


Yarra Valley Water – Outcomes – 2023-2028

In this document, the water business provides a summary report of its actual performance against each of its outcome commitments for the 2023-2024 reporting year. The business has given itself a “traffic light” rating (green = met target, red = not met, yellow = close or largely met) for its performance on each measure, outcome and an overall rating. The business has provided its own comments about its performance on each outcome and overall.

Summary table

Outcome	23-24	24-25	25-26	26-27	27-28	Overall for the period to date
1. Safe and pleasant drinking water	Yellow					Yellow
2. Reliable water and sewerage services	Green					Green
3. Timely response and repair	Green					Green
4. Service that meets everyone’s needs	Green					Green
5. Saving water for the future	Red					Red
6. Looking after our natural environment	Red					Red

Overall, for reporting year



Business comments

In 2023-24, we worked towards 6 service outcomes that customers told us they most valued and expected from their water and sewerage services.

This was the first year of our [2023 to 2028 approved regulatory plan](#), covering our investments, services and prices. This sets out how we'll deliver upon customers' needs and expectations while keeping bills stable, create additional value and contribute to a brighter future for communities and the natural environment.

For the 2023-28 period we set 6 outcomes and 17 corresponding measures, which represent the breadth and depth of our commitments. This reflects the feedback from both our citizen juries and ongoing engagement with a diverse group of customers across our service area.

For this price period, we empowered our customers to hold us accountable by establishing a community panel to determine how well we've achieved the outcomes. As part of our commitment, we've promised to provide a community rebate of up to \$1.8 million for each outcome we don't achieve (up to \$10.5 million per annum). This year we fully met 3 of the 6 outcomes and achieved 13 of 17 measures. Based on the panel's assessment and recommendation, we have mostly met the outcome of Safe and pleasant drinking water, and not met the outcomes Saving water for the future and Looking after our natural environment. A \$3.39 million rebate will be returned to customers through bills for those outcomes we haven't fully met.

A summary of our performance of each outcome is also provided on our [website](#).

Outcome 1: Safe and pleasant drinking water

Output	Unit		22-23	23-24	24-25	25-26	26-27	27-28
a Compliance with Safe Drinking Water Regulations (2015) (water sampling health parameters and regulatory audit)	Number of non-compliances	Target	0	0	0	0	0	0
		Actual		0				
b Customers who agree we provide great drinking water (survey respondents answering 'strongly agree' or 'somewhat agree' via our ongoing survey)	% of customers surveyed	Target	n/a	≥91%	≥91%	≥91%	≥91%	≥91%
		Actual		86%				

How is YVW tracking for outcome 1 in the regulatory period so far?



Business comment

a Compliance with Safe Drinking Water Regulations (2015)

Customers told us that 'compliance with safe drinking water regulations (2015)' is the most important measure for this outcome.

We have a comprehensive risk-based water quality monitoring program that ensures the water we supply is high quality, safe and pleasant to drink. We use a National Association of Testing Authorities (NATA) accredited laboratory to collect and analyse water samples from our water supply system. This laboratory collected and tested over 7,000 water samples this year, and we monitored and tested the water from over 1,200 randomly selected customer taps in 34 different water quality zones – achieving 100% compliance.

Our Drinking Water Risk Management Plan has been independently audited by Department of Health approved auditors, as required by the Safe Drinking Water Act 2003 and the Safe Drinking Water Regulations 2015. We successfully passed the risk management plan audit in April 2023 with zero non-conformances identified during the audit. Opportunities for improvement related to documenting our good practices and consolidation of documentation were identified and are being actioned.

As part of our routine sampling program, we received an initial E.coli detection on 7 June 2023 in East Warburton. We implemented all required actions outlined in our Water Quality Emergency Response Plan, thoroughly investigated the occurrence, and found that this

detection met the criteria of a 'false positive sample'. We have advised the Department of Health of our conclusion and as a result we have marked this measure as green for this year.

What we've done:

- Conducted routine inspections and maintenance of 13 water storage tanks and conducted major works on 5 tanks.
- Cleaned approximately 1,050 km of water mains, removing natural sediment that can cause complaints.
- Upgraded/commissioned 15 chlorinators across our drinking water network, with planning work underway to complete another 16 chlorinators next year.
- Continued our trial to assess the performance of 5 different types of online water quality monitoring equipment, with planning work underway to install 11 monitors next year.

We regularly report on water quality and more information can be found [here](#).

b Customers who agree we provide great drinking water

Customers want their water to be safe and 'taste good'. We measure taste by asking customers if they agree that we provide 'great drinking water'. This helps us to monitor the quality of our water and understand customer perceptions around drinking water. There are approximately 2 million customers in our service area and each month we survey a range of customers from across our service area on their satisfaction with their drinking water. We survey a statistically valid sample of our customer base which provides confidence in views across the wider community.

The taste of water can be influenced by many factors, including burst water pipes, water treatment and changes in the source of water supply. Taste is also subjective – what's great to some may not be to others.

We don't expect everyone will always be satisfied with their drinking water. For the past 5 years, on average, 91% of customers agreed that we provide great drinking water. The target for this measure has been set on this average. However, we've noticed a decline with 86% of customers currently agreeing that we provide great drinking water. We've reviewed our operations to identify any reasons that may have caused the decline. There were no specific events or major changes outside usual operations to explain the change.

We've undertaken in depth customer research to better understand why we're seeing a decline. The research discovered a range of possible explanations including cultural influences, experiences with water faults, preferences for other drinks and general understanding of water quality and safety. A review of research across the water industry found similar trends. We are developing a plan to address the decline in perceptions.

Outcome 2: Reliable water and sewerage services

Output	Unit		22-23	23-24	24-25	25-26	26-27	27-28
a Customers who experience three or more unplanned interruptions (water or sewerage services)	Number of customers	Target	n/a	<7,000	<7,000	<7,000	<7,000	<7,000
		Actual		4,896				
b Customers who experienced an interruption this year and more than five in total over three years	Number of customers	Target	n/a	<3,572	<3,572	<3,572	<3,572	<3,572
		Actual		2,526				

How is YVW tracking for outcome 2 in the regulatory period so far?



Business comment

a Customers who experience three or more unplanned interruptions

This measure is largely focused on events where the normal supply of water to a customer or group of customers is disrupted. Water interruptions can impact many customers compared to sewerage network disruptions. As a result, most of our improvement initiatives focus on interruptions to water supply.

However, while sewer repeat events are less common, the severity of impact to customers is often more significant. It's therefore important that we also focus on reducing and eliminating high impact repeat sewer interruptions.

Performance for this measure is sensitive to weather conditions, with rainfall and soil conditions impacting water main failures. The target for this measure is based on our 5-year historical average.

What we've done:

- Renewed 31.8 km of aging and poor performing water mains.
- Renewed 45.5 km of aging and poor performing sewerage pipes.
- Inspected 175 km of sewerage pipes to assess their condition and identify potential blockages.

- Inspected 1,442 property connection sewer branches to check the integrity of the pipes.
- Renewed more than 874 property connection sewer branches that impacted customers.
- Installed over 131 water valves to reduce the potential number of customers having their water interrupted.
- Rectified over 1035 valves and 262 hydrants to reduce the potential number of customers having their water interrupted.
- Confirmed the location of over 1,308 valves and 31 hydrants that had been buried or moved, to reduce the potential number of customers having their water interrupted.
- Identified areas with a single source of water supply that were suitable for introducing a backup source of supply to reduce customer impacts.
- Implemented a failure prediction model into our water main renewals program, using machine learning techniques to increase the likelihood of identifying assets to replace before they fail.

b Customers who experience an interruption this year and more than five in total over three years

This measure is aimed at effectively resolving systemic issues to ensure customers don't continue to experience interruptions.

Consistent with the previous measure, this measure is also largely focused on water interruptions which affect more customers compared to sewer failure events. This measure, however, focuses on customers who experience numerous interruptions to their water and sewerage services over a 3-year period. This highlights that there may be an underlying issue causing repeat interruptions.

Performance for this measure is similarly sensitive to weather conditions as rainfall and soil conditions broadly impact water main failures, and we experienced an El Niño event over summer 2023-24, which typically brings drier and warmer weather.

The target for this measure has been set to reflect the 4-year historical average to remove unreliable data during 2015-2017, associated with the transition of maintenance service providers.

What we've done:

The actions listed above for the measure 'customers who experience 3 or more unplanned interruptions' are also relevant to this measure.

In addition, we've created fit for purpose reporting to identify the underlying issue, so we can better tailor work programs to address the specific problem for customers.

Outcome 3: Timely response and repair

Output	Unit		22-23	23-24	24-25	25-26	26-27	27-28
a Customers' satisfaction with the restoration of their services (planned and unplanned interruptions) (Survey respondents answering 'very satisfied' or 'satisfied' via our ongoing survey)	% of customers surveyed	Target	n/a	≥91%	≥91%	≥91%	≥91%	≥91%
		Actual		93%				
b Customers whose water or sewerage service wasn't restored within four hours (planned and unplanned interruptions)	% of customers	Target	n/a	≤4.85%	≤4.85%	≤4.85%	≤4.85%	≤4.85%
		Actual		4.05%				
c Customers whose water or sewerage service wasn't restored within 12 hours (planned and unplanned interruptions)	% of customers	Target	n/a	≤0.35%	≤0.35%	≤0.35%	≤0.35%	≤0.35%
		Actual		0.23%				

How is YVW tracking for outcome 3 in the regulatory period so far?



Business comment

a Customers' satisfaction with the restoration of their services (planned and unplanned interruptions)

Customers told us that 'customer' satisfaction with the restoration of their services (planned and unplanned interruptions)' is the most important measure for this outcome. The target reflects our 5-year average historical performance.

For customers who have experienced water issues in the past 12 months, the most important factor contributing to customer satisfaction was 'reacts quickly to water and sewerage issues'. Each month we survey a sample of customers who've recently been affected by water or sewer works.

From the survey responses, we quantify the overall level of satisfaction with fault calls, emergency field works, water and sewer maintenance and scheduled maintenance. We also use the results to identify opportunities to improve customer experience. This

includes how we resolve issues, the process to restore water and sewerage services, and how we communicate with and support customers.

What we've done:

- Activated our summer escalation plan for unplanned works which ensures we have optimal resourcing in place during this busy period and customers know what to expect regarding repair times.
- Continued to work closely with our maintenance contractors and other delivery partners, to review field processes and practices including communications to our customers.

b Customers whose water or sewerage service wasn't restored within 4 hours

For customers who had experienced an interruption to their service in the past 12 months, the most important factor was to 'react quickly to water and sewerage issues'. The target reflects our 5-year average historical performance.

Our goal is to turn customers' water and sewerage services back on as quickly as possible, and we aim to do this within 4 hours. We have well established processes with our maintenance partners to support this.

What we've done:

- Activated our summer escalation plan for unplanned works which ensures we have optimal resourcing in place during this busy period and customers know what to expect regarding repair times.
- Continued to work closely with our maintenance contractors and other delivery partners, to review field processes and practices and find innovative ways to restore water or sewerage services sooner.
- Implemented a suite of daily performance monitoring reports and automated alerts to identify performance trends.

c Customers whose water or sewerage service wasn't restored within 12 hours

This measure focuses on customers who've had extended service outages. The target reflects our 5-year average historical performance.

What we've done:

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The actions we've listed above for the measure 'customer satisfaction of the restoration of their services (planned and unplanned interruptions)' are also relevant to this measure.

- Activated our summer escalation plan for unplanned works which ensures we have optimal resourcing in place during this busy period and regularly prioritise response crews to minimise the length of a service outage.
- Continued to work closely with our maintenance contractors and other delivery partners, to review field processes and practices and find innovative ways to restore water or sewerage services sooner.
- Implemented a suite of daily performance monitoring reports and automated alerts to identify performance trends.

Outcome 4: Service that meets everyone’s needs

Output	Unit		22-23	23-24	24-25	25-26	26-27	27-28
a Customers' satisfaction with their most recent interaction with us (survey respondents answering 'very satisfied' or 'satisfied' via our ongoing survey)	% of customers surveyed	Target	≥86%	≥86%	≥86%	≥86%	≥86%	≥86%
		Actual		87%				
b Customers, who accessed our support services, believe Yarra Valley Water helped them with their bills (survey respondents answering 'strongly believe' or 'somewhat believe' via our ongoing survey)	% of customers surveyed	Target	n/a	≥92%	≥92%	≥92%	≥92%	≥92%
		Actual		94%				

How is YVW tracking for outcome 4 in the regulatory period so far?



Business comment

a Customers’ satisfaction with their most recent interaction with us

Customers told us that ‘customers’ satisfaction with their most recent interaction with us’ is the most important measure for this outcome. The target for this measure has been set based on our 5-year historical average.

We monitor customer satisfaction across a range of services we provide. Monitoring is done via a monthly survey of customers who have had a service interaction with us. Customers not only provide an overall rating of satisfaction but also more detailed feedback regarding aspects that matter (e.g. professionalism of crews and friendliness of call centre staff).

In addition, we monitor other key drivers of their interaction experience including:

- Effort – did we make more effort than the customer?
- Resolution – was the customer query or issue resolved?
- Empathy – did staff show care towards customers?

What we've done:

- Adopted a customer-centred approach to our technological platforms, with improvements to our online Land Development Portal and MyAccount Portal underway.
- Investigated areas of relatively low satisfaction with interactions across Field Services
- Worked with our field partners to improve communications (so customers know when to expect works) and restoration of the work site once works have been completed.
- Continued to improve interactions with Customer Care, with a focus on reducing wait times and improving enquiry resolution for commercial customers.

b Customers, who accessed our support services, believe Yarra Valley Water helped them with their bills

Our WaterCare support team offers tailored financial support services to customers experiencing hardship. We aim to make sure that everyone accessing WaterCare is satisfied with the support, and most importantly, that we have helped them pay their bill. The target for this measure is based on our 5-year historical average.

What we've done:

- Provided hardship and vulnerability programs for customers who are unable to pay.
- Improved awareness of, and access to, services and programs for customers who experience barriers to our services.
- Partnered with others to ensure customers can access support services more broadly.
- Protected customers who may not have a capacity to pay and not restrict water supply without first understanding their ability to pay.
- Continued to deliver our marketing campaign to raise awareness of support available through our WaterCare program, with a focus on customers eligible for concession discounts this year. The campaign was supported by engagement and community outreach events to directly connect with customers, and we've strengthened our partnerships with community organisations who support vulnerable customers.
- Provided customers with a variety of payment options that suit their circumstances.

Outcome 5: Saving water for the future

Output	Unit		22-23	23-24	24-25	25-26	26-27	27-28
a Water lost from Yarra Valley Water's supply system	% of water available	Target	n/a	≤7.8%	≤7.5%	≤7.3%	≤7.3%	≤7.3%
		Actual		10.0%				
b Recycled water used in areas where it's available	% of total water used	Target	n/a	≥3.7%	≥4.4%	≥4.4%	≥4.4%	≥8.7%
		Actual		1.1%				
c Average household water use (litres per property per day)	Average litres used by households each day	Target	n/a	≤399	≤398	≤396	≤393	≤388
		Actual		386				
d Business customers who use more than 100ML (100 million litres) of water a year, who have an active water efficiency plan	% of customers	Target	n/a	100%	100%	100%	100%	100%
		Actual		100%				

How is YVW tracking for outcome 5 in the regulatory period so far?



Business comment

a Water lost from Yarra Valley Water's supply system

Water lost from our water supply system (such as through leaks and bursts) is measured as the difference between the water we purchase from Melbourne Water, and the water we bill our customers for, or transfer to other water authorities. Water lost from leaks and bursts typically flows into nearby drains, waterways or the groundwater table. It is not feasible to collect and reuse this water – our focus is on minimising any losses through fast identification and rectification of the issue. From January to March 2024 we experienced double the typical volume of burst water mains, and double the volume of leaking water mains.

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The target for this measure is set based on our result from the 2021-22 financial year, the last financial year before we submitted our price submission. The average over the last 5 years was 8.7%, with a range between 7.5% and 10.8%. The period for which the average was calculated included the Covid 19 pandemic, which correlated with changed water use patterns.

In addition to zone monitoring, we physically inspect the water supply network with our Active Leak Detection Program to tackle background leakage. We aim to proactively identify and repair bursts and leaks before they become more significant.

What we've done:

- Continued to implement our District Metered Area (DMA) program, currently covering 42.3% of our network by pipe length. Our District Metering Areas program assists in targeting water leakage by enabling individual zone monitoring of increasing leakage. Through this program the water supply system is segmented into small zones which we remotely monitor daily. Our reporting identifies areas where we may have leaks or bursts which have not been reported, enabling us to deploy leak detection crews to identify the source of the problem. Once identified by these crews, the leaks or bursts are prioritised for repair.
- Developed monitoring of 36 new DMAs in our monitoring systems.
- Continued to work with our maintenance partners to address the increase in rectification times of low priority leaks, and the impact of the summer escalation period.
- Developed reporting to track our Active Leak Detection Program progress to enable efficient prioritisation of the program.
- Introduced new technology to our field team that enables faster detection of leaks.

b Recycled water used in areas where it's available

Customer consultation and research has confirmed that our customers continue to support the supply of alternative, fit for purpose water for a range of uses including flushing toilets, doing laundry, watering lawns and washing cars. We have mandated Class A recycled water for approximately 100,000 new homes in our service area and provide recycled water across our network including Aurora Estate, Epping Northeast, Wollert, Craigieburn West, Croydon/Lilydale (Quarry development), Beveridge/Wallan, Kalkallo, Greenvale and Doncaster Hill.

We currently supply homes in mandated areas via three Class A recycled water treatment plants: Brushy Creek, Aurora and Wallan. Each plant services different areas of our network. If we don't produce enough recycled water to supply the demand of the Class A networks, drinking water is used to ensure continuity of services.

We haven't met our target this year. Contributing factors are:

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- The Aurora Recycled Water Treatment Plant, which supplies most of our recycled water, has been offline for safety and maintenance upgrades since January 2023. It is expected to return to service in November 2024.
- The Brushy Creek Recycled Water Treatment Plant was offline in May 2023 for upgrades in the chemical dosing facility and for a refurbishment of the storage tank. It is expected to return to service in November 2024.

What we've done:

- Provided recycled water to more than 49,000 properties, with significant investment across the recycled water network and treatment plants to increase reliability and production of recycled water.
- We constructed 70km of recycled water mains and connected approximated 4,860 properties to Class A recycled water for non-drinking purposes such as toilet flushing and car washing.
- Conducted approximately 15,780 recycled water audits at customer properties, enabling greater use of recycled water in gardens, laundries and toilets.
- We continued to participate in a recycled water industry working group.

c Average household water use (litres per property per day)

Customers told us that 'average household water use (litres per property per day)' is the most important measure for this outcome. The target for this measure was set based on our water demand and residential growth forecasts. Weather, climate and population growth can impact water usage.

What we've done:

- From 1 July 2023 we combined water usage and sewage disposal charges. This change was based on customer feedback that the sewage disposal charge was complex and difficult to understand. By connecting these two charges we've made usage charges easier to understand and created a stronger financial incentive to save water.
- Implemented a water audit and showerhead pilot program, aiming to reach 1,000 properties by the end of the financial year. On average we estimate this program will save each household 20,000 litres per year.
- Since April 2023, an additional 17 schools in our service area have joined the Schools Water Efficiency Program (SWEP). Currently, 368 schools in our service area have been involved in SWEP since its inception in 2012, saving over 2.2 billion litres of water and avoiding an estimated cost of \$9.3 million.
- Our Water Watchers education program has delivered 687 incursions across schools in our service area since 1 April 2023.
- We've continued to support long-term water resource planning for Melbourne together with Melbourne Water and other retailers.

d Business Customers who use more than 100ML (100 million litres) of water a year, who have an active water efficiency plan

Under the Water Act (1989), we report annually on business customers using more than 100 megalitres a year, and whether they participate in a water conservation program.

We continuously review our large customers' 12-month rolling average to ensure that any new customers who use over 100 megalitres are identified and have an active water efficiency plan.

We also target and monitor customers who use between 90-100 megalitres and ensure they also have active water efficiency plans. The target for this measure has been set based on our 5-year historical average.

What we've done:

- Updated water efficiency templates and questionnaire
- Business Partnership Managers engaged in discussions on customers' Water Efficiency Management Plans (WEMP)
- Reviewed and actioned (if required) ongoing monthly reporting on water usage.

Outcome 6: Looking after our natural environment

Output	Unit		22-23	23-24	24-25	25-26	26-27	27-28
a Hectares of land we actively manage to preserve and restore biodiversity and natural habitats	Hectares of land	Target	n/a	9	11	13	45	47
		Actual		10.6				
b Volume of sewage spills reported to the EPA as having a material impact to the environment	Kilolitres	Target	n/a	≤5,000	≤5,000	≤5,000	≤5,000	≤5,000
		Actual		9,348				
c Number of customers who were on septic tanks and are now connected to the sewerage network	Number	Target	n/a	>200	>200	>200	>200	>200
		Actual		407				
d Percentage of energy requirements met from renewables	% of all energy	Target	n/a	85%	95%	100%	100%	100%
		Actual		85				

How is YVW tracking for outcome 6 in the regulatory period so far?



Business comment

a Hectares of land we actively manage to preserve and restore biodiversity and natural habitats

This measure will help us meet increased legislative responsibilities and increased customer expectations around environmental protection and protection of endangered species and wildlife. The target for this measure is based on the capital and operating investments planned to preserve and restore biodiversity and natural habitats over the period.

A program of works for 47 hectares of land has been proposed during the 2023-28 price submission period. The land will be managed to achieve protection and enhancement of biodiversity outcomes across 14 key sites. These sites are either considered remnant sites (sites

with high remnant biodiversity values) or restoration sites (sites of high strategic restoration value including our sewage treatment plant sites).

What we've done:

At remnant sites (sites with high remnant biodiversity values) we've:

- progressed site investigation and planning work
- progressed stakeholder consultation site by site
- commenced program development
- progressively implemented biodiversity management plans for each site.

At the key restoration sites (sites of high strategic restoration value) we've:

- Started construction of the Wollert Community Farm, which is due to start operations in spring 2024. Interim activities include creek restoration work, planting of 4000 trees and commencement of junior indigenous ranger programs.
- Completed detailed design of wetlands for the Upper Yarra Habitat Restoration, with plans to commence earthworks for wetland construction next summer.
- The Wollert Community Farm includes first Nation-led land management of endangered grasslands onsite as part of our caring for Country approach, through partnering with Wurundjeri Woi-wurrung's Narrap Unit. Wurundjeri's Narrap Unit undertook a cultural burn at the site in 2023.
- We've developed a biodiversity framework and business case to improve land management practices on 1,527 hectares of land we own across Melbourne. Some of this land retains significant biodiversity value and provides habitat for wildlife, including endangered species.
- We've commenced a program to improve weed management, undertake revegetation and restoration of waterways and introduce species monitoring.

b Volume of sewage spills that have a material impact to the environment

We have not met the target this year due to large storms in January 2024, which resulted in significant spills. The target for this measure has been set using an adjusted 3-year historical average. Sewer spills attributed to significant weather events from 2019-20 and 2020-21 or deemed to be a significant avoidable incident have been eliminated, reducing the target from 23,000KL to <5,000KL.

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This measure reflects the volume of raw (undiluted) sewer spills reported to the EPA, that come from our sewer network assets. This measure is highly sensitive to weather events and unanticipated asset failures. The three key drivers resulting in spills are:

- capacity issues in pipelines (63% of total sewage spills)
- capacity issues at sewer pump stations (29% of total sewage spills)
- asset failures due to blockages or loss of power (8% of total sewage spills).

We are experiencing rainfall and storm events with more variability and complexity. As our climate changes, it's likely that intense short duration rainfall events and other extreme weather events will increase. There are assumptions that we must make when designing new assets. This includes government policy on town planning, population growth projections and climate change.

For our highest risk sewer pipelines, we initiate upgrade projects to install replacement pipelines with greater capacity. These projects can take 5-8 years or more to deliver once a capacity constraint is identified, and there are no options for a reduction of spill volumes until they are replaced. These high-risk pipelines are identified ahead of time, and we aim to prioritise them for replacement before any major spills occur.

What we've done:

- Started planning and design system upgrade works on our highest risk pipeline, Darebin Creek North Main. The Darebin Intercepting Sewer (DIS) is expected to take 7-8 years to deliver.
- Started options assessment of our second highest risk pipeline, North Yarra Main. The sewer upgrade capital work is expected to be delivered by the end of 2027-28.
- Completed detailed design of our third highest risk pipeline, the Eley Road sewer branch. Currently the project is at tendering stage and construction of stage 1 of the new Eley Road relieving sewer is planned to commence in the first quarter of 2024-25
- To mitigate the risk of high-risk uncontrolled spills of the Rosanna sewer branch, two new emergency relieving structures will be completed by 2026-27.
- To identify the potential sources of excessive inflow and infiltration to our sewer system, we've planned 2 smoke testing programs for Brushy Creek and Broadmeadows sub-catchments, to be completed by the end of September 2024.
- Worked with our maintenance partners to monitor and ensure ongoing timely reactive maintenance.
- Developed a process for Post Spill Cause Review Investigations to be used following unpredicted wet weather spills. Currently, 3 identified sites are under root cause of spill investigation.
- Cleaned 23.7 km of pipes.
- Cleaned 246 gas check maintenance holes.

- Renewed 45.9 km of aging and poor performing sewerage pipes.
- Inspected 178 km of sewerage pipes to assess their condition and identify potential blockages.
- Inspected 1,411 property connection sewer branches to check the integrity of the pipes.
- Renewed 1,185 property connection sewer branches that impacted customers.

c Number of customers who were on septic tanks and are now connected to the sewerage network

Some homes in Melbourne were built before sewerage infrastructure was available, particularly on the urban fringe. As a result, some homes in outer northern and eastern suburbs use septic tanks to manage their wastewater. We have an ongoing capital expenditure program that provides sewerage services in areas where customers are reliant on septic systems for their waste disposal.

The two main drivers of this measure are:

- Expanding the sewer network to enable more customers to connect.
- Connecting properties to the sewerage network and decommissioning septic tanks. Customers can choose to connect in their own time and there is typically a 6-month lag between sewer becoming available and sewer being connected.

The target for this measure reflects the timing of proposed investments over the 2023-28 period and the historical connection rate.

What we've done:

- Our Community Sewerage Program continues to expand as we create new available connections for over 3,000 properties during 2023-28. In 2022-23, new sewerage services were made available to more than 500 properties in areas including Monbulk, Kallista, and Eltham. We also progressed construction works in Sassafras, Kallista, and Lower Plenty, with almost 700 additional properties expected to connect in 2024 as the works are finalised.
- Our pop-up shop in Monbulk's main street promotes the opportunity for Dandenong Ranges residents to connect to the sewerage network, allowing local residents to drop in to learn more about the program. They can view a full-size replica of the equipment that will go on their property and speak directly with specialist staff to get the answers they need about how to connect.
- We're also working with local councils, the Department of Energy, Environment and Climate Action and the Environment Protection Authority to educate communities about the benefits of the new sewerage systems to drive more connections. This includes written campaigns and visits to local community hubs. Connection benefits are expected to be seen across 2024.

d Percentage of energy requirements met from renewables

We know our operations impact the environment through carbon emissions. Our renewable energy targets are consistent with our obligation under the Statement of Obligations (Emissions Reduction) and our proposed investment program. Our strategy for achieving this measure targets the following areas:

- We consume electricity from two sources, behind the meter renewables and the electricity grid.
- We surrender Large-scale Generation Certificates (LGCs) to guarantee that electricity consumed from the grid is renewable.
- LGCs are acquired through internal production and export of renewable electricity from our generators, or by purchasing from external renewable generators in Victoria.
- Yarra Valley Water purchases accredited GreenPower from our electricity retailer to cover any shortfalls.

What we've done:

Started construction of a second, larger food waste to energy facility to process food waste and create electricity. This will transform up to 150 tonnes of waste per day into 33,000 kWh of renewable energy – around 35% of our energy requirements.

Continued our path of switching from fossil fuels to renewable energy. These initiatives include:

- Sourcing 20% of our renewable energy requirements from the Victorian water industry's large-scale solar farm in north-west Victoria that is facilitated by Zero Emissions Water Ltd.
- Continued to operate our Wollert Waste to Energy facility
- Purchasing more electric vehicles as we accelerate our transition towards a zero-emission fleet by 2030.
- Upgrading our hot water systems from gas boilers to energy efficient heat pumps.
- Installing electric vehicle charging infrastructure to support our zero emissions vehicles, with more to come.
- Moving to the functional design stage to install 3 large market ground-mounted solar systems at large energy consuming water network sites.
- Commissioning a Demand Management System at our Mitcham head office to optimise the efficient use of electricity.