2024–25

DRINKING WATER QUALITY REPORT

icon WATER

Three Rivers by Lynnice Church

This artwork represents the three rivers that connect on Ngunnawal Country: the Molonglo, Murrumbidgee and Yass rivers. The rivers were used as pathways to travel across Country, the small dots represent the pathway and journey of our people to the inner circle that connects those three rivers as a place of gathering. In the middle of the circle the outline of the mountain ranges surrounding Ngunnawal Country are significant in our landscape. These were pathways and places of learning as well. The smaller circles across the picture are symbolic of different places on Country and the importance of taking care of our land, water and the environment to ensure balance, sustainability and cultural knowledge into the future.

Acknowledgement of Country

Icon Water acknowledges the Ngunnawal people as traditional custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

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SUMMARY

EXECUTIVE SUMMARY

At Icon Water we deliver essential water services every day. Central to this is the way we support and protect the community by providing safe, clean drinking water.

To fulfil our purpose, we rigorously manage the delivery of safe and clean water to Canberra and the Queanbeyan-Palerang Regional Council (QPRC). Our drinking water management framework is anchored in a comprehensive monitoring program that assesses water quality across the entire potable (drinking) water production sequence.

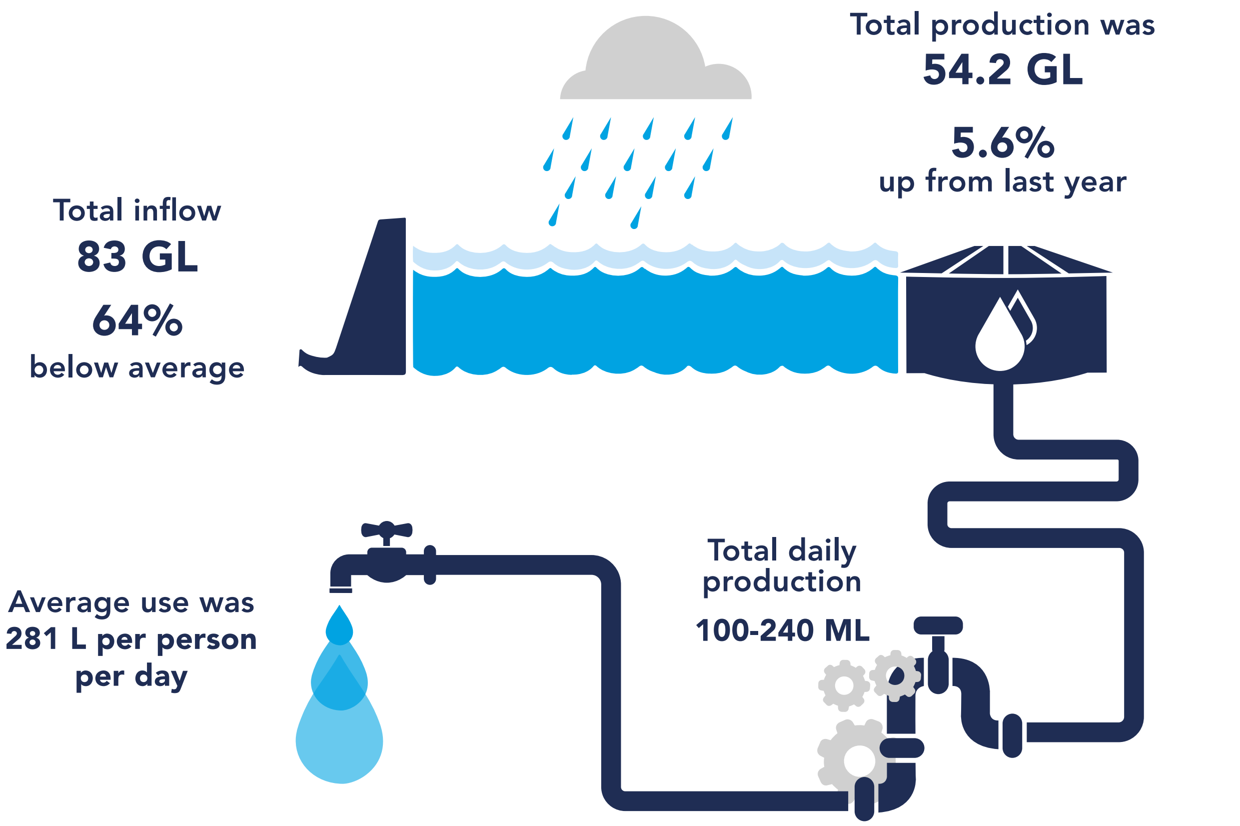
As of the end of June 2025, Canberra's four water storage reservoirs held 91.2 per cent of their total accessible capacity. This marks a slight increase from May 2025, when storage levels dipped to 88.5 per cent due to dry autumn conditions.

During 2024–25, we produced between 100 and 240 megalitres (ML) of drinking water per day for our ACT and Queanbeyan-Palerang customers, totalling 54.2 gigalitres (GL), a 5.6 per cent increase compared to the previous year.

We remain vigilant in monitoring emerging contaminants, applying a precautionary, science-based approach to risk assessment. For example, we have conducted annual testing for Per- and Polyfluoroalkyl Substances (PFAS) in our catchments since 2016. Updated PFAS testing results continue to be published on the Icon Water website. There have been no detections of PFAS in our final drinking water at our Water Treatment Plants (WTPs).

This year, we focused on comparing the quality of treated water received by customers from the Googong Catchment versus the Cotter Catchment. These insights are informing improvement and upgrade plans for the Googong Water Treatment Plant (WTP).

Figure 1. Summary of total storage, production and consumption



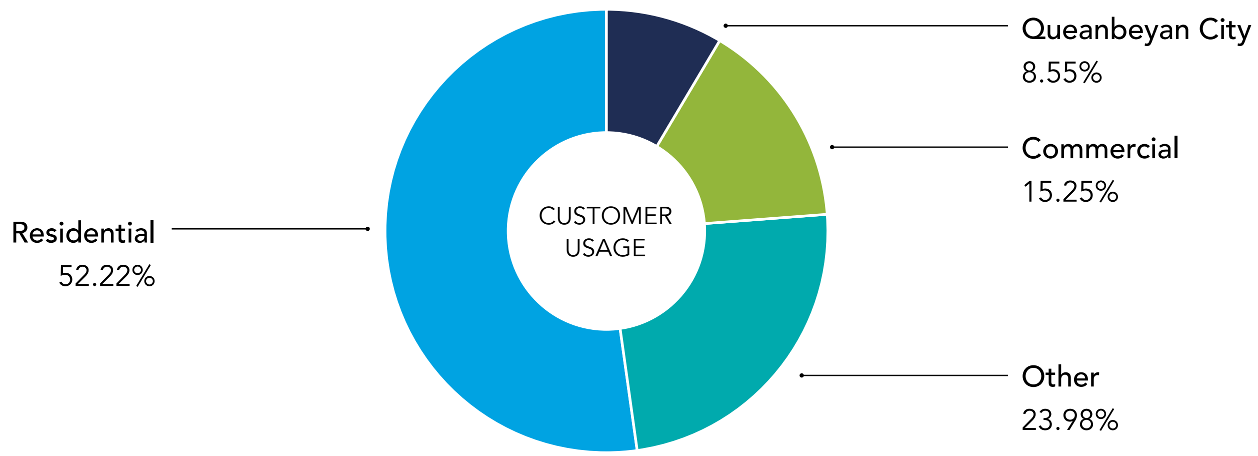
OUR CUSTOMERS

In 2024–25 we supplied potable (drinking quality) water to 206,681 sites within the ACT and Queanbeyan Palerang Regional Council.

