previously applied a rebate to residential bills. For many water users, this rebate was shown as an annual credit on water bills. Following the 2018 price review this rebate has either not applied or is being phased out.

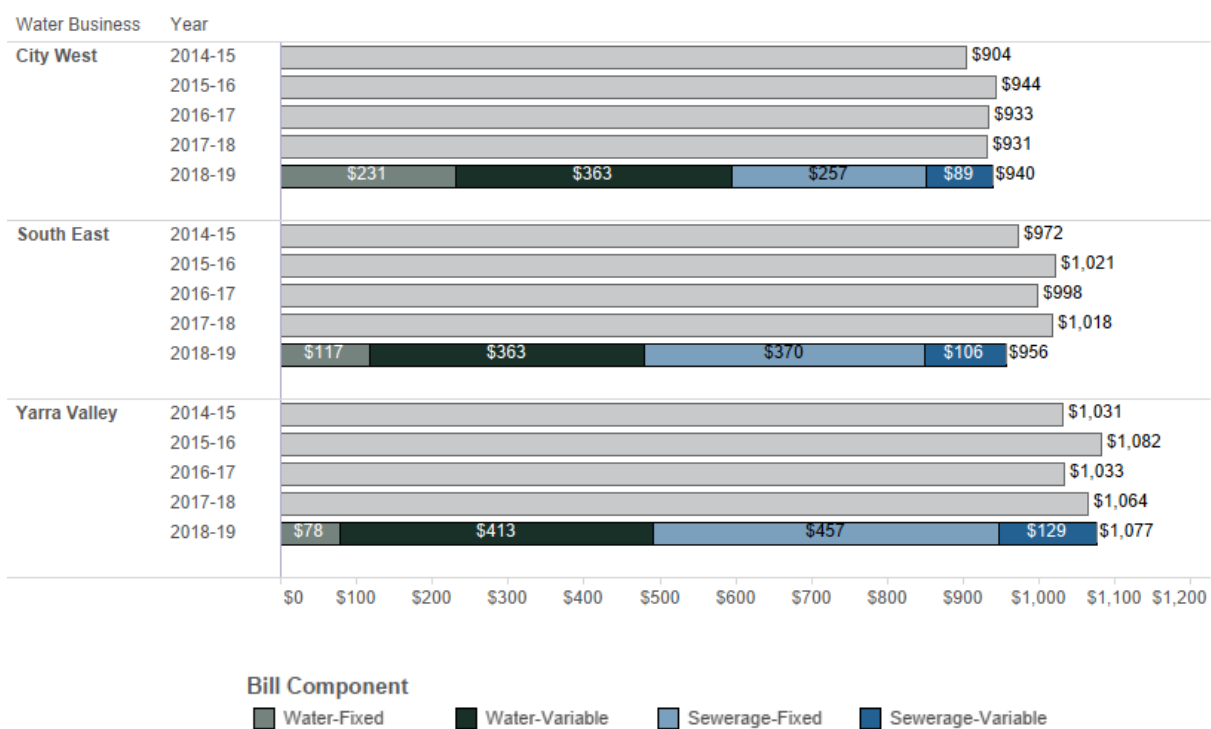
⁹ For consistency in comparison, we have excluded the metropolitan drainage charges for Melbourne Water and the metropolitan parks charges set by the Minister for Water, collected on their behalf by the metropolitan water businesses via water bills. These charges are not directly levied by these water businesses and are not part of their revenue stream.

Want more information?

We have an interactive bill estimator available at www.esc.vic.gov.au/water/information-water-consumers, where an indicative bill can be calculated for any annual water usage, and compared across all water businesses.

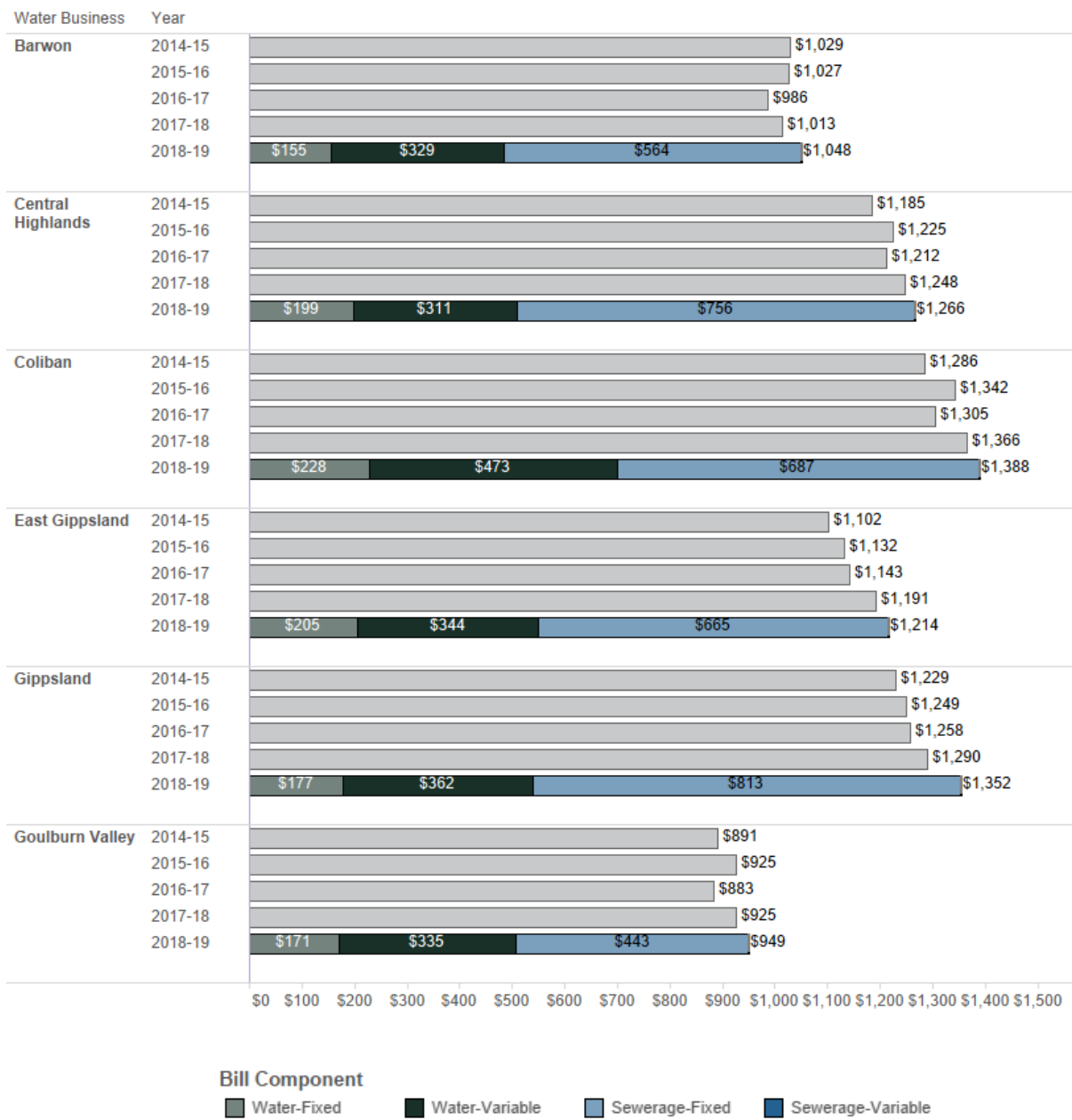
Our website also explains some key terms for understanding bills, and describes how we regulate prices, visit www.esc.vic.gov.au/water/water-prices-tariffs-and-special-drainage/

Figure 3: Typical household bills including inflation, metro owner occupiers



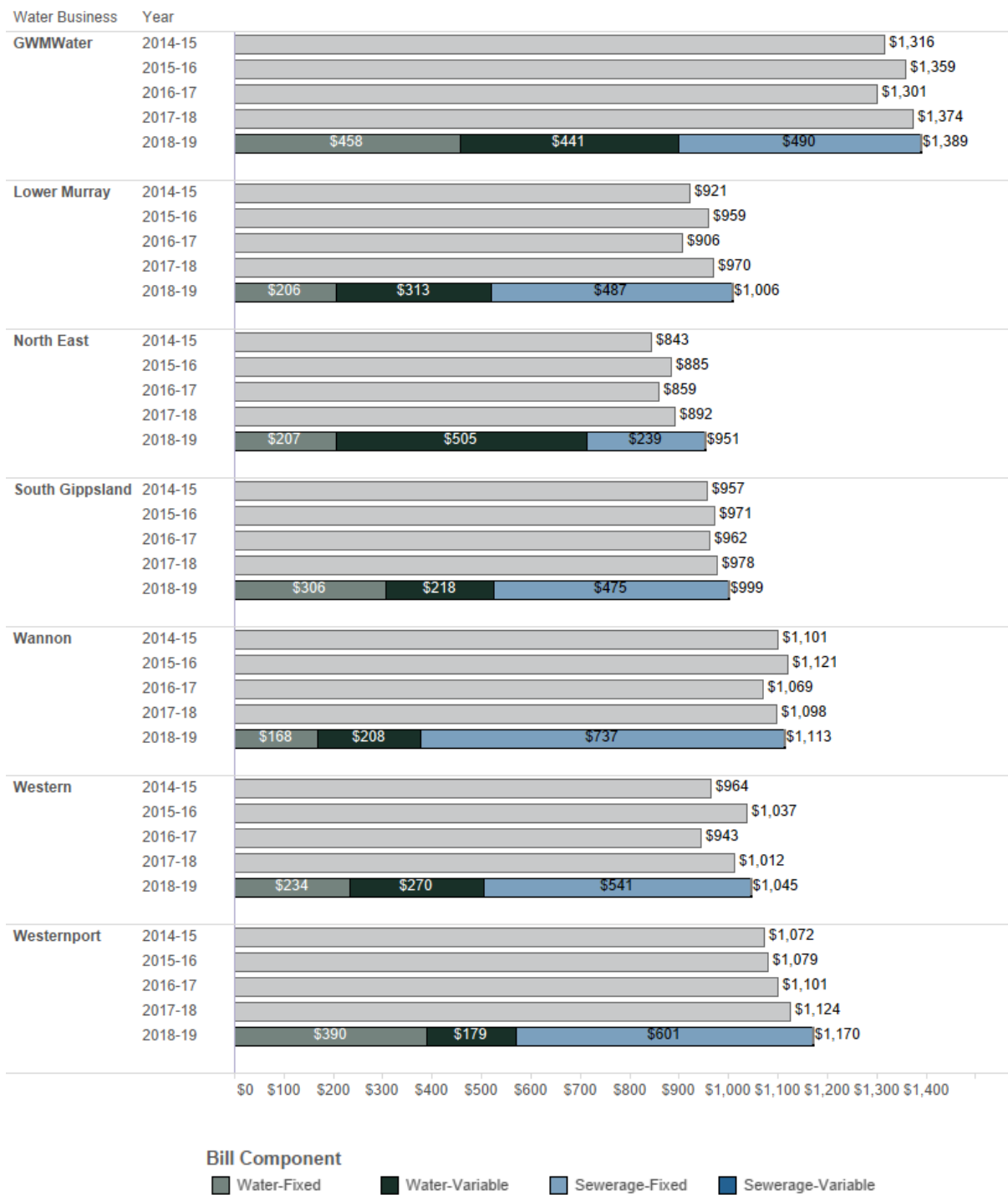
How much households use and pay for water

Figure 4: Typical household bills including inflation, regional owner occupiers, part I



How much households use and pay for water

Figure 5: Typical household bills including inflation, regional owner occupiers, part II



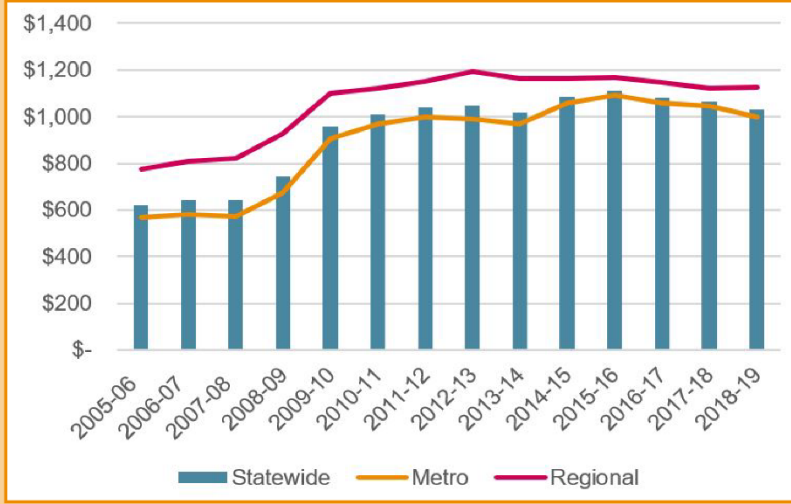
How much households use and pay for water

Key observations

- South East Water's customers had the only fall in their typical bill, underpinned by an initial price drop for the first year of the 2018–23 pricing period which will remain flat (not including inflation) for the remaining years of the pricing period.
- All other water businesses reported a small increase. When taking into account higher water use and inflation, typical bills for most water businesses' customers have gone down reflecting the price determinations that came into effect on 1 July 2018 and which for most businesses were about the same or lower than those that applied in 2017-18.
 - The typical bill for owner occupiers in metropolitan Melbourne decreased slightly by about 2 per cent. When adjusting for inflation and water usage the typical bill decreased by about 4 per cent.
 - In regional Victoria the typical bill rose by 3 per cent, largely reflecting higher water use and inflation.
- City West Water's customers received the lowest typical household bill (\$940) of the state.
- GWMWater customers received the highest typical bill for the second year in a row (\$1,389), followed closely by Coliban Water (\$1,388) and Gippsland Water (\$1,352).
- North East Water recorded the largest increase in typical bills (7 per cent), up from \$892 (the lowest typical bill in 2017-18) to \$951. However, this increase is in line with its customers' higher average water use, which increased by 7 per cent.



Owner occupier typical bills (real \$2018-19)



*Calculated using the weighted average annual household consumption of each region

This chart shows the trend in typical bills excluding inflation and holding consumption constant. It provides a long term view of price changes and impacts on customer bills. Typical bills for both metropolitan and regional customers increased during the height of the millennium drought in 2009-10, with prices rising to allow businesses to recover costs of expansion of water supply infrastructure. Since then, bills have remained steady across the state, dipping slightly in recent years.

Figure 6: Typical household bill including inflation, metro tenants

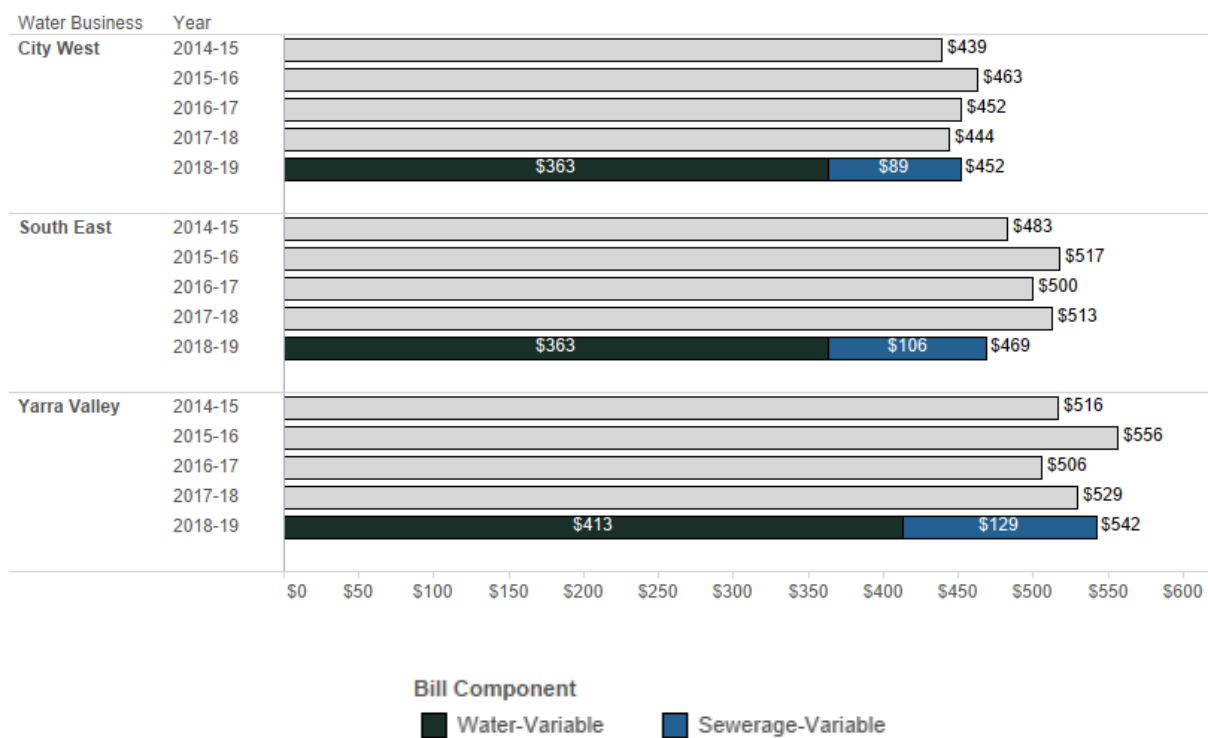
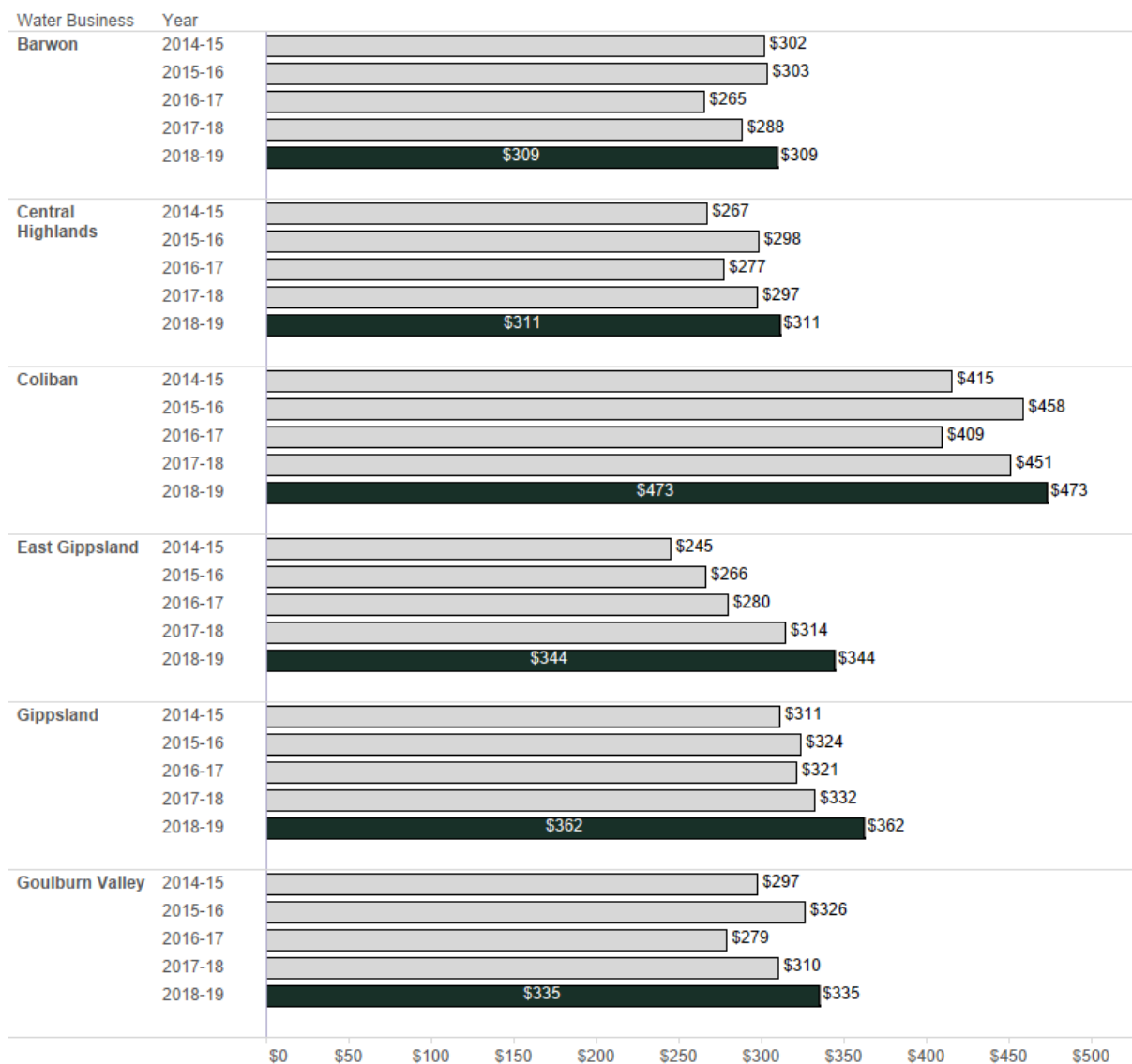
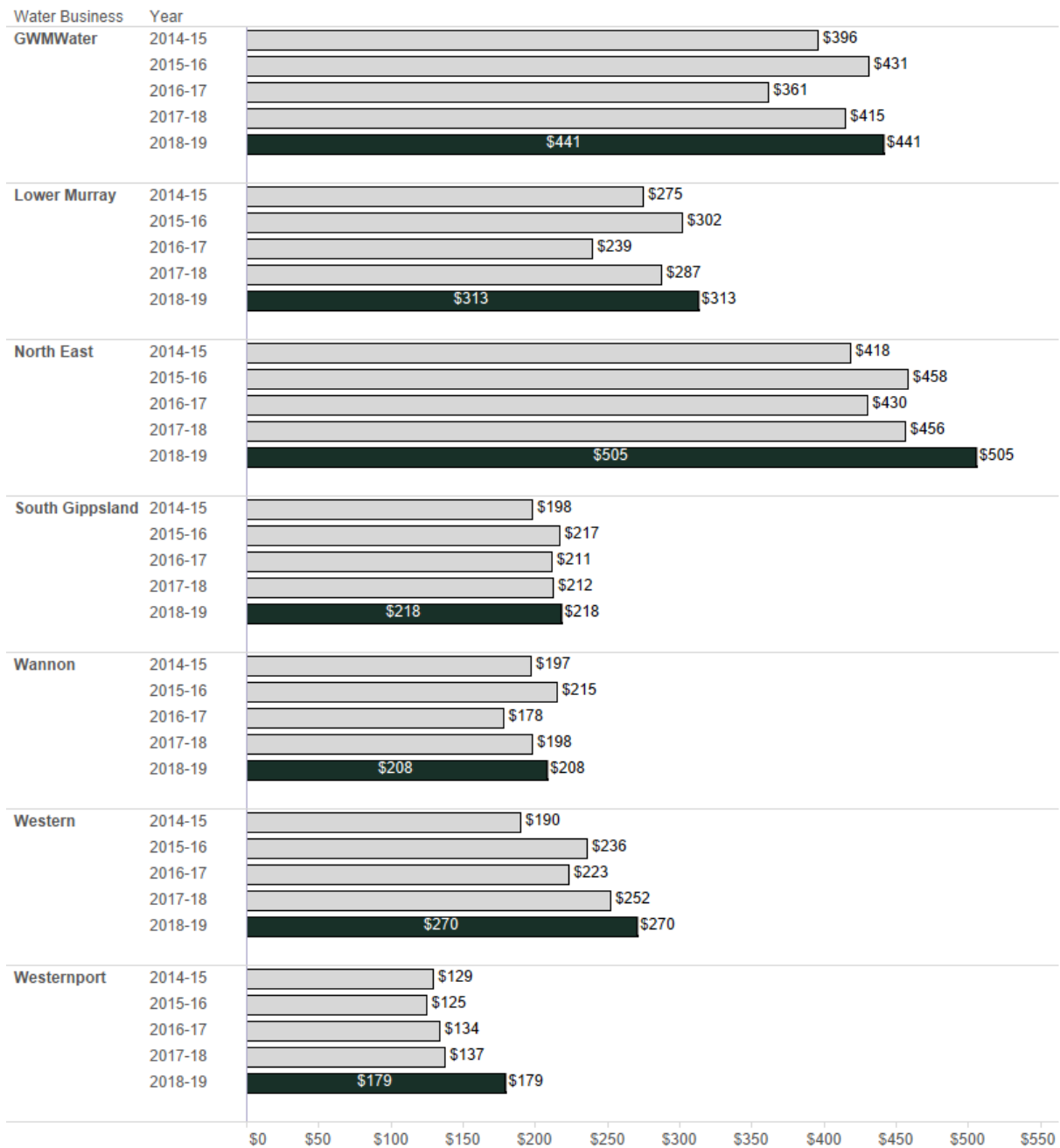


Figure 7: Typical household bill including inflation, regional tenants, part I



How much households use and pay for water

Figure 8: Typical household bills including inflation, regional tenants, part II



How much households use and pay for water

Key observations

- Except for South East Water, all other water businesses recorded an increase in tenants' typical household bills in 2018-19, mostly reflecting higher water use and inflation. When allowing for increased water use and inflation the typical bill for tenants across the state decreased by about 5 per cent.
- In metropolitan Melbourne the typical bill decreased by 2 per cent and by 5 per cent when adjusting for inflation and water use.
- In regional Victoria the typical bill rose by 7 per cent (about \$25). This increase was largely driven by higher average water use which was about 5 per cent higher compared to the previous year. Another contributing factor was due to Barwon Water, East Gippsland Water, Gippsland Water and Wannon Water either phasing out or removing the Victorian government's water efficiency rebate that had been applied to previous years' water bills.
- Westernport Water recorded the largest increase in typical bills due to removing the efficiency rebate worth around \$31. Despite this Westernport Water continued to report the lowest typical bill at \$179, reflecting its considerably lower average household water use compared to the other water businesses.
- In regional Victorian North East Water reported the highest typical bill at \$505 and across all water businesses Yarra Valley Water reported the highest at \$542. For both businesses this coincides with higher average water use.

1.4. Concession customers

Twenty-seven per cent of residential customers have a concession applied to their water bills.¹⁰ The Victorian Government, through the Department of Health and Human Services, provides concessions to assist low income households with water and sewerage bills at their principal place of residence. In 2018-19, \$170.7 million was contributed as concessions to residential water bills. The number of concession households decreased by 3,887 (0.57 per cent), from 687,902 in 2017-18 to 684,015 in 2018-19.

Customers holding a concession card can contact their water business to apply for a concession. Concessions may be applied retrospectively.

¹⁰ Concession data sourced from the Department of Health and Human Services.

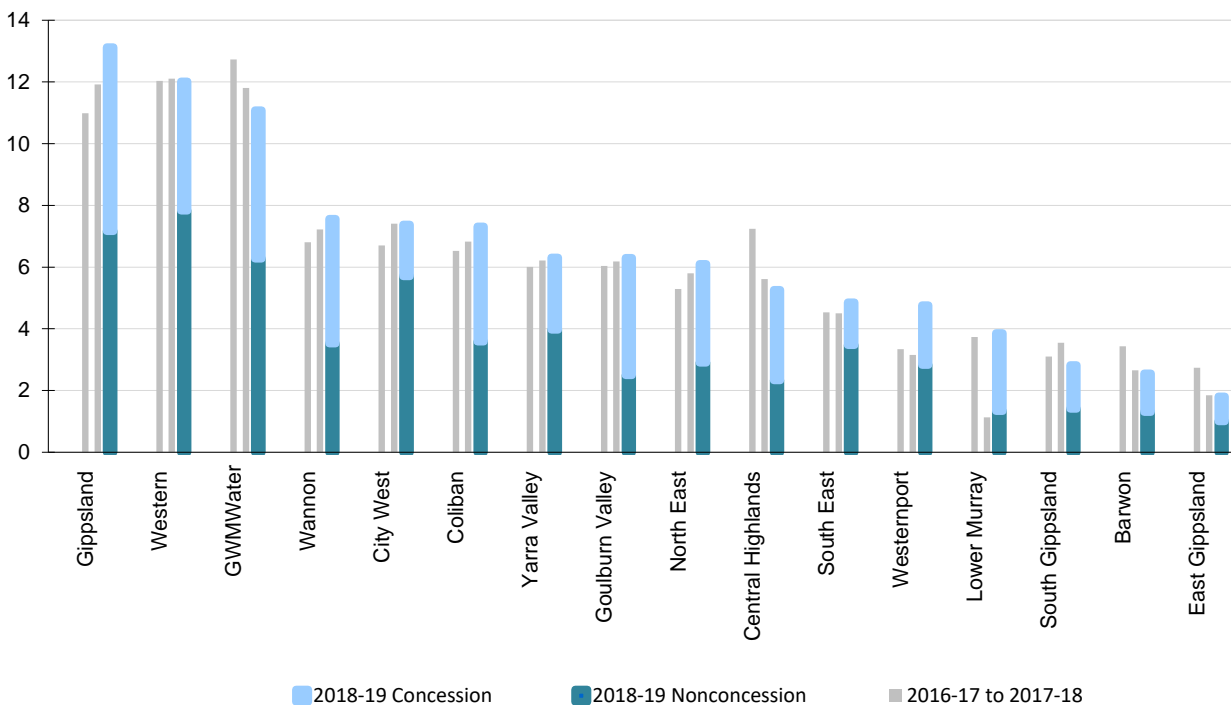
1.5. Customers on flexible payment plans

Instalment plans are alternative payment arrangements offered by water businesses to provide flexibility for customers in managing their bill payments and to assist those experiencing payment difficulties. Payment arrangements may include giving customers the ability to pay off their bill in monthly instalments.




From 2016-17, this performance indicator changed from number of customers entering instalment plans in a 12 month period to the number of customers on instalment plans at a point in time. Some businesses may have customers on several short-term instalment plans within a year, while others may have their customers on longer instalment plans. We consider that a snapshot measure enables a better comparison between water businesses.

Figure 9 shows the number of customers on instalment plans per 100 customers as recorded on 30 June 2019 and split between the proportion of concession customers (light blue) and non-concession customers (dark blue).

Figure 9: Residential customers with instalment plans per 100 customers (at 30 June 2019)



Snapshot (residential instalment plans per 100 customers)

State-wide Average			Metro Average			Regional Average		
		3.2%			2.8%			4.3%
2018-19	6.1		2018-19	6.0		2018-19	6.6	
2017-18	6.0		2017-18	5.8		2017-18	6.3	

Key observations

- The total number of residential customers on instalment plans at the end of 2018-19 increased from 149,806 at the end of 2017-18 to 158,275. The overall rate of residential customers on instalment plans increased slightly to 6.1 per 100 customers from 6 in 2017-18.
- Most businesses reported a small increase in the number of customers on instalment plans. The use of instalment plans for residential customers ranged from 1.8 per 100 customers for East Gippsland Water to 13.1 per 100 customers for Gippsland Water.
- Lower Murray Water more than doubled its rate of customers on instalment plans, returning to previous levels after a sharp drop in 2017-18.
- Westernport Water reported a 51 per cent increase, attributing this to a dedicated resource for identifying customers experiencing hardship.

- South Gippsland Water recorded a 20 per cent decrease in the rate of customers on instalment plans. This equates to 116 fewer customers on instalment plans in 2018-19 compared to the previous year. South Gippsland Water thought that this might be due to changing its customer information system and adopting a more accurate reporting methodology this year.

1.6. Government-funded grants scheme

The Department of Health and Human Services administers the utility relief grants scheme, which provides one-off financial contributions towards a bill of a customer experiencing payment difficulties. The grant payment is generally used to assist with a short-term financial crisis. It is different from the hardship programs provided by the water businesses to customers who experience ongoing financial hardship. Table 2 provides information relating to the number of customers that have received a utility relief grant in 2018-19.

Water businesses must assist customers experiencing payment difficulties on a case-by-case basis by appropriately referring customers to government funded assistance programs or to an independent financial counsellor. This includes helping eligible customers apply to the Department of Health and Human Services for a utility relief grant.

Table 2: Utility relief grant scheme in 2018-19 (residential customers)

	Number of grants approved	Percentage of grants initiated that are approved	Average value of grant paid	Grants approved per 100 customers
City West	725	49%	\$528	0.2
South East	1,864	46%	\$562	0.3
Yarra Valley	2,512	56%	\$540	0.3
Barwon	223	49%	\$460	0.1
Central Highlands	297	76%	\$508	0.5
Coliban	355	77%	\$537	0.5
East Gippsland	79	68%	\$568	0.4
Gippsland	242	74%	\$501	0.4
Goulburn Valley	275	67%	\$457	0.5
GWMWater	64	42%	\$529	0.2
Lower Murray	36	46%	\$543	0.1
North East	193	55%	\$449	0.4
South Gippsland	25	58%	\$570	0.1
Wannon	175	72%	\$538	0.5
Western	277	76%	\$565	0.4
Westernport	37	48%	\$572	0.2
Statewide	7,379	55%	\$535	0.3

Source: Department of Health and Human Services

Percentage of customers refers to the number of grants approved per the relevant water business's own residential customer base.

Key observations

- The number of grants approved by the Department of Health and Human Services decreased by 4.3 per cent from 7,714 in 2017-18 to 7,379 in 2018-19, while the proportion of customers receiving grants remained at around 0.3 per cent.
- The average value of grants across the state was \$535, ranging from \$449 for North East Water customers to \$572 for Westernport Water customers. More than a third of all grant payments went to Yarra Valley Water customers, with a total of \$1.36 million paid across 2,512 customers reflecting Yarra Valley Water's larger customer base.

- The overall percentage of grants approved state-wide out of the number of grant applications that were initiated remained at 55 per cent.
- Coliban Water reported the highest percentage of grant applications being approved (77 per cent), however this is a relatively large decrease from 2017-18 when 100 per cent of all grant applications were approved.
- Central Highlands Water, Coliban Water, Goulburn Valley Water and Wannon Water reported the highest rate of grant uptake for a second year in a row, all at 0.5 per cent of customers, while Lower Murray Water, Barwon Water and South Gippsland Water reported the lowest rate, all at 0.1 per cent.

1.7. Water business hardship grants

Hardship grants are another approach used by water businesses to assist customers experiencing payment difficulties. These often take the form of co-payment schemes, where the water business will waive a periodic payment if the customer meets a set number of scheduled payments, with the waived payment counted as a hardship grant. Table 3 provides information about the number and value of hardship grants received by customers from each water business in 2018-19.

Table 3: Hardship grants (residential customers, excluding inflation)

	Average value of a customer grant, 2018-19	Average value of a customer grant, 2017-18	Per 100 customers, 2018-19	Per 100 customers, 2017-18
City West	\$656	\$677	0.14	0.12
South East	\$463	\$509	0.10	0.07
Yarra Valley	\$209	\$221	1.05	0.98
Barwon	\$75	\$78	1.06	0.87
Central Highlands	\$289	\$437	0.13	0.17
Coliban	\$286	\$263	0.74	0.39
East Gippsland	\$152	\$165	1.01	1.25
Gippsland	\$166	\$142	0.27	0.16
Goulburn Valley	\$108	\$274	0.32	1.13
GWMWater	\$35	\$5	0.26	0.56
Lower Murray	\$0	\$0	0.00	0.00
North East	\$566	\$639	0.24	0.20
South Gippsland	\$1,000	\$0	0.01	0.00
Wannon	\$295	\$230	0.50	0.40
Western	\$508	\$486	0.72	0.64
Westernport	\$160	\$65	0.19	0.38
Statewide	\$242	\$249	0.50	0.46

Snapshot (hardship grants approved per 100 customers)

State-wide average		7.6%	Metro average		9.6%	Regional average		2.6%
2018-19	0.50	↑	2018-19	0.49	↑	2018-19	0.54	↑
2017-18	0.47		2017-18	0.45		2017-18	0.53	

Key observations

- Across the state, water businesses approved hardship grants for a total of 12,992 customers in 2018-19, representing 0.5 customers receiving grants per 100 customers. This is about an 8 per cent increase in grants received per 100 customers compared to the previous year.
- Melbourne water businesses reported a 10 per cent increase in the rate of approved hardship grants and regional Victoria reported a 3 per cent increase, while the average value of grants dropped 3 per cent across the state.
- Barwon Water recorded the highest rate of approved hardship grants with 1.06 grants received per 100 customers, followed closely by Yarra Valley Water with 1.05 per 100 customers.
- Coliban Water reported significantly higher hardship grants, with an increase of 247 grants after a drop in 2017-18. Coliban Water explained that the drop was due to limited resources and fewer customers submitting applications. Coliban Water advised that the increase above historical levels this year was due to the introduction of its plumber assist program (a government funded program) that has provided additional hardship assistance to customers above the level of government funding.
- Goulburn Valley Water and GWMWater reported the greatest decreases in the rates of hardship grants approved compared to the previous year.
 - Goulburn Valley Water explained the decrease was due to a difference in reporting, where in previous years it had included leak adjustment claims that have since been removed.
 - GWMWater advised that the observed decrease was due to a decline in the number of customers returning hardship grant applications.
- The average value of hardship grants across businesses ranged from \$35 (GWMWater) to \$1000 (South Gippsland Water who awarded only one hardship grant in 2018-19), with an overall average of \$242 — a decrease of 3 per cent from 2017-18. Consistent with previous years Lower Murray Water has not award any hardship grants.

1.8. Actions for non-payment of bills

Water legislation allows water businesses to limit the water flowrate to non-paying customers by inserting a restriction device in the customer's water supply line. Water businesses may also take legal action against customers to recover unpaid debt.

Water businesses must assist customers experiencing payment difficulties on a case-by-case basis by:

- observing minimum periods of notice before applying supply restrictions or pursuing legal action to recover outstanding debts
- not restricting water supply of a customer or pursuing legal action before first taking additional steps to secure payment, including making a reasonable attempt to contact the person, offering a payment arrangement and resolving any dispute over the outstanding amount.

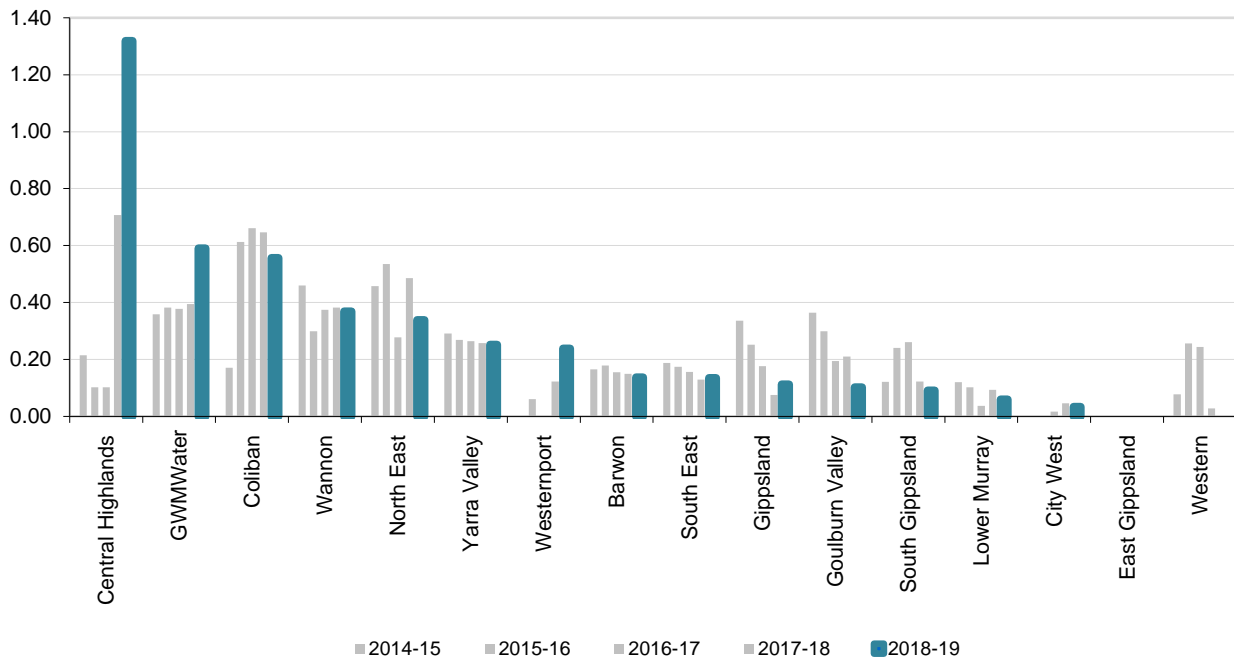
Our Customer Service Code sets out the procedures water businesses are required to follow before restricting a customer's water supply or taking legal action.

Water businesses reported that they initiated unpaid debt recovery actions (including water supply restrictions or legal action) against 5,336 residential customers across the state in 2018-19 (0.19 per cent of customers).

Figure 10 shows the number of customers that had their water supply restricted per 100 customers for each water business across five years.

Figure 11 shows the number of customers that faced legal action per 100 customers across five years.

Figure 10: Water supply restrictions for non-payment of bills per 100 residential customers



Snapshot (residential water supply restrictions per 100 customers)

State-wide average		3.6%	Metro average		-2.1%	Regional average		13.1%
2018-19	0.200	↑	2018-19	0.159	↓	2018-19	0.318	↑
2017-18	0.193		2017-18	0.162		2017-18	0.281	

Key observations

- In total, 5,148 residential customers had their water supply restricted for non-payment of water bills in 2018-19, up from 4,856 in 2017-18. This rate increase was largely due to Central Highlands Water, who restricted 410 more residential customers this year than in 2017-18.
- Measured by number of restrictions per 100 customers, the rate of restrictions declined slightly in metropolitan Melbourne.
- The rate of restrictions rose in regional areas, from 0.28 per 100 customers to 0.32. Central Highlands Water continues to be the main driver of this increasing rate, with a restriction rate that has risen considerably over the past two years to levels far above any other business.

Central Highlands Water also accounts for 41 per cent of the total number of restrictions in regional Victoria, restricting the water supply of a total of 862 customers this year.

- Despite Central Highlands Water advising in 2017-18 that the backlog of debtors had been cleared and that it anticipated the number of restrictions to return to previous levels in 2018-19, it recorded an 87 per cent increase in the rate of restrictions. This is after a more than seven-fold increase in 2017-18. Central Highlands Water explained that this is again due to its focus on reducing the backlog of debtors during the first half of 2018-19.
- Westernport Water and GWMWater also reported spikes in rates of water supply restrictions, albeit not as high as Central Highlands Water.
 - Westernport Water’s restriction rate almost doubled. It advised this increase in restrictions was deliberate, stating that restrictions were an effective debt recovery measure. This coincided with a 29 per cent decrease in the rate of legal action taken against a customer for the non-payment of bills (see below) and suggests that Westernport Water prioritised restricting a customer’s water supply over initiating legal action when pursuing unpaid debt.
 - GWMWater advised its increase is due to a low response rate from its customers in relation to unpaid debt.
- Western Water and East Gippsland Water reported no restrictions this year. Goulburn Valley Water reported a 52 per cent decrease in the rate of restrictions down from 0.21 restrictions per 100 residential customers in 2017-18 to 0.10 restrictions in 2018-19.
 - Western Water halted its payment management processes, including supply restrictions, during a review of occupational, health and safety risks.
 - East Gippsland Water has recorded no restrictions for the last seven years.
 - Goulburn Valley Water advised that it had a reduced focus on restrictions in 2018-19.



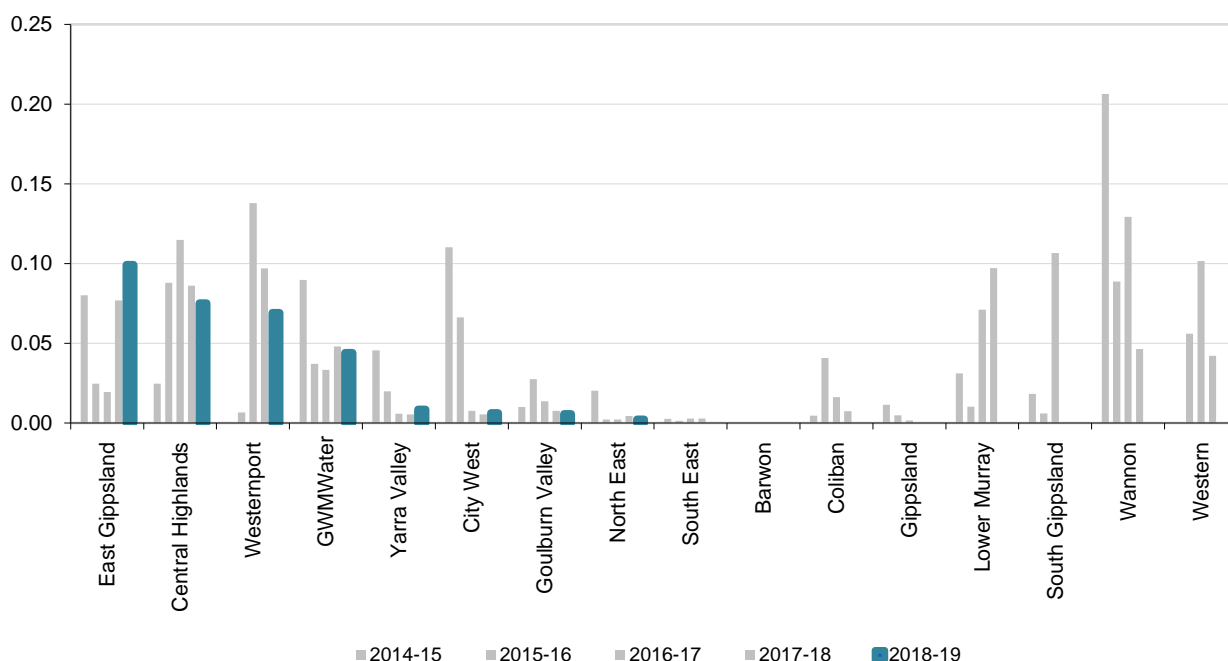
Water supply restrictions for non-payment of bills



Residential, per 100 customers

Current levels of water supply restrictions remain historically high. The increase in the rate of restrictions since 2010-11 was initially driven by metropolitan businesses. More recently however, regional water businesses overall (mainly due to Central Highlands Water) have recorded an increasing rate, contrasting a slight declining trend for metropolitan businesses.

Figure 11: Legal actions for non-payment of bills per 100 residential customers



Snapshot (residential legal actions, per 100 customers)

State-wide average		-34.5%	Metro average		-10.8%	Regional average		-49.7%
2018-19	0.0078	↓	2018-19	0.0056	↓	2018-19	0.0140	↓
2017-18	0.0119		2017-18	0.0063		2017-18	0.0278	

Key observations

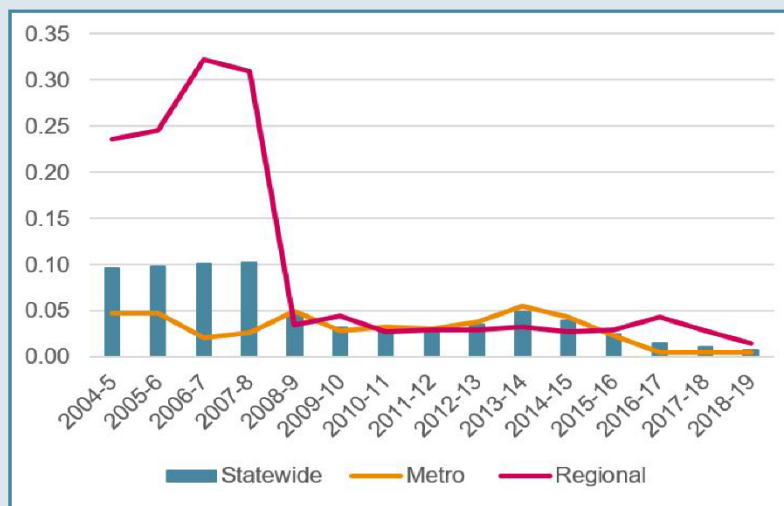
- A total of 188 residential customers out of 2.6 million faced legal action for unpaid debt across the state in 2018-19, down from 266 in 2017-18 and continuing a consecutive downward trend across the five-year review period.
- Regional Victoria saw the greatest drop with 85 fewer residential customers facing legal action compared to 2017-18. This is a record low in both total numbers and rate compared to the previous 14 years.
- There were only 8 businesses that initiated legal action this year and only 3 businesses that recorded an increase in the number of residential customers facing legal action.

- Eight businesses did not initiate any legal action against residential customers, compared to only 3 businesses last year. The 5 additional water businesses that did not initiate any legal action in 2018-19 were South East Water, Coliban Water, Lower Murray Water, Wannon Water and Western Water.
 - South East Water explained that it did not have any accounts that required legal action.
 - Coliban Water and Wannon Water both decided to prioritise other avenues for debt recovery over initiating legal action.
 - Lower Murray Water and Western Water both halted legal action in 2018-19 to review their processes.
- Barwon Water has continued to report no legal action taken against its customers (including both residential and non-residential customers). Gippsland Water and South Gippsland water have reported no legal action for the last two years.
 - Gippsland Water had ceased legal action for the past two years but has advised that legal action was reintroduced in April 2019 to address an increase in debt that is over 90 days overdue. This signals a spike in legal action in the future, however, Gippsland Water emphasized that it remains focused on working with customers on a case by case basis to provide payment arrangements that suit customer circumstances.
 - Since 2016 South Gippsland Water has had a designated resource to work with customers to assist with payment plans, get hardship support and apply for utility relief grants. This greater emphasis on working with customers to negotiate different payment arrangements has allowed South Gippsland Water to avoid taking legal action.
- Lower Murray Water went from reporting 29 customers facing legal action in 2017-18 to reporting that it did not initiate any legal action in 2018-19. Lower Murray Water advised that this is due to a review of its current collection agency arrangements which may have stalled debt recovery action and caused a backlog signalling a future spike.
- East Gippsland Water and Central Highlands Water reported relatively higher numbers of legal action taken per 100 residential customers, however Central Highlands Water reported 6 fewer residential customers facing legal action compared to the previous year. Conversely, East Gippsland Water reported 5 more customers facing legal action.
- The average level of debt at the time of legal action dropped by 3 per cent statewide and by 13 per cent in regional Victoria, mostly because of the 8 water businesses that did not initiate any legal action against residential customers in 2018-19.
- City West Water and Goulburn Valley Water reported relatively large increases in average debt level at the time of legal action with Goulburn Valley Water also reporting the highest average debt at \$4,421.

- City West Water explained that the higher average debt level is the result of its policy to pursue unpaid debt through restrictions over legal action. This meant it took longer to initiate legal action where restricting a customer’s water supply was ineffective, and as such the customer’s debt at the time of legal action was often higher.
- Goulburn Valley Water who had only taken legal action against three residential customers in 2018-19, had one customer with a particularly high amount of debt at the time of legal action driving up the average level.



Legal actions for non-payment of bills



Residential,
per 100 customers

Statewide the number of customers facing legal action for unpaid debt per 100 customers over 15 years has trended downward. In regional Victoria the rate dropped considerably from 2006-7 to 2010-11 and has remained relatively flat since. In metropolitan Victoria the rate has mostly been flat but has tailed off over the past five years.

2. How water businesses respond to their customers

This chapter explores how water businesses manage enquiries to their call centres. We also examine the most common areas for complaints made to water businesses and when customers take their complaints to the ombudsman.

Our Customer Service Code places obligations on businesses for responding to enquiries or complaints and providing appropriate service. These obligations include having policies, practices and procedures for handling customers' complaints and disputes, and providing certain information to customers on request. Specific details can be found in each water business's Customer Charter, which is available on its website.

2.1. 2018-19 at a glance

The customer service standards of water business call centres were consistent with other sectors and slightly higher than other utility businesses.

The number of complaints made to water businesses was up across the state, with the largest proportion relating to water quality.

Complaints about water quality increased compared to the previous year, driven largely by metropolitan water businesses.

2.2. Water business customer service

We asked Customer Service Benchmarking Australia (CSBA) to independently benchmark the call centre performance of Victorian water businesses. Posing as genuine customers with general enquiries, trained CSBA mystery shoppers contacted each of the water businesses' call centre agents on 60 occasions via the account line (as opposed to the fault line) and scored each interaction.

CSBA uses an approach called SenseCX for scoring the key aspects of the customer experience during a telephone call.

The key aspects are described as: **engage, introduce, clarify, resolve** and **close**. The scoring approach measures performance in these key aspects across the following three pillars:

- **Ease** – the effort the customer has to expend to accomplish their goals. The interaction must be easy. The agent should actively guide the customer through a clear process towards resolution.
- **Sentiment** – how the experience and interaction make the customer feel. Customers want to be treated as an individual, not just another transaction in the agent's day.
- **Success** – the degree to which the customer is able to accomplish their goals. Customers want to get what they came for and move on. They need to be understood and provided with a no-fuss resolution.

The SenseCX approach not only provides a benchmark comparative score, but also helps businesses identify specific areas where they can improve the customer experience. Points are allocated for meeting specific criteria across the three pillars. The score is simply the percentage of total points achieved out of the total points available for each pillar.

Overall, the Victorian water sector achieved a score of 55 per cent, up three percentage points from the previous year. This score is comparable to the median scores of utilities and other sectors measured by CSBA.

Since 2017-18, CSBA has applied its SenseCX approach to score the water sector and compare it with other sectors' scores. Table 4 outlines the overall scores for each of the sectors in 2018-19, which all fall within a narrow 4 percentage point range. Table 5 provides the overall score for each water business, along with scores for each of the three pillars: ease, sentiment and success.

Table 4: Victorian water sector compared to other Australian sectors in 2018-19 (median score under SenseCX)

Sector	Median score (per cent)
Education	58
Automotive	57
Commercial	57
Financial Services	55
Australian Water Sector	55
Victorian Regional Water Sector	55
Victorian Metropolitan Water Sector	54
All Utilities	54
Government	54

Source: CSBA

Table 5: Water businesses overall benchmark scores and scores for each pillar under SenseCX (per cent)

Water business	Score	Ease	Sentiment	Success
Barwon Water	71	60	76	75
Coliban Water	65	51	75	68
Western Water	57	39	62	68
East Gippsland Water	56	38	61	67
Wannon Water	56	33	63	69
Westernport Water	55	36	66	62
South East Water	54	34	63	64
Gippsland Water	54	34	64	63
Yarra Valley Water	54	34	61	66
City West Water	54	32	61	66
North East Water	52	28	61	64
South Gippsland Water	52	34	61	62
Goulburn Valley Water	51	31	57	62
Central Highlands Water	51	32	59	61
GWMWater	51	32	61	60
Lower Murray Water	51	30	59	62
Victorian Water Sector (average)	55	36	63	65

Source: CSBA

Key observations

- Victorian urban water businesses improved slightly from the previous year on both the sentiment and success pillars, with an average score of 63 and 65 per cent for each pillar respectively. Although there was also an improvement seen in the third pillar – ease – with an average score of 36 per cent up 4 percentage points from the previous year, most businesses still have some way to catch up to the sentiment and success pillars scores.
- All water businesses either maintained or improved their overall score compared to the previous year. Barwon Water was the best performing business. It was also the most improved business, up by 19 percentage points from 52 per cent in 2017-18.

- Scores show that business call centres are skilled in resolving everyday general enquiries. However, making sure processes are clear to customers and guiding them through to a resolution continues to be the area that most water businesses need to improve, with only two businesses scoring above 50 per cent for the ease pillar.

Want more information?

For more information, see our data summary which contains the data that forms the basis for our tables and charts available at <https://www.esc.vic.gov.au/water/water-sector-performance-and-reporting/water-performance-reports>

2.3. How customers rate their water business

We survey 1,450 water customers every quarter (5,800 customers a year) across the 16 urban and regional water businesses on how they think their water business rates across four key areas: value for money, reputation in the community, level of trust and overall satisfaction.

Figures 12 to 15 below show the scores out of 10 that customers gave their water business for each of these four key areas across six quarters. For more information about our customer surveys see <https://www.esc.vic.gov.au/water/sector-performance-and-reporting/how-customers-rate-their-water-business>.

Figure 12: How customers rated their water business in providing value for money

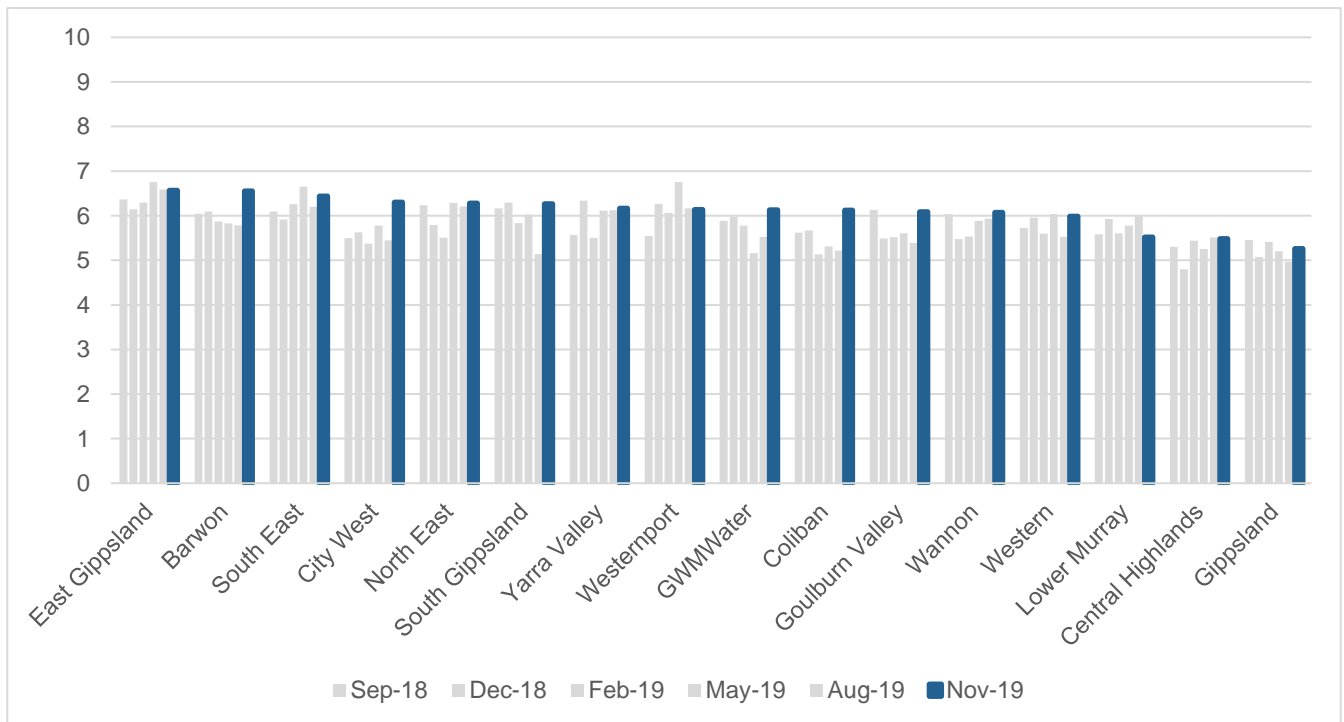


Figure 13: How customers rated their water business's reputation in the community

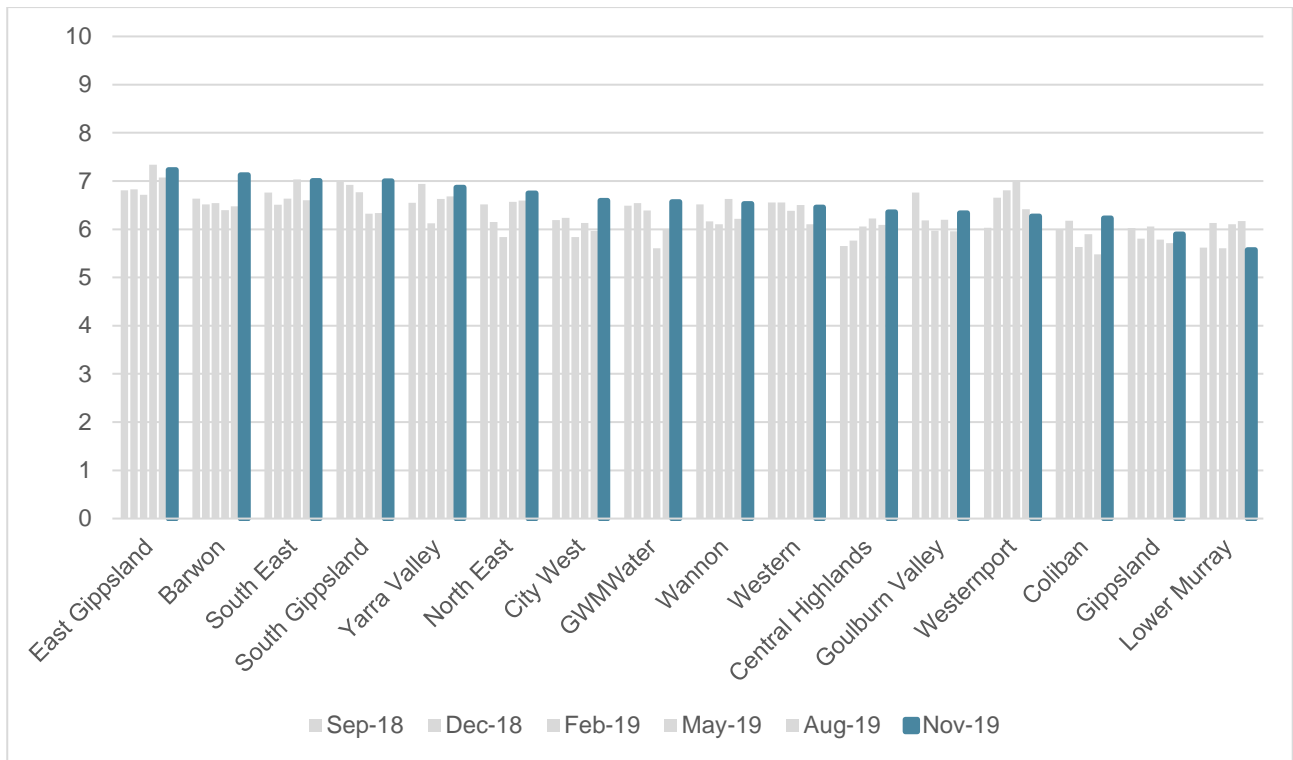
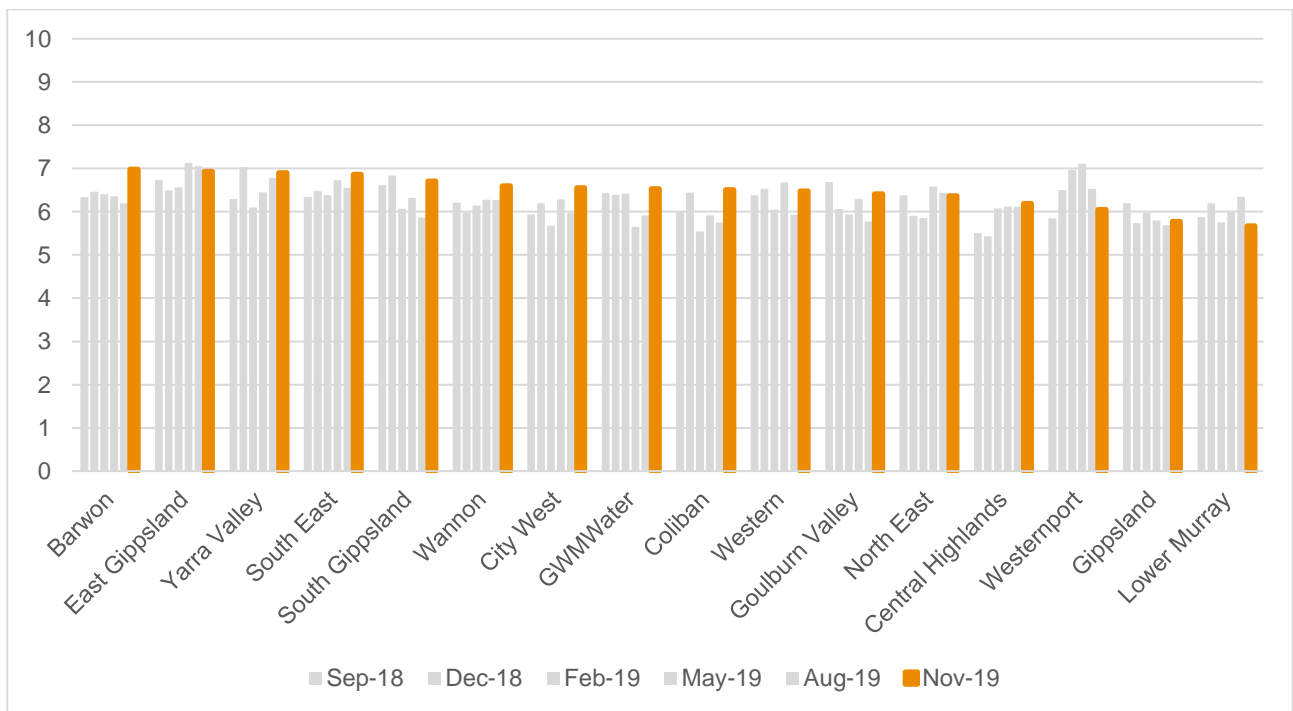
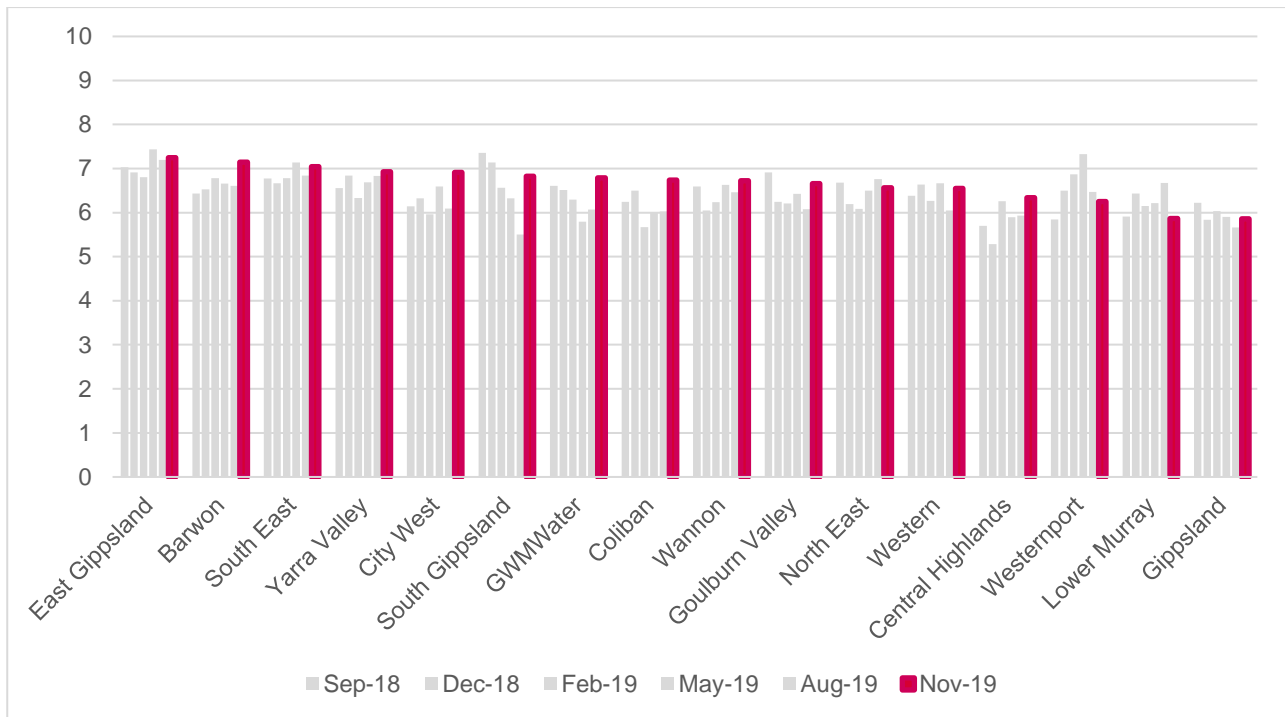


Figure 14: How customers rated their trust for their water business



How water businesses respond to their customers

Figure 15 How customers rated their over satisfaction with their water business



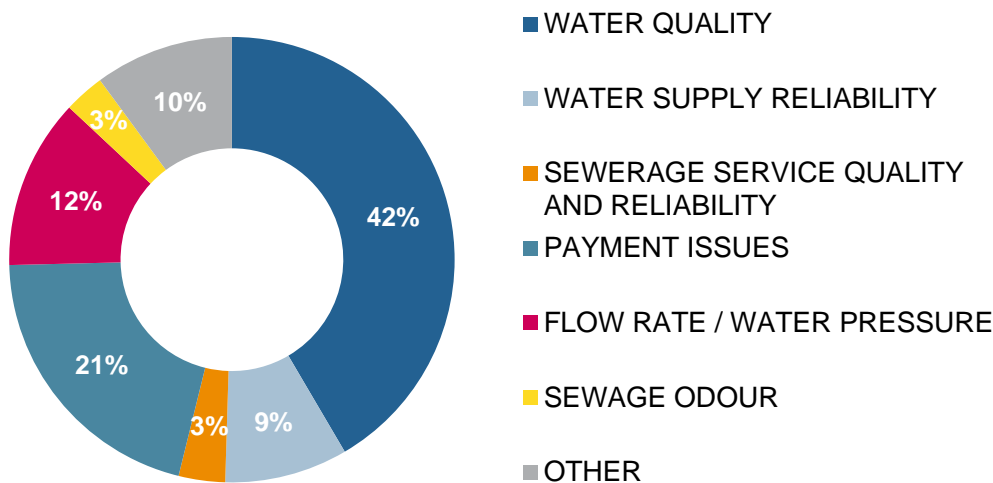
Key observations

- East Gippsland Water stands out as the highest rated business by its customers for all four areas on average across the six quarters, followed closely by South East Water.
- Barwon Water and City West Water had the most improved rating in the latest quarter compared to their average rating across the six quarters.
- Gippsland Water is rated the lowest or one of the lowest by its customers for all four areas on average across the six quarters.
- Central Highlands Water was rated the lowest for overall satisfaction on average across the six quarters. Lower Murray Water was rated the lowest for reputation and trust.
- In the latest quarter, Melbourne businesses achieved a marginally higher overall rating (ranging from 0.2-0.3 points higher) than regional businesses for each of the four areas.

2.4. Complaints made to water businesses

Customer complaints can indicate dissatisfaction with the services provided by water businesses.¹¹ If a business cannot resolve a complaint directly with the customer, the customer may refer the matter to the Energy and Water Ombudsman (Victoria) for further investigation. Figure 16 breaks up the total complaints made to water businesses in 2018-19 according to several categories and sizes each category according to its relative share of complaints.

Figure 16: Complaints by category in 2018-19 (total complaints made to water businesses)

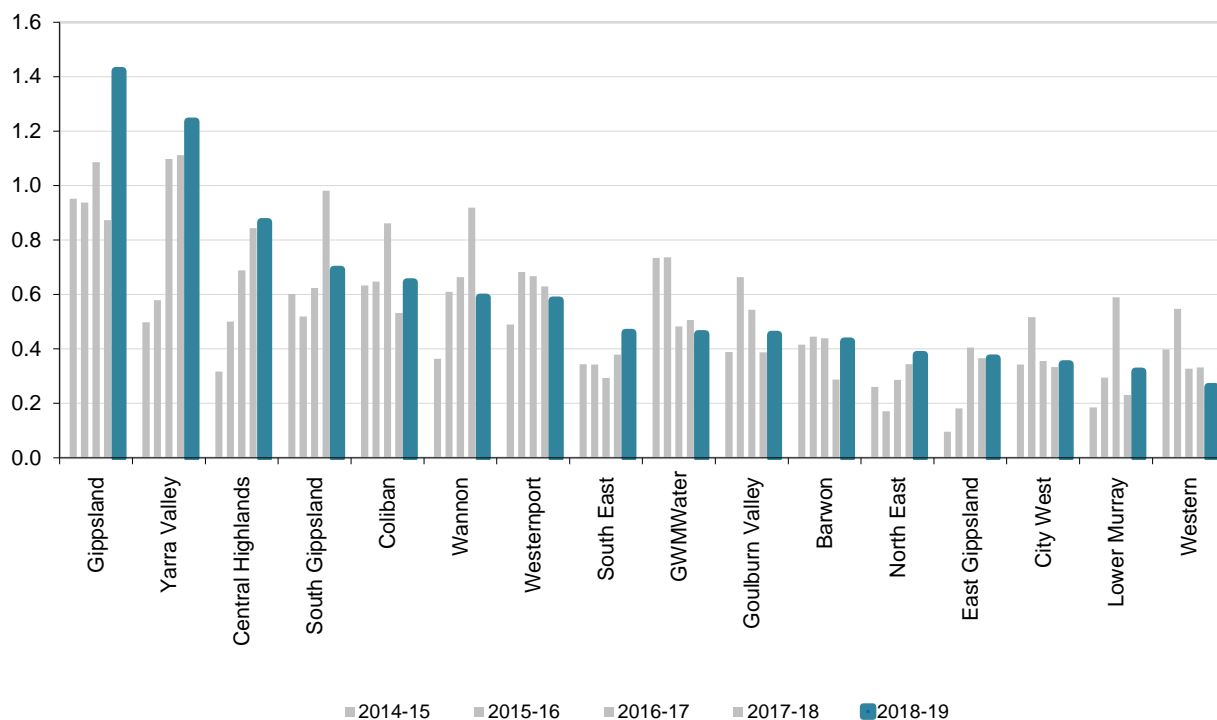


In 2018-19, a total of 19,633 complaints were made to water businesses across Victoria, up 15 per cent from 17,029 complaints in 2017-18. This increase was largely driven by a spike in water quality complaints reported in metropolitan Victoria (discussed in the next section). Water quality complaints represented 42 per cent of the total statewide complaints which is 6 percentage points higher than in 2017-18.

Accordingly, the number of water quality complaints outnumbered all other complaints for all water businesses except Barwon Water, Central Highlands Water and Gippsland Water. Barwon Water and Central Highlands Water received more complaints about water pressure than water quality. Gippsland Water, which had the highest complaint rate this year, received more complaints about payment issues. Complaints about payment issues ranked second for the majority of water businesses. Figure 17 shows the complaint rate for each water business per 100 customers.

¹¹ A complaint is recorded if a customer registers dissatisfaction in a complaint category. Australian Standards define a complaint as an “expression of dissatisfaction made to or about an organisation, related to its products, services, staff or handling of a complaint where a response is implicitly expected or legally required.” (AS/NZS 10002:2014)

Figure 17: Complaints made to water businesses (per 100 customers)



Snapshot (total complaints, per 100 customers)

State-wide average		12.7%	Metro average		12.3%	Regional average		13.8%
2018-19	0.70	↑	2018-19	0.74	↑	2018-19	0.59	↑
2017-18	0.62		2017-18	0.66		2017-18	0.52	

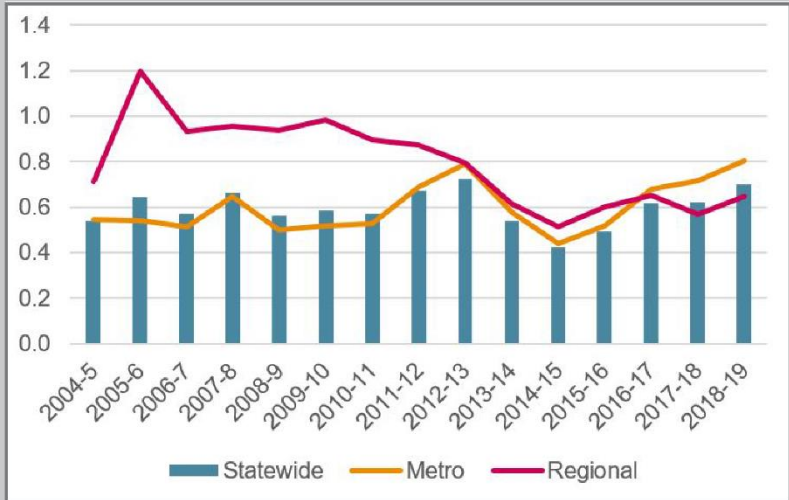
Key observations

- The average customer complaint rate in 2018-19 was 0.7 complaints per 100 customers, up 13 per cent from a complaint rate of 0.6 in 2017-18.
- The complaint rate was up for both metropolitan and regional urban water businesses by 12 per cent and 14 per cent respectively.

- Gippsland Water reported the highest complaint rate and the highest increase from 2017-18. The largest proportion of these complaints were related to payment issues. Gippsland Water advised that the increase was largely due to a greater effort across the business to record customer complaints using a new complaints framework. A number of other contributing factors were also provided to explain the higher rate, including extended dry conditions, water main breakages and higher demand.
- Barwon Water and Lower Murray Water also reported relatively high increases in their complaint rates.
 - Barwon Water advised that its increase in complaints was partly due to the summer of 2018-19 being warmer and drier than previous years. Accordingly, Barwon Water saw a spike of complaints relating to water pressure and flow rate which accounted for 28 per cent of its total complaints.
 - Lower Murray Water advised that its increase in complaints was partly due to its mains replacement program that had caused water quality issues.
- Meanwhile South Gippsland Water and Wannon Water reported decreases in complaint rates, returning to historical levels after both observing spikes in 2017-18.



Complaints made to water businesses



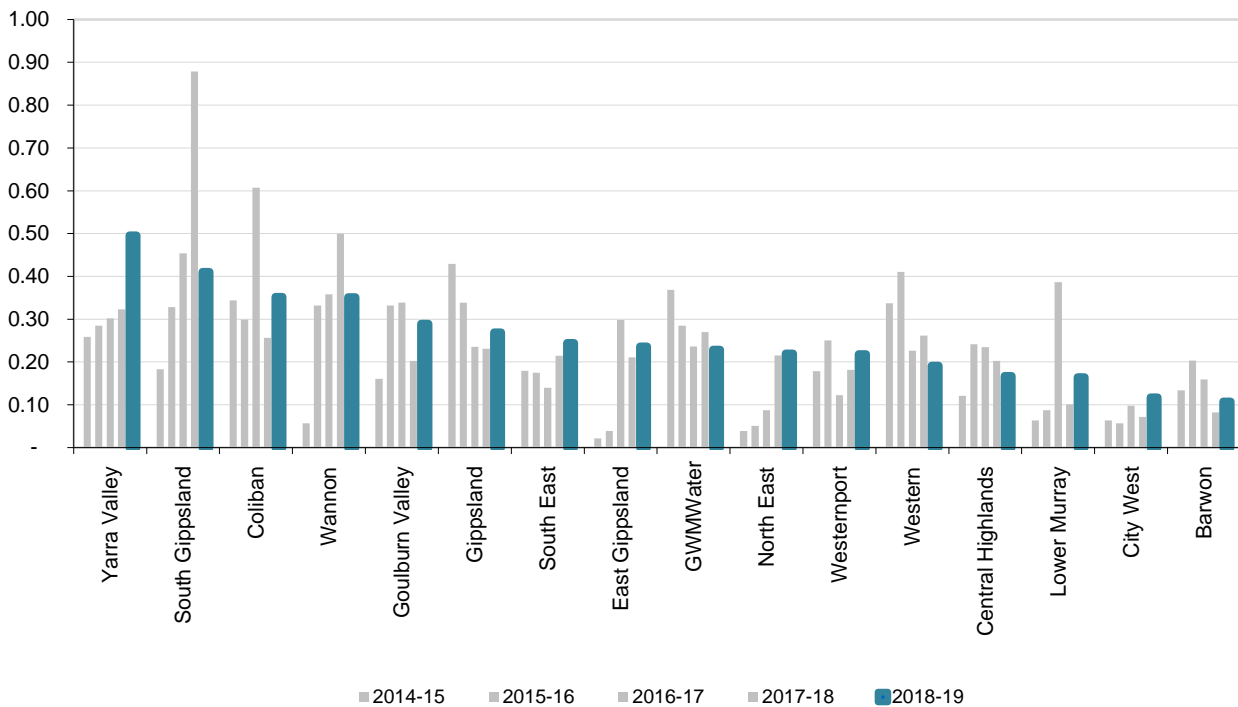
Residential, per 100 customers

Over the past 15 years the number of complaints made to water businesses per 100 customers has varied in metropolitan Victoria. In regional Victoria the complaint rate has come down from a peak in 2005-06 to below the metropolitan rate. In the past couple of years complaints appear to be trending up for both metropolitan and regional businesses.

2.5. Water quality complaints made to water businesses

The number of water quality complaints is a measure of customer satisfaction with the colour, taste and odour of water supplied. Figure 18 shows the number of water quality complaints received by each water business per 100 customers across five years

Figure 18: Water quality complaints made to water businesses (per 100 customers)



Snapshot (water quality complaints, per 100 customers)

State-wide average		29.1%	Metro average		39.5%	Regional average		-1.2%
2018-19	0.29	↑	2018-19	0.31	↑	2018-19	0.22	↓
2017-18	0.23		2017-18	0.23		2017-18	0.23	

Key observations

- A total of 8,156 water quality complaints were made to water businesses across the state, 1,981 more complaints than the previous year. This equates to a rate of 0.29 water quality complaints per 100 customers state-wide and is a 29 per cent increase from the previous year.

How water businesses respond to their customers

- Water quality complaints made to metropolitan water businesses was the main driver of the statewide increase. All three metropolitan water businesses observed increases in the rate of water quality complaints they received, with a five-year record high average of 0.31 complaints per 100 customers up from 0.23 complaints in 2017-18. City West Water and Yarra Valley Water both reported relatively large spikes in their complaint rates. Yarra Valley Water also reported the highest rate statewide with 0.50 complaints per 100 customers.
 - Some of City West Water and Yarra Valley Water customers were affected by a water quality issue at Melbourne Water’s Greenvale Reservoir in late February 2019. As a result, complaints mainly relating to water colour jumped up for both businesses and continued for months after the issue was resolved due to residual sediments in the water supply network.
 - Besides the water quality issue at Greenvale Reservoir, Yarra Valley Water also attributed its spike in complaints to a source supply change from Sugarloaf to Silvan Reservoir in August 2018, and a distribution main failure in May 2019. Changes in source supply can lead to variations in colour, taste and odour due to differences in the mineral content of the water.
- Most regional water businesses also observed increases in the rate of water quality complaints. However, the overall average was brought down by South Gippsland Water, Wannon Water, Western Water, Central Highlands Water and GMMWater who all reported decreases.
- South Gippsland Water had the highest water quality complaint rate in regional Victoria with 0.41 complaints per 100 customers, despite also reporting the largest decrease in complaints, down from 0.88 complaints per 100 customers in 2017-18. South Gippsland Water had advised that the spike in 2017-18 was due to manganese build-up in some of its systems (manganese is naturally occurring in local soils), as well as algae blooms due to warm, dry conditions. Complaints have since returned to previous levels after South Gippsland Water initiated an air scouring program in affected towns which resolved the issue.
- Wannon Water reported the second largest decrease after a spike in 2017-18 caused by a seasonal algae bloom.
- Lower Murray Water, who had the lowest water quality complaint rate after Barwon Water, saw a modest increase in complaints from 0.10 complaints per 100 customers in 2017-18 to 0.16 complaints in 2018-19. It attributed the increase to a water mains replacement program and commented that water quality was restored after flushing.
- Water colour was the largest water quality complaint category for all water businesses, with the exception of Westernport Water. Westernport Water, which had more complaints relating to water taste/odour, had more than double the number of water taste/odour complaints compared to the previous year. It explained that this was due to ongoing works to obtain a stable residual chlorine level within the distribution network.



Water quality complaints made to water businesses



per 100 customers

Across the state, water quality complaints over 15 years appear to have trended downward overall, despite starting to rise again in 2018-19. In regional Victoria, water quality complaints have come down considerably since a peak in 2005-06 and has dropped below metropolitan levels in just the last two years. Metropolitan Victoria has trended up for the last four years.

3. Water and sewer network reliability

This chapter looks at reliability of the water and sewer networks, by exploring how often customers are without a water supply and how often sewer blockages and spills impact customers. Our measures only consider the pipe network and pumps under the control of the water businesses and exclude the private property connections managed by customers.

3.1. 2018-19 at a glance

Water networks were reliable with minimal supply interruptions. Across the state, there was a slight reduction in average customer minutes off supply.

Sewer service reliability went down across the state, with an increase in sewer blockages. Sewer blockages are more common during prolonged dry periods such as experienced over the past few years. This is because, under drier conditions tree roots often enter sewer pipes in search of water causing blockages.

3.2. Water service – minutes off supply

Minutes off supply is a measure of how many minutes on average a customer for each water business was without their water supply during a year. This measure only looks at interruptions to water mains and excludes smaller ancillary pipelines or private connections.

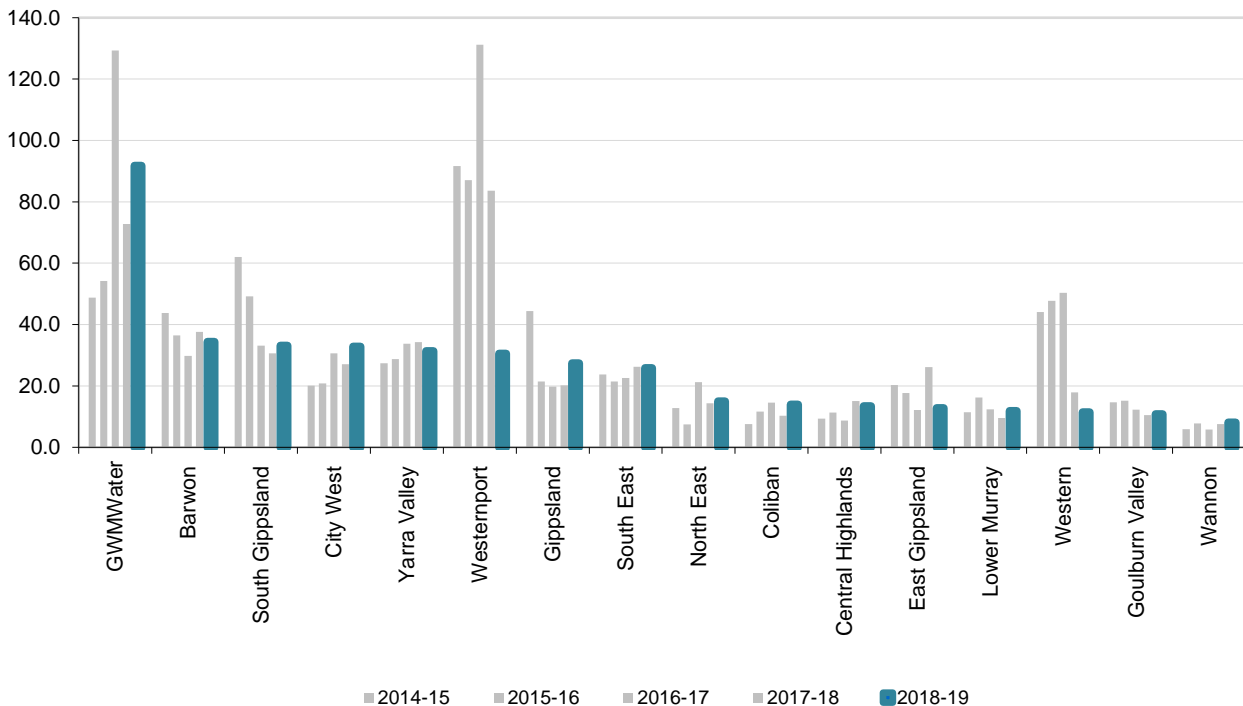
Various factors affect average minutes off supply, including the number of interruptions, the duration of each interruption and the number of customers affected by each interruption. Whether interruptions are planned or unplanned also gives insight into the stability and reliability of the network. Figure 19 shows the average time in minutes a customer had their water supply interrupted for each water business across five years.

Types of interruptions – planned and unplanned

A planned interruption occurs when a customer has received at least two days' notice of an interruption to their water service. An unplanned interruption occurs when this notice was not given, or the duration of a planned interruption exceeded the time estimated.

The duration of supply interruptions can be greatly affected by factors including the size and location of the pipeline, access to the worksite, the availability of work crews to attend, and the nature of the repair required.

Figure 19: Average minutes off water supply per customer



Snapshot (average customer minutes off supply)

State-wide average		-0.9%	Metro average		-0.1%	Regional average		-4.0%
2018-19	28		2018-19	30		2018-19	23	
2017-18	28		2017-18	30		2017-18	24	

Key observations

- Across Victoria, the average minutes off supply decreased slightly by 1 per cent compared to the previous year. In Melbourne, the average minutes off supply remained steady at 30 minutes. Conversely, regional Victoria saw a 4 per cent decrease, down from 24 minutes in 2017-18 to 23 minutes in 2018-19.
- Westernport Water reported the greatest decrease from 84 minutes off supply in 2017-18 down to 31 minutes off supply in 2018-19, bringing it closer to the state-wide average. Westernport Water explained that this noticeable improvement was due to a change in the construction method used for main renewals which has led to a reduction in planned network interruptions.
- Wannon Water retained amongst the lowest minutes off supply for the five-year review period despite observing a slight increase.
- GMMWater has consistently reported amongst the highest minutes off supply for the five-year review period and had the highest time off supply at 92 minutes, up from 73 minutes in 2017-18.

3.3. Sewerage service – sewer blockages

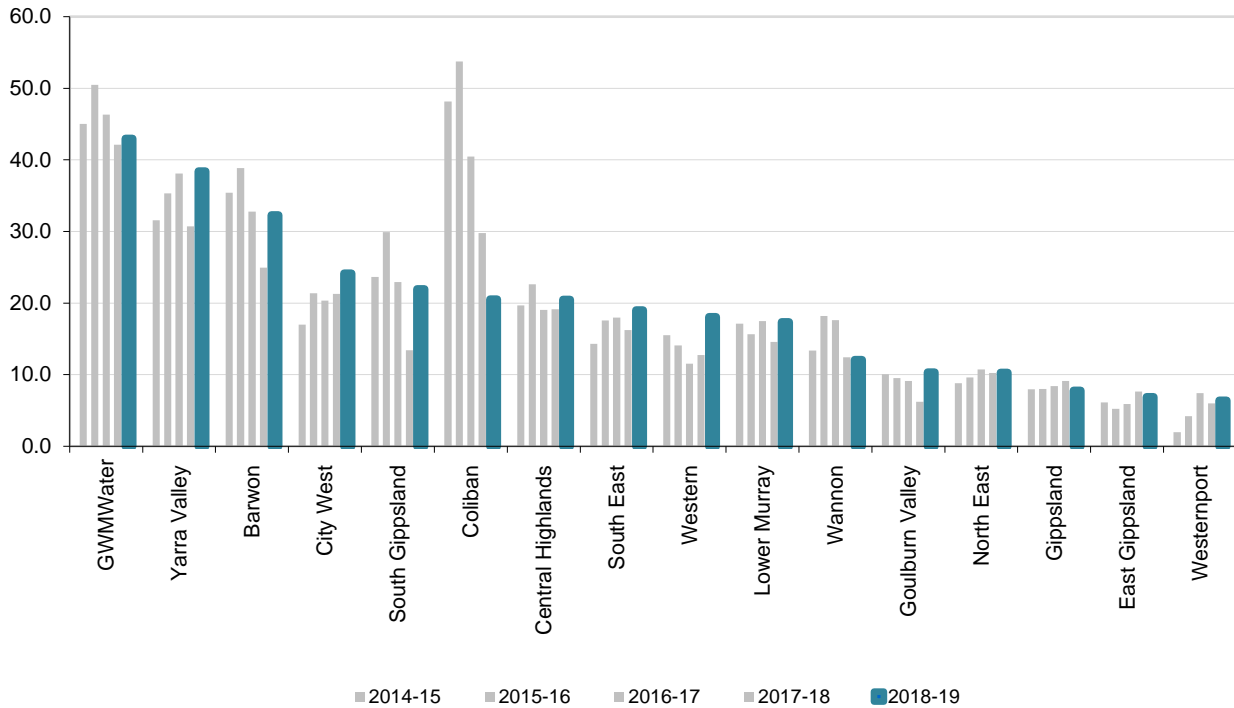
Sewer networks consist of:

- trunk and reticulation mains (core infrastructure involving large pipes and pumps to transfer sewage to treatment facilities)
- house connection branches and property drains (ancillary smaller infrastructure that transfers sewage from customers to the sewer mains)
- private connections from customers to connection branches or property drains (faults in these are the responsibility of customers).

Figure 20 shows the number of sewer blockages reported per 100 kilometres of sewer main for each water business across five years.

A sewer blockage is a partial or total obstruction of a sewer main that impedes sewage flow and does not include blockages in the ancillary infrastructure or private connections.

Figure 20: Sewer blockages per 100 kilometres of sewer main



Snapshot (Sewer blockages per 100 kilometres of sewer main)

State-wide average		16.2%	Metro average		20.7%	Regional average		7.3%
2018-19	24.2	↑	2018-19	27.9	↑	2018-19	18.7	↑
2017-18	20.9		2017-18	23.1		2017-18	17.4	

Key observations

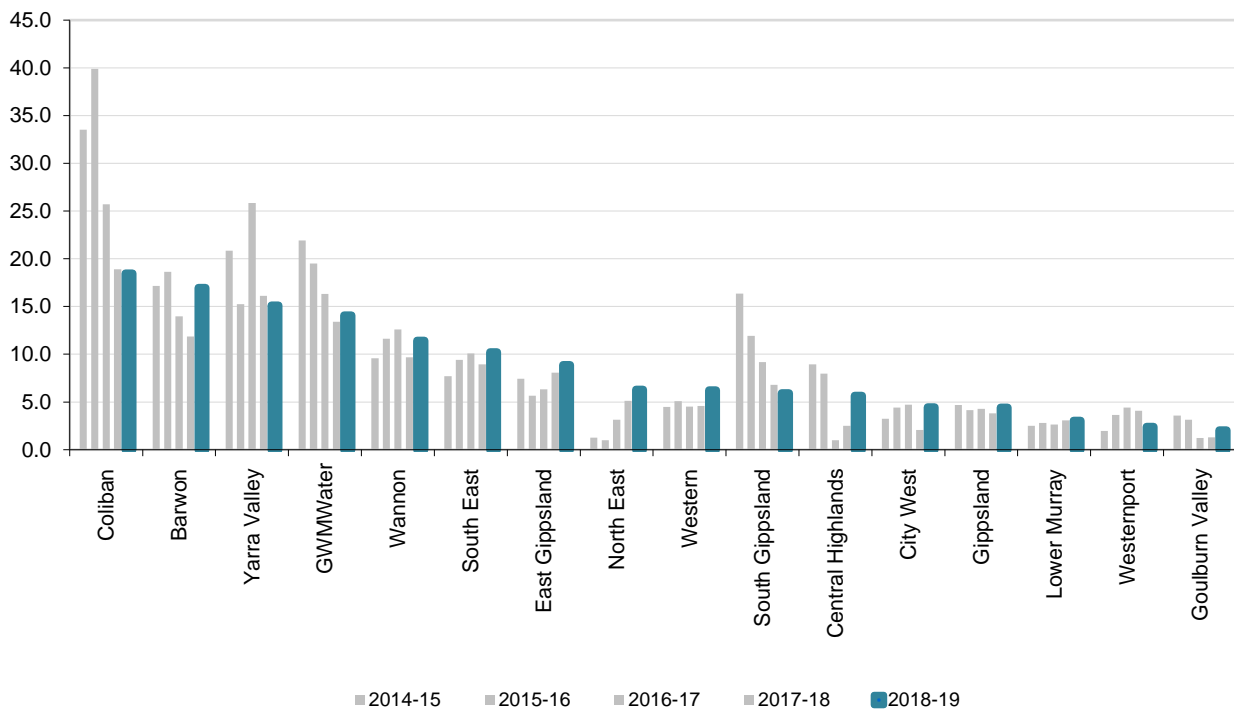
- The rate of sewer blockages went up across both metropolitan and regional Victoria, with the overall rate across Victoria increasing by 16 per cent to 24 sewer blockages per 100 kilometres in 2018-19, from 21 blockages in 2017-18. Most businesses reported an increase in blockage rate whereas in 2017-18 most water businesses reported a decrease. After a prolonged drier period, tree roots often dig deeper into the ground in search of water and can enter sewer pipes causing blockages. Considering that 2018-19 has had lower than average rainfall, the increase in sewer blockages is not unusual.
- All three of Melbourne’s urban water businesses reported an increase in the rate of sewer blockages. Out of the three, Yarra Valley Water reported the highest rate with 38 blockages per 100 kilometres of sewer main, which is a 25 per cent increase compared to 2017-18 but similar to the year prior.
- GWMWater reported the highest rate of sewer blockages with 43 blockages per 100 kilometres of sewer mains.

- Coliban Water has continued to improve its sewer network through its preventative and predictive maintenance program. Because of this sewer blockages have dropped by 25 per cent or greater for the last three consecutive years and its rate of blockages is now down to state average levels with 21 blockages per 100 kilometres of sewer main. This is after reporting an especially high rate in 2015-16, with 54 blockages per 100 kilometres.

3.4. Sewerage service – containment of sewer spills

Spills are a failure to contain sewage within the core sewer infrastructure. Figure 21 shows the number of sewer spills reported per 100 kilometres of sewer main for each water business across five years.

Figure 21: Sewer spills per 100 kilometres of sewer main



Snapshot (Sewer spills per 100 kilometres of sewer main)

State-wide average		9.8%	Metro average		5.0%	Regional average		19.6%
2018-19	10.5	↑	2018-19	11.1	↑	2018-19	9.5	↑
2017-18	9.6		2017-18	10.6		2017-18	8.0	

Key observations

- Eleven businesses reported increases to their sewer spill rate this year. Accordingly, sewer spills across the state increased by 10 per cent to 10.5 sewer spills per 100 kilometres.
- While still well below the state average, Central Highlands Water and City West Water reported relatively high increases in their sewer spill rates compared to 2017-18 when Central Highlands Water reported the third lowest spill rate and City West Water reported the second lowest.
- Coliban Water maintained its lower rate after dropping down considerably in the previous two years. This is despite also reporting the highest spill rate of the state.
- Goulburn Valley Water, with only 2 sewer spills per 100 kilometres of sewer main, has continued to report the lowest spill rate for the last three years despite reporting an increase this year.

Containing spills within five hours

- Eight businesses contained 100 per cent of sewer spills within five hours in 2018-19. This is down from 9 businesses in the previous year.
- South East Water and GWMWater maintained close to 100 per cent of spills within five hours containing 99.99 per cent and 99 per cent respectively.
- The percentage of spills contained within five hours for the remaining six businesses was:
 - Yarra Valley Water — 97 per cent, down from 98.1 per cent in 2017-18
 - Central Highlands Water — 93.9 per cent, down from 97.2 per cent in 2017-18
 - East Gippsland Water — 98.4 per cent, down from 100 per cent in 2017-18
 - North East Water — 96.1 per cent, down from 100 per cent in 2017-18
 - Wannon Water — 96.3 per cent, down slightly from 96.7 per cent in 2017-18
 - Western Water — 97.7 per cent, down from 98.4 per cent in 2017-18.

4. How much water is recycled

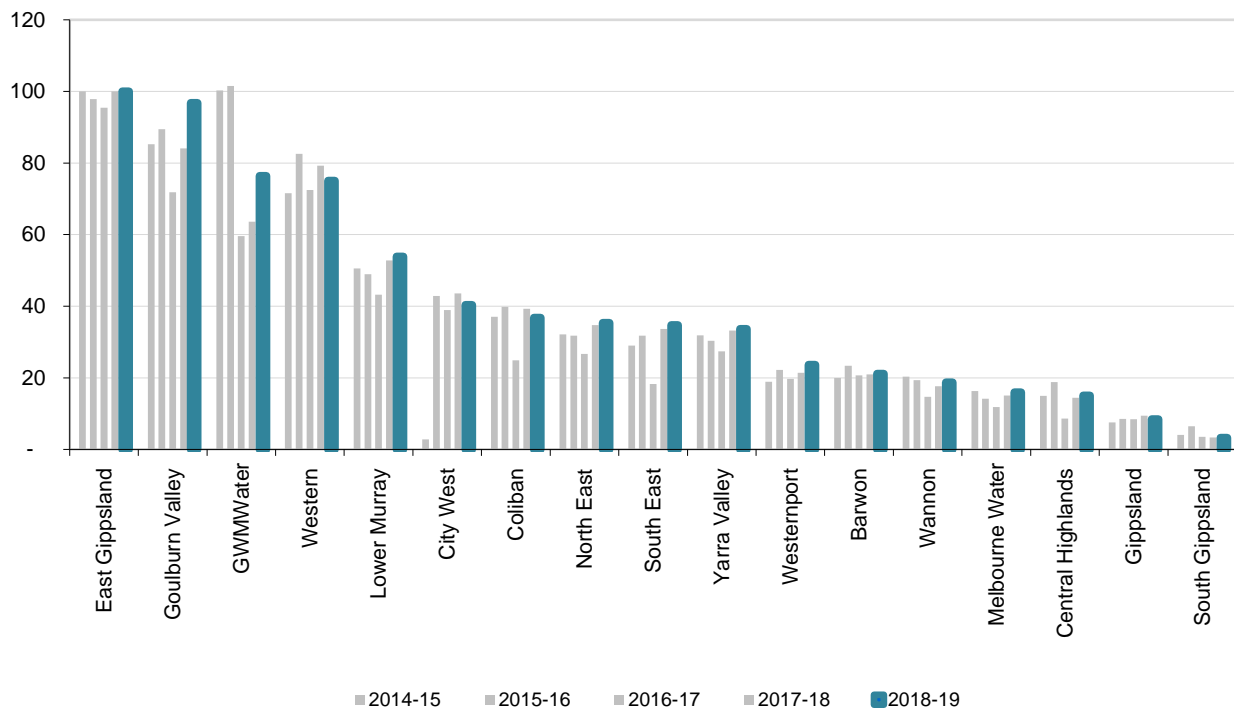
4.1. Recycled water – effluent treatment and reuse

Wastewater consists of residential and non-residential sewage, trade waste from commercial and industrial customers, and stormwater that reaches the sewer network. The wastewater treatment plants produce an effluent stream that, if unused or not recycled, is normally discharged to the environment.




Recycled water is generally used on turf farms, dairy farms, recreational lands (such as parks and golf courses) and is used in some industrial processes and for irrigation. Some businesses operate ‘third pipe’ recycled water supply systems to their customers, for non-potable uses such as watering the garden and flushing the toilet. Recycled water can also be used for beneficial environmental outcomes, such as maintaining wetlands.

Figure 22 shows the percent of water recycled as a percentage of the volume of effluent produced by each water business across five years.

Figure 22: Recycled water used as a percentage of effluent volume produced



Snapshot (recycled water, percentage of effluent produced)

State Average		1.3%	Metro Average		4.7%	Regional Average		-2.5%
2018-19	22		2018-19	18		2018-19	33	
2017-18	21		2017-18	17		2017-18	34	

Key observations

- Across the state, total effluent production went down 13,829 megalitres from 474,752 megalitres in 2017-18 to 460,923 megalitres in 2018-19. This is a 3 per cent decrease which follows a two-year downward trend after a peak was reported in 2016-17 during which there was higher rainfall. Reduced production of effluent is consistent with the last two years' lower than average rainfall as there is less rainwater entering the sewer system.
- Metropolitan and regional businesses reported decreases in effluent production of 2 per cent and 5 per cent respectively. Melbourne Water produced 305,509 megalitres of effluent on behalf of the three metropolitan retailers.
- Twenty-two per cent of effluent produced was reused as recycled water across the state. This is up from 21 per cent in 2017-18, while the total volume fell by 1,723 megalitres. A total of 100,336 megalitres of recycled water was delivered to customers in 2018-19.
 - In Melbourne the proportion of effluent reused increased from 17 per cent in 2017-18 to 18 per cent in 2018-19.
 - Conversely in regional Victoria the proportion of effluent reused decreased from 34 per cent in 2017-18 to 33 per cent in 2018-19.
- Melbourne Water delivered 48,624 megalitres of recycled water in 2018-19, 3 per cent more than in 2017-18.
- East Gippsland Water reused 100 per cent off the effluent it produced, as it did in 2017-18, delivering 2,496 megalitres of recycled water to its customers.
- Goulburn Valley Water, who delivered the largest amount of recycled water in regional Victoria, reused 97 per cent of the effluent it produced compared to 84 per cent in 2017-18.
- Western Water continues to deliver higher than state average volumes of recycled water despite reporting a 26 per cent decrease.
- South Gippsland Water continues to report the lowest proportion of recycled water usage. This year it only reused 3 per cent of effluent produced and delivered the lowest volume (124 megalitres) of recycled water to its customers.



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