These sites include residential dwellings, commercial entities and others like schools, hospitals and community facilities. We also supplied bulk treated water to the city of Queanbeyan, including the Googong Township. Figure 2 shows the split of customer types for sites with allocated water meter/s.

According to the Australian Bureau of Statistics, as of December 2024, Canberra's population was 481,677, while Queanbeyan and Googong had a combined population of 46,325. This reflects an annual growth rate of 1.5 per cent, contributing to an increase in customer connections to the water supply network.

Figure 2. Split of customer types



OUR SUPPLY SYSTEM

The process of providing water to our customers starts by drawing water from our dams.

Our dams (storage reservoirs) impound water from the Cotter and Queanbeyan rivers, and we can also abstract from two locations on the Murrumbidgee River. This ability to abstract from three diverse catchments containing different rivers and tributaries strengthens Canberra's water security in times of drought or if major events like bushfires compromise the source water quality in one catchment. Refer to page 13 for more information about our source water supply.

During 2024–25, the three Cotter River storage reservoirs (Corin, Bendora and Cotter) provided 84 per cent of the water we supplied to customers, of which the majority came from Bendora reservoir. Googong reservoir made up the balance of supply. The Murrumbidgee to Googong Transfer Pipeline (M2G) transferred 192.3 ML during 2024–25 for infrastructure maintenance purposes.

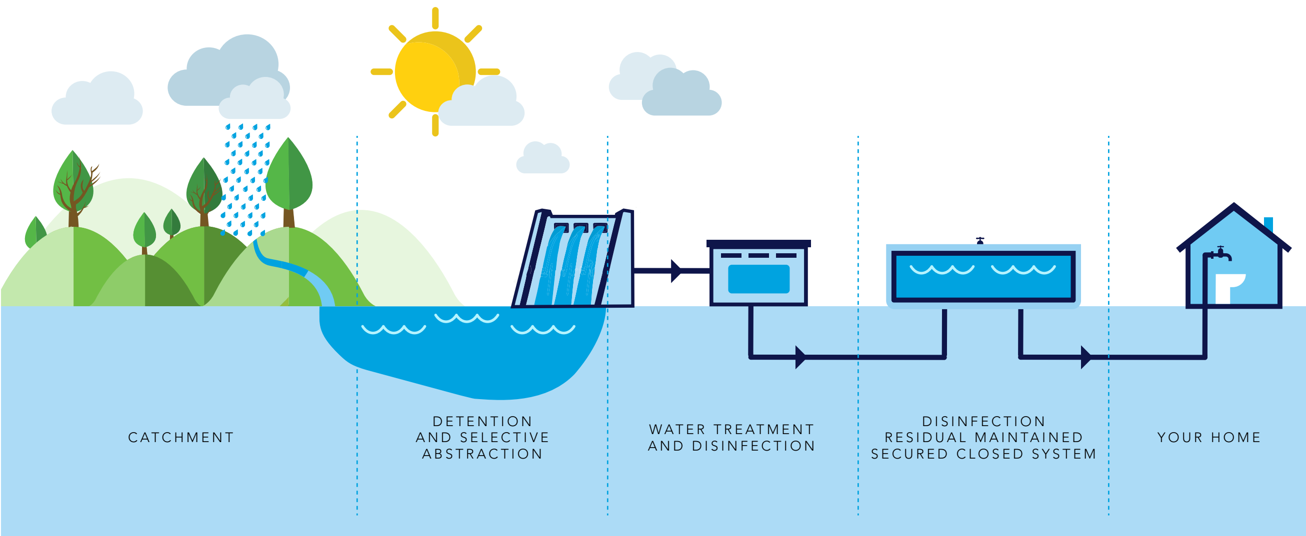
After abstraction, we treat the water to a standard that meets local and Australian health guidelines. We can treat water at either of our two Water Treatment Plants (WTP) at Mount Stromlo and Googong.

During 2024–25 we produced 54.2 GL of treated drinking water – 45.5 GL from Stromlo WTP and 8.7 GL from Googong WTP. Refer to page 20 for more information about our WTPs.

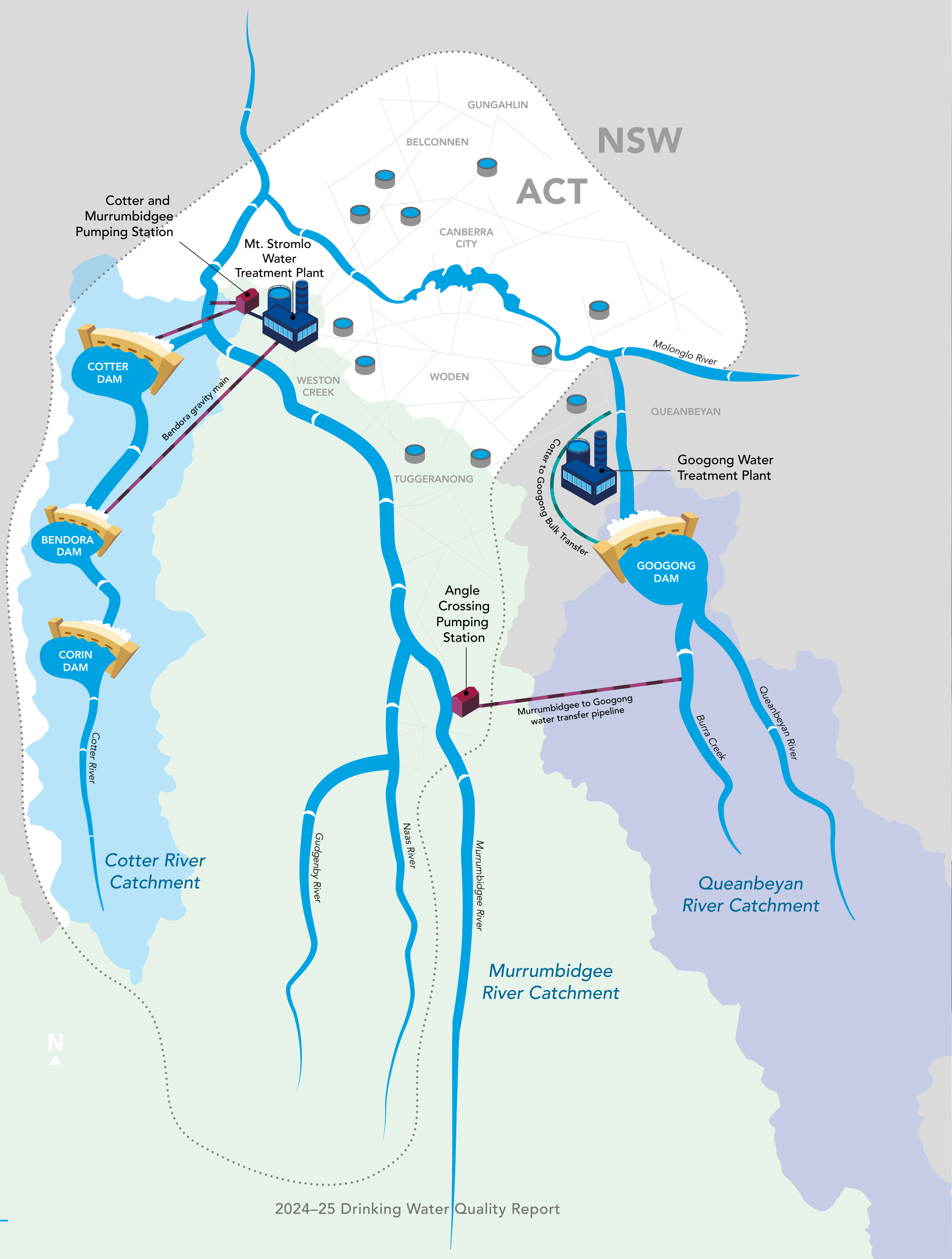
After treatment, drinking water is fed into 50 service reservoirs (tanks) across the region, then into water mains (pipes) which connect to local service lines and finally, to customers' properties. In 2024–25 the average water used was 281 L per person per day while expected demand under prevailing weather conditions was estimated at 289 L per person per day. Refer to page 26 for more information about how water reaches our customers.

The quality of water supplied to customers is protected by a rigorous management framework underpinned by an extensive water quality monitoring program. Our program uses a combination of online automated monitoring and sampling undertaken by an external laboratory that is accredited by the National Association of Testing Authorities (NATA).

Figure 3. Source water supply to our tap



OUR NETWORK


GUNGAHLIN
BELCONNEN
NSW
ACT
CANBERRA CITY
Cotter and Murrumbidgee Pumping Station
Mt. Stromlo Water Treatment Plant
COTTER DAM
WESTON CREEK
WODEN
Molonglo River
QUEANBEYAN
Bendora gravity main
Cotter to Googong Bulk Transfer
Googong Water Treatment Plant
TUGGERANONG
BENDORA DAM
GOOGONG DAM
Angle Crossing Pumping Station
CORIN DAM
Murrumbidgee to Googong water transfer pipeline
Burra Creek
Queanbeyan River
Cotter River
Gudgenby River
Naas River
Murrumbidgee River
Cotter River Catchment
Queanbeyan River Catchment
Murrumbidgee River Catchment
N

HOW WE MANAGE YOUR WATER SUPPLY

STANDARDS WE APPLY TO CANBERRA'S DRINKING WATER

Licences

Icon Water holds the following licences which allow us to operate our drinking water distribution and supply service:

- Utility Services Licence, issued by the Independent Competition and Regulatory Commission (ICRC) under the *Utilities Act 2000*
- Drinking Water Utility Licence, issued by the ACT Health Directorate (ACT Health) under the *Public Health Act 1997*.

We apply quality standards in accordance with the requirements of the *Public Health (Drinking Water) Code of Practice (2007)* (the Code), regulated by ACT Health. Copies of the Code are available from the ACT Legislation Register.

The Code sets out quality standards, and operational, communication, reporting and response requirements for Icon Water and ACT Health to ensure safe drinking water. The Code also sets out specific events or incidents where Icon Water must notify ACT Health.

Under the operating licences and the Code, Icon Water is required to comply with the current National Health and Medical Research Council (NHMRC) *Australian Drinking Water Guidelines 2011* (ADWG).

The Guidelines determine the minimum quality requirements of water in Australia and are regularly revised to reflect the latest scientific evidence. The most recent update was in June 2025.

We apply an Integrated Management System to meet quality, environmental, regulatory and workplace health and safety requirements. We maintain annual certification and comply with the following Australian and international standards:

- ISO 9001:2015 – Quality management systems
- ISO 14001:2015 – Environmental management systems
- AS/NZS 45001:2018 – Occupational health and safety management systems
- HACCP and Good Manufacturing Practice (GMP) – Codex Alimentarius Alinorm 2020/13A.

THE ADWG MANAGEMENT FRAMEWORK

The ADWG, published by the NHMRC, provide a basis for determining the quality of water to be supplied to consumers in all parts of Australia.

Their framework promotes sound drinking water management and, when followed, ensures safe delivery to consumers. The ADWG are not mandatory legally enforceable standards, and their implementation is at ACT Health's discretion.

The Guidelines undergo a rolling revision to ensure they represent the latest scientific evidence on good quality drinking water. In June 2025 the NHMRC published version 4.0 with amendments including:

- review and update of 4 chemical fact sheets: *per- and polyfluoroalkyl substances (PFAS), selenium, lead and manganese*
- new guidance on *metals and metalloids leaching from plumbing products.*

In addition, the Guidelines provide a framework to help us design a structured and systematic approach to preventative risk management of drinking water quality. The Guidelines inform the holistic management of water supply systems including policy, education, customer engagement, system operation, continuous improvement, verification, and assurance activities.

Icon Water's drinking water monitoring program operates via an external NATA-accredited laboratory, which measures the physical, chemical and microbiological parameters of the water we supply to our customers. The results of the program inform how we manage water quality and verify our compliance with the ADWG.

The ADWG include two types of criteria to measure and manage the performance of our water supply system:

- A health guideline value, defined as the concentration or measure of a water quality characteristic that, based on present scientific knowledge, does not result in any significant risk to the health of the consumer over a lifetime of consumption.
- An aesthetic guideline value, defined as the concentration or measure of a water quality characteristic that is associated with acceptability of water to the consumer, such as appearance, taste, and odour.

Providing safe drinking water to customers is our priority

We use a multi-barrier approach, guided by the ADWG and the internationally recognised Hazard Analysis and Critical Control Point (HACCP) framework. Both systems use a preventative risk management approach to ensure the risks to water quality are effectively controlled across the whole supply system.

Our multi-barrier approach starts by applying controls in the source water catchments and continues through each step of the water treatment process.

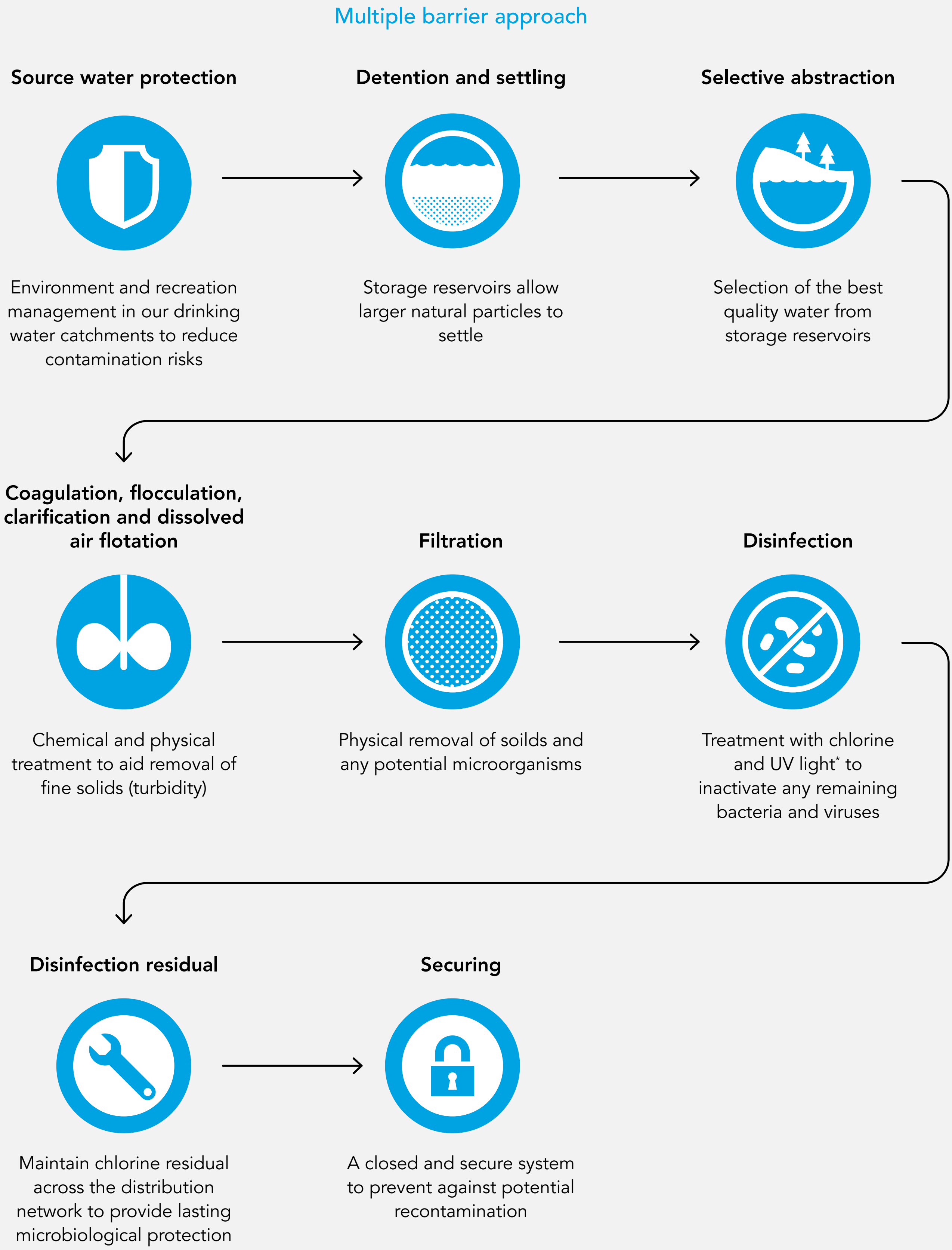
A control may remove a hazard from the supply (e.g. removing particles during water treatment) or include measures that monitor and facilitate early intervention (e.g. sampling and analysis). We don't rely on any single tool or measure to protect public health, and we continuously assess the performance of protection barriers for non-conformance and areas of improvement.

Our barrier control measures are designed to eliminate or minimise real or potential risks to drinking water. To implement this, we set higher targets for product quality than required to meet the ADWG (refer to page 8 for more information about the standards that apply to Canberra's drinking water).

Our multiple-barrier approach includes:

- a source water protection program
- selective abstraction of source water for treatment
- multiple water treatment processes monitored by real-time online analysers, verified with on and offsite water testing
- an enclosed distribution system with strictly limited access for maintenance and inspection
- maintaining residual disinfectant to provide lasting protection in the network
- a routine 'catchment-to-customer' verification sampling program conducted by an independent NATA-accredited laboratory.

Figure 4. Drinking water supply barriers



*UV light treatment at Mount Stromlo WTP only

HOW WE CERTIFY AND AUDIT THE MANAGEMENT OF WATER PRODUCTION

The HACCP system was designed to address risks to food production and has been adapted by the water industry to suit drinking water supply processes.

Certification of our HACCP program is conducted via external auditors. These audit processes strengthen our continuous evaluation and improvement responses across all the barriers in our supply system. In 2024–25 we maintained third-party certification of our HACCP-based risk management system.

In addition to our HACCP certification, each year we conduct an internal audit focusing on one aspect of the management system. In 2024–25 our internal audit concentrated on element three of the ADWG: "Preventive measures for drinking water quality management". Our primary focus was on examining how effectively we are implementing the processes and controls associated with the critical control point of filtration.

WHERE YOUR WATER COMES FROM

SOURCE WATER SUPPLY

Our catchments and reservoirs

Canberra's drinking water is sourced from four main reservoirs with a combined capacity of 277.8 GL. The Cotter River system includes Corin (70.8 GL), Bendora (11.4 GL), and Cotter (76.2 GL) reservoirs, while Googong Reservoir (119.4 GL) is fed by the Queanbeyan River and its tributaries. We also have approval to draw water from the Murrumbidgee River at two locations, although it does not have a dedicated storage reservoir.

During 2024–25, 192.3 ML of water was transferred from the Murrumbidgee River into Googong Reservoir. No water from the Murrumbidgee River was treated at Stromlo Water Treatment Plant.

Much of the Cotter Catchment lies within Namadgi National Park, offering a high degree of natural protection.

The Googong Catchment, on the other hand, encompasses a mix of rural and peri-urban lands across NSW and ACT, requiring collaborative management to address more complex risks.


Corin Reservoir


Cotter Reservoir


Googong Reservoir

CATCHMENT PROTECTION ACTIVITIES

Assessing catchment risks

In 2024–25, a Catchment Sanitary Survey was undertaken across all supply catchments (Cotter, Googong, and Upper Murrumbidgee) to identify contamination risks to drinking water. This involved field assessments and resulted in updates to mitigation strategies across all catchments.

Monitoring and on-ground works

We continue to monitor catchment conditions through ecological surveys, field assessments, and targeted studies. Notably, we supported ACT Government-led erosion control works in the Lower Cotter Catchment and post-fire sediment mitigation in the Upper Cotter Catchment under Commonwealth funding.

Water quality and catchment condition monitoring also continued through our partnership with Upper Murrumbidgee Waterwatch (an initiative jointly funded by the ACT Government and Icon Water) and other ecological programs.

Policy and land management engagement

Icon Water does not own or directly manage land in its catchments. We rely on cooperation with ACT and NSW agencies, landholders, and councils. In 2024–25, we worked with regulators to review proposed developments and activities with potential water quality risks. We also contributed to several planning and policy reviews aimed at ensuring source water protection remains embedded in regional land-use planning.

Collaborative efforts for source water protection

In 2024–25 Icon Water participated in several interagency partnerships, including the ACT and Region Catchment Management Group and the Upper Murrumbidgee Catchment Network.

We also played a key role in reviewing and contributing to national guidance documents, including a WaterRA document: 'Understanding the Impacts of Recreation on Drinking Water Catchments and Storages' (WaterRA, 2025). These collaborations support consistent standards and guidance for water utilities and land managers across Australia.

SOURCE WATER BARRIERS

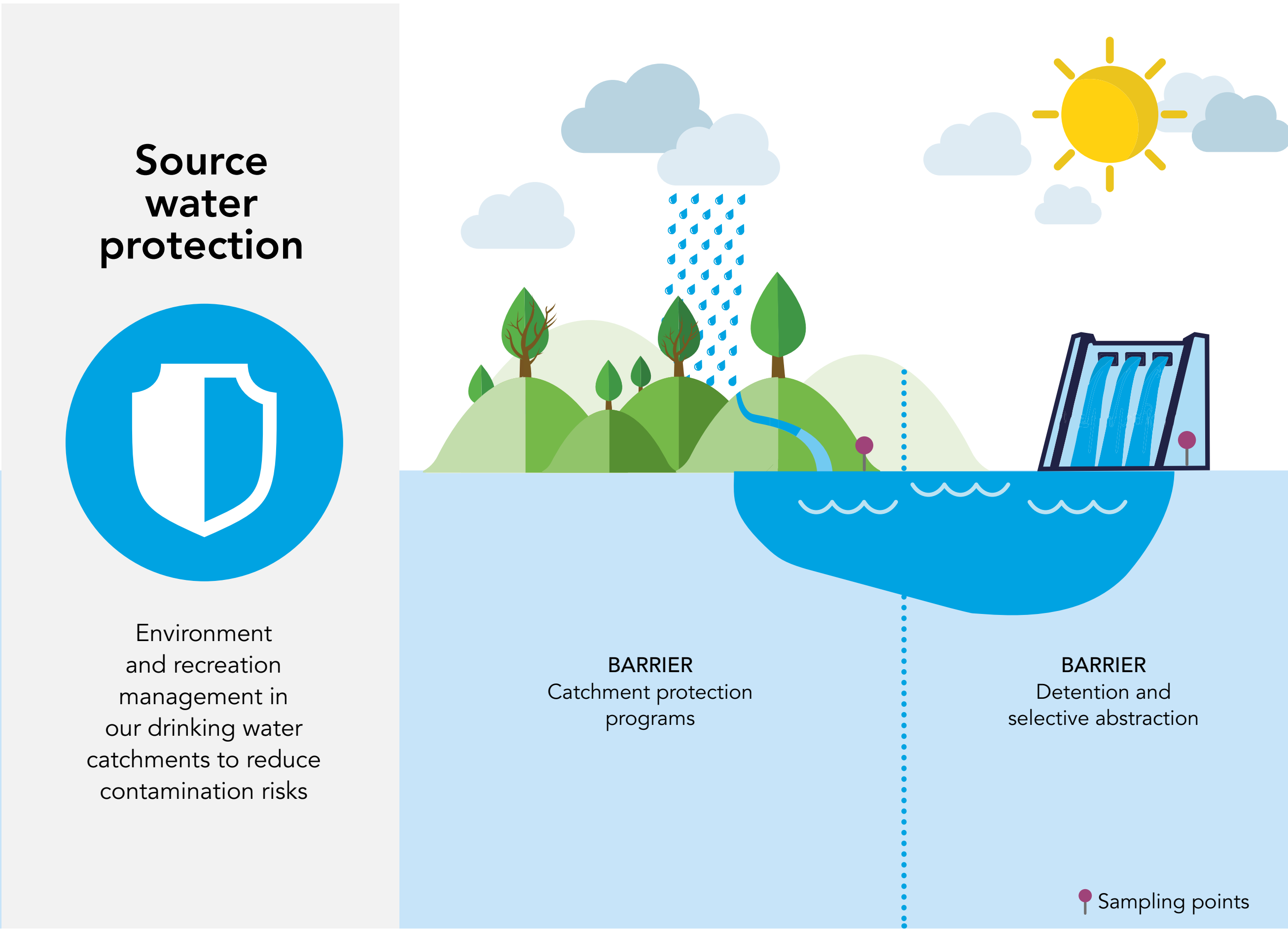
Our multi-barrier approach to managing water quality starts with control measures to protect the quality of our source water.

This includes activities to protect our water supply catchments from microbial pathogens, chemical contaminants and excess nutrients, as well as passive and active controls within the storage reservoir and dam structure.

Controls include:

- detention in storage reservoirs which allows particles to settle and some natural microbiological disinfection to occur
- sampling upstream of our abstraction sites to anticipate potential impacts at the treatment plants
- online monitoring of source water quality (Bendora and Cotter reservoirs)
- avoiding transferring poor-quality source water between catchments and source water storage reservoirs
- selectively abstracting water from the appropriate depth at our dam intake towers to deliver the best available quality to our water treatment plants
- deploying booms and erosion controls in response to major events (such as bushfire or emergency incidents)
- routine inspections for reservoir condition and hazards
- stratification control in the reservoirs.

Figure 5. Our source water protection barriers



Detention and selective abstraction control

Water storage reservoirs are a fundamental part of the quality and security of our drinking water supply system. They store water for use during low rainfall periods and help stabilise water quality through detention and settling of contaminants. This is particularly important after large rain events when inflows can transport high concentrations of sediment and organic material into the reservoir.

We monitor the quality of the water in our catchments via online analysers at Bendora and Cotter, and maintain a routine verification program via a independent NATA-accredited laboratory, which conducts sampling in the reservoir and dam intake towers where we abstract water to send to our water treatment plants.

This water quality sampling is undertaken at various sites throughout the reservoir including at different water depths.

When we abstract from the Murrumbidgee River, we can transfer the water directly to Stromlo WTP for treatment, or to Googong reservoir via the M2G pipeline, to provide long-term water security. Alternately, when we abstract water from our intake towers, we can vary the depth we draw from, which means we always send the best available water to Googong or Stromlo WTPs.

Stratification control measures

Thermal stratification is when a water column is divided into distinct layers due to changes in temperature, oxygen, and density, and is caused by seasonal weather conditions. These layers form distinct water quality zones with different properties, and this has implications for water quality and treatment.

We therefore operate mechanical mixers in the Cotter and Googong reservoirs to keep water circulating and reduce thermal stratification.

By actively managing stratification and minimising these layers, we can increase the amount of oxygen within a reservoir and thus reduce dissolved metal and nutrient concentrations in the abstraction zone. Mixing also promotes environments less favourable for cyanobacteria (blue-green algae) growth. This makes more water available for selective abstraction for effective and efficient treatment.

Figure 6. Selective abstraction

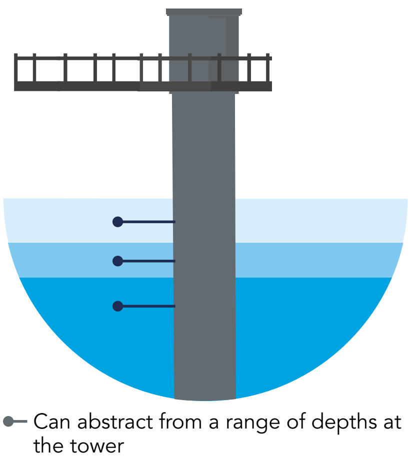
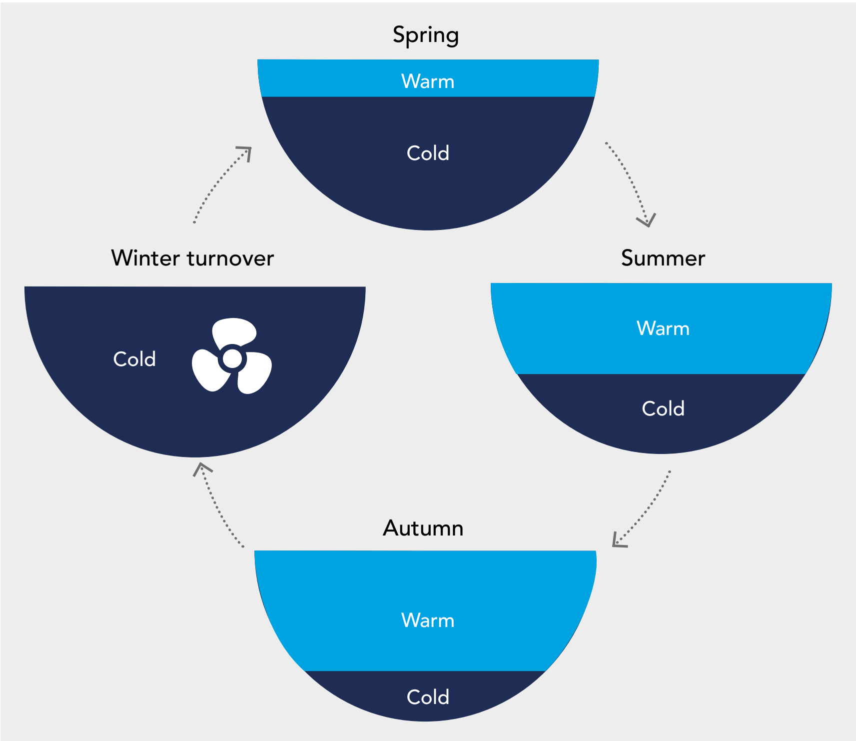


Figure 7. Water stratification process



SOURCE WATER MONITORING

Overview of source water conditions in 2024–25

Source water conditions remained relatively stable throughout 2024–25 as a result of lower than average inflows. Googong catchment continues to improve after a challenging 2019-2023 period of drought and floods. However, higher amounts of chlorine have been needed to maintain residual protective chlorine disinfection in the network. As a result, some customers temporarily received safe, but higher-than-usual chlorine residuals at their connection point in 2024. This was necessary so those located at the furthest ends of our network received above the minimum level of drinking water protection.

We undertake extensive sampling and analysis to monitor water quality in the source water storage reservoirs and the Murrumbidgee River. Our program is adaptively managed to ensure it adequately assesses the quality of source water and identifies emerging issues that could impact the effectiveness of treatment and the safety or aesthetic quality of the drinking water supply, including those identified through catchment sanitary surveys.

The NHMRC specifies criteria in the ADWG for a wide range of measurable water quality characteristics that may affect safety or aesthetic quality. These characteristics fall into several categories, and the key raw-water parameters we routinely monitor are detailed in Table 1.

Table 1. Parameters routinely monitored in source water sources

Microbiological	▪ *Cryptosporidium* and *Giardia* ▪ *Escherichia coli (E. coli)* ▪ Total coliforms	▪ *Enterococci* ▪ Phytoplankton (e.g. Algae cyanobacteria (blue-green algae) and associated pigments (chlorophyll-*aa*)
Physical	▪ Turbidity ▪ Conductivity ▪ Dissolved oxygen ▪ pH	▪ Temperature ▪ UV absorbance ▪ True colour
Chemical	▪ Alkalinity ▪ Nutrients (e.g. nitrogen and phosphorous) ▪ Synthetic organic compounds (including herbicides, pesticides, fungicides, insecticides and industrial chemicals such as PFAS)	▪ Total and dissolved metals e.g. Iron and manganese ▪ Total and dissolved organic carbon ▪ Taste and odour compounds associated with cyanobacteria (Geosmin and MIB)
Radiological	▪ Radionuclides	

The following summaries outline the key components of source water quality that we monitor to maintain and assess the performance of our source water barriers.

Cyanobacteria (blue-green algae)

Cyanobacteria are true bacteria but are often referred to as 'blue-green algae' because they resemble green algae in appearance, habitat and photosynthetic abilities.

Cyanobacteria occur naturally in water bodies, but favour water that is warm, calm and nutrient-rich; in these conditions they can grow in excessive numbers, called 'blooms'.

As well as environmental conditions such as drought and bushfire, the agricultural activities and other development in the Googong and Murrumbidgee catchments can increase nutrient levels in the waterways, making these water sources more susceptible to algal blooms. Our storage reservoirs (predominantly Googong) occasionally experience blue-green algae blooms. These are typically of the *Dolichospermum* and *Microcystis* genera, which can at times produce toxins harmful to humans and animals.

We regularly monitor cyanobacteria, primarily during warmer months when blooms are more likely. Our cyanobacteria response plan may include increased monitoring within the reservoir and at the Googong WTP, and further treatment to ensure drinking water is free from harmful cyanobacteria and cyanotoxins, and to reduce aesthetic impacts.

Under the *Public Health (Drinking Water) Code of Practice (2007)* (the Code), ACT Health is consulted if elevated levels of cyanobacteria are detected.

Concentrations of cyanobacteria in all our catchments were lower in 2024–25 compared to the previous five year period. There were no notifiable cyanobacteria detections within any of our catchments.

Microorganisms

Cryptosporidium and *Giardia* are microorganisms (parasitic protozoan) that can cause gastroenteritis. There is a background level of infection of *Cryptosporidium* and *Giardia* in the general community, and the organisms are usually spread through contact with pets, farm animals or people who are already infected.

Infected people show either no symptoms or may experience diarrhoea, vomiting and fever. Healthy people usually recover fully.

If found in the source water supply these organisms indicate human or animal faecal contamination of the waterway. Beyond testing for the presence or absence of these organisms, more complex investigatory methods are used when required to confirm whether the sample is infectious to humans.

We undertake routine monitoring for *Cryptosporidium* and *Giardia* in our storage reservoirs and the Murrumbidgee River, as well as our WTPs. We also sample for other faecal indicators like *Enterococci* and *E. coli* (which can have both environmental and human/animal source pathways).

Monitoring microorganisms in the source water is important, as it impacts how we design and operate our treatment plant barriers and allows us to emphasise catchment protection mechanisms accurately.

Due to the lower levels of catchment protection and brief detention time, the Murrumbidgee River typically contains higher levels of *Cryptosporidium* and *Giardia* than our storage reservoirs.

The risk increases across all catchments during rainfall events with additional runoff carrying faecal contaminants into the waterways.

As a result, additional monitoring may be conducted if abstracting after high flow events or from the Murrumbidgee River.

During 2024–25, there were no detections of protozoa in any catchment, or within our treatment plants.

Synthetic compound monitoring

Synthetic compounds include items such as pesticides, herbicides, fungicides, insecticides, and industrial chemicals such as PFAS.

We conduct specific monitoring in all drinking water catchment sources for these groups of parameters using a risk-based approach. We also maintain relationships with land managers and the surrounding community to protect our source water from these types of contaminants.

PFAS are a group of several thousand synthetic human-made chemicals that have been in use since the 1940s. PFAS chemicals include perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS) among a large group of other compounds. They are long-lasting chemicals that are thermally and chemically stable, and can repel, water, heat, stains and grease.

PFAS chemicals are not added to Canberra's drinking water. They are chemicals that are found in hundreds of everyday household and industrial products. This includes some sunscreens, cosmetics, clothing, carpet, non-stick frying pans, paint, dental floss, food packaging, feminine hygiene products and fire-fighting foams.

The characteristics of PFAS that make them so versatile also mean they are slow to break down within the environment.

The testing limit for PFAS has improved over time and this year we adopted a more sensitive methodology to be able to test for the most prevalent types down to as low as <0.002 micrograms per litre (µg/L). This means the instrumentation can detect the equivalent of one drop in ten Olympic swimming pools worth of water.

In June 2025 the NHMRC updated the health-based guideline values following a national consultation period. The health based value was updated and new values for additional compounds were included into the Guidelines. The ADWG 2011 v4.0 specify limits for PFOS, PFOA, PFHxS and PFBS in drinking water. The current values are:

- PFOS should not exceed 8 nanograms per litre.
- PFHxS should not exceed 30 nanograms per litre.
- PFBS should not exceed 1000 nanograms per litre.
- PFOA should not exceed 200 nanograms per litre.

Canberra's water supply catchments contain predominantly conservation and low intensity agricultural land use activities, without industrial activities typically associated with PFAS generation. This puts us in a good starting position for source water quality.

While the ADWG only apply to final drinking water, we have been conducting routine annual sampling since 2020 in our source water catchments with all test results including 2024-25 below the ADWG limits. In 2024 we began testing more frequently and commenced testing water at our treatment plants. There were no detections of PFAS including PFBS in tests of the final drinking water supplied from our treatment plants for distribution to customers.

HOW YOUR WATER IS TREATED

WATER TREATMENT PLANTS

Icon Water operates two water treatment plants (WTPs), one located on Mount Stromlo (ACT) and the second adjacent to Googong Dam (NSW).

We abstract raw water from our source water storage reservoirs and treat it at one of our WTPs before we send it to the community.

Stromlo WTP has operated since 1967, was rebuilt in 2004, and can treat water from the Cotter Catchment and the Murrumbidgee River. Stromlo WTP can treat 250 ML of water per day and is the preferred WTP as water can be supplied by gravity from Bendora reservoir, which is more sustainable and economical.

Googong WTP has operated since 1979 and can treat up to 270 ML of water per day from the Queanbeyan River Catchment and indirectly from the Murrumbidgee River (via the M2G transfer pipeline).

The two WTPs can be operated independently or in conjunction with each other to meet the community's water supply demand.

Googong WTP operated between August and October 2024, producing 8,722 ML (16 per cent of annual total production), with Stromlo WTP operating for the remainder of the period, producing 45,496 ML (84 per cent of total annual production, see Figure 8).

The two plants did not run concurrently over the year. The production at our treatment plants varies to meet customer demand throughout the year and seasons. Production over the period ranged between 100 ML and 240 ML per day, with a higher peak demand than the previous year.

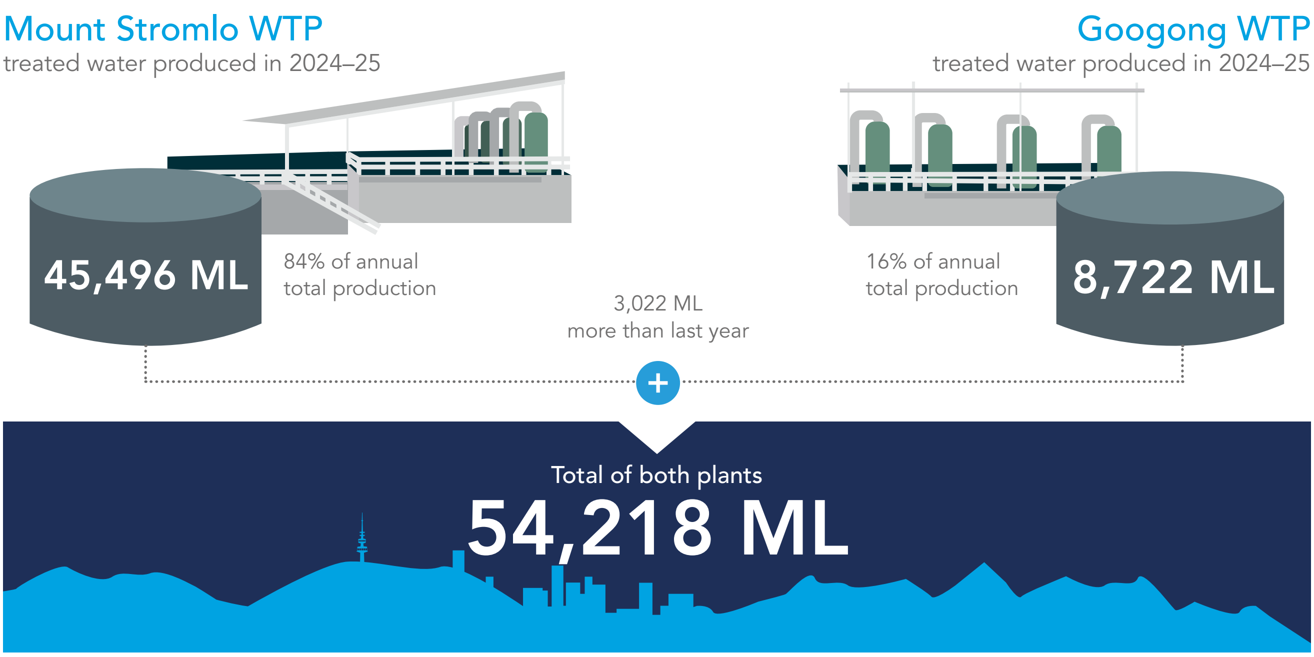
Summary of our treatment process

Due to their age and the difference in the characteristics of source water they treat, the plants operate slightly differently, including the treatment barriers in place.

Stromlo WTP can operate in two process modes – direct filtration or dissolved air flotation and filtration. Dissolved air flotation is an optional treatment step that provides extra capabilities when incoming raw water is lower quality. For disinfection, Stromlo WTP has both chlorination and ultraviolet (UV), which deactivates microbiological organisms that remain after filtration. Figure 9 shows the treatment barriers for Stromlo WTP.

Googong WTP has an optional treatment step using powdered activated carbon (PAC), which may be used to remove some of the taste and odour compounds prevailing in the Queanbeyan River Catchment. Googong WTP does not have UV disinfection. The treatment process is shown in Figure 9.

Figure 8. WTP drinking water production volumes



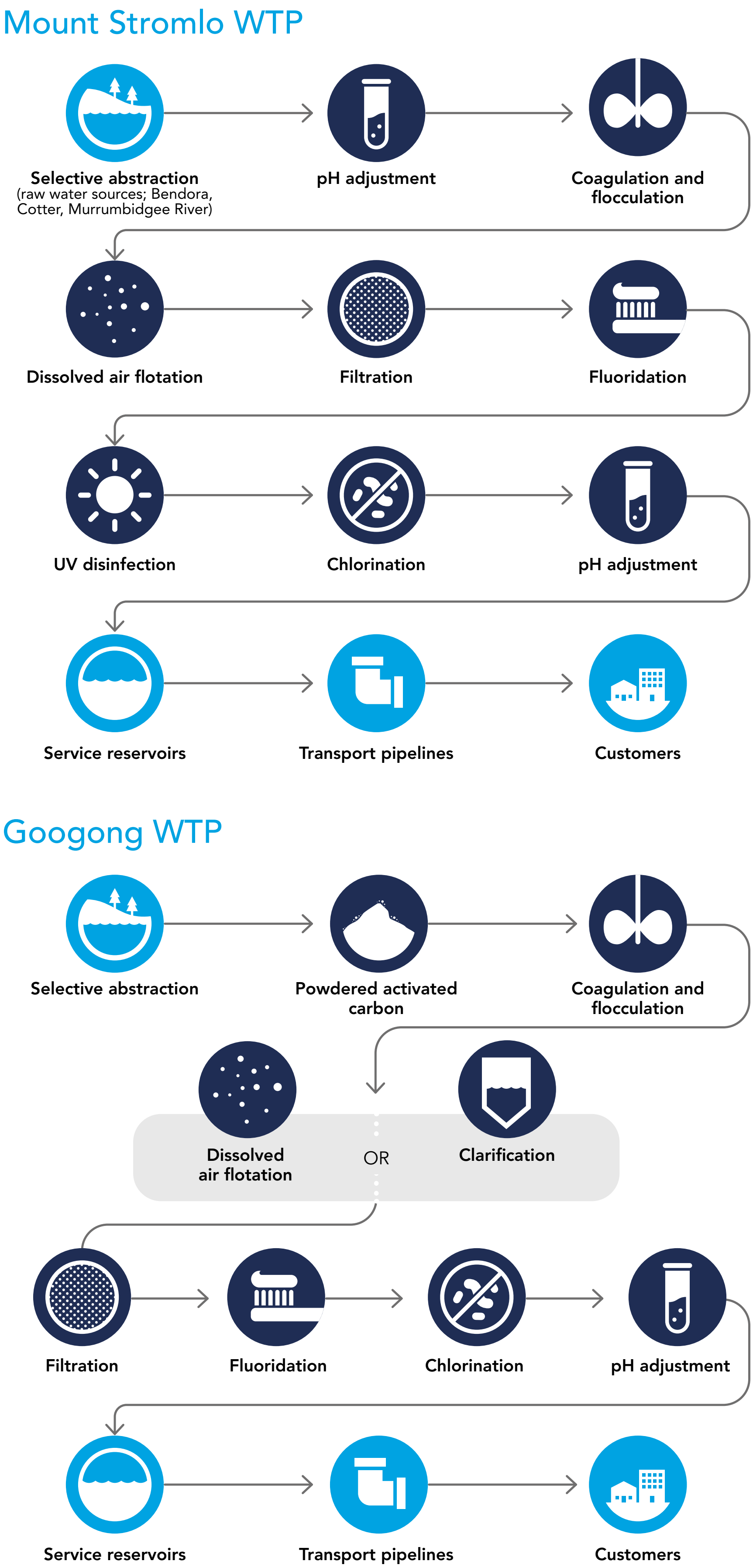
Treatment steps at Mount Stromlo WTP

- Selective abstraction (raw water sources: Bendora, Cotter, Murrumbidgee River)
- Pre-treatment for pH adjustment and stabilisation with lime and carbon dioxide
- Coagulation by polyaluminium chloride and/or aluminium sulphate
- Flocculation aided by polyelectrolyte
- Optional dissolved air flotation
- Filtration
- Fluoridation by sodium fluorosilicate
- Disinfection by ultraviolet (UV) light
- Disinfection by chlorination
- pH adjustment and stabilisation with lime
- Distribution to the network

Treatment steps at Googong WTP

- Selective abstraction (raw water source: Googong)
- Optional powdered activated carbon for cyanobacteria and taste and odour compound removal
- Optional pre-treatment for pH adjustment with lime
- Coagulation by aluminium sulphate
- Flocculation aided by polyelectrolyte
- Dissolved air floatation and filtration; or clarification and filtration, depending on operational mode
- Fluoridation by sodium fluorosilicate
- Disinfection by chlorination
- pH adjustment and stabilisation with lime
- Distribution to the network

Figure 9. Water treatment steps of water supplied from WTPs to customers



MONITORING AND MAINTAINING OUR TREATMENT OPERATIONS

We closely monitor WTP operations to ensure each treatment barrier works effectively.

Under our HACCP-based water quality management system, five critical control points are applied in the drinking water supply system. Four of these exist within the WTPs, highlighting the importance of water treatment operations in delivering safe drinking water.

Both WTPs contain analysers to continuously monitor key water quality parameters, so we can rapidly respond to changes in the raw or treated water quality.

Our dedicated treatment operators run and monitor plant processes to ensure the supply is not compromised by any single point of failure. Electrical, instrumentation and automation teams calibrate and maintain these control systems, while the maintenance team runs a scheduled service and repair program. Together, these teams ensure our control systems perform effectively and produce high-quality water within our specifications.

In addition to continuous monitoring by operators onsite, we verify these results through testing conducted by our external NATA-accredited laboratory. These parameters are detailed in Table 2, and are used to manage critical treatment steps, including filtration, fluoride management, UV disinfection and chlorination. In 2024, we began testing water at the treatment plants. There have been no detections of PFAS in our final treated drinking water supplied from our treatment plants for distribution to our customers.

Table 2. Parameters routinely monitored at the water treatment plants

Microbiological	▪ *Cryptosporidium* and *Giardia* ▪ *Escherichia coli (E. coli)* ▪ Total coliforms ▪ Heterotrophic plate counts
Physical	▪ Turbidity ▪ Temperature ▪ True colour ▪ Conductivity ▪ pH ▪ UV absorbance ▪ Total dissolved solids
Chemical	▪ Chlorine ▪ Fluoride ▪ Alkalinity ▪ Total and dissolved metals ▪ Total and dissolved organic carbon ▪ Hardness ▪ Synthetic organic compounds (including herbicides, pesticides, fungicides, insecticides and industrial chemicals) ▪ PFAS ▪ Trihalomethanes ▪ Haloacetic acids

Controlling physical water quality parameters

Turbidity

Turbidity is a measurement of the light-scattering property of water caused by suspended particulates. These include suspended colloidal particles, clay and silt. Water treatment plants are designed to convert dissolved components into a solid form that can be coagulated and flocculated with other particles and any pathogens present in the raw water. These aggregates (flocculant) are formed and removed from the raw water via filtration. The filters at our water treatment plants serve as a critical safety barrier and a vital control point.

We use turbidity as a key indicator of filter performance. The ADWG recommends the turbidity of water leaving individual filters should be less than 0.2 NTU and should not exceed 0.5 NTU at any time.

During 2024–25, both WTPs maintained average turbidity levels well below the maximum limit. The annual average turbidity for individual filters at Stromlo WTP was between 0.05 and 0.15 NTU, and the plant-wide annual average for all filters approximately 0.09 NTU. Googong WTP's annual plant average was approximately 0.22 NTU.

pH

While not considered a direct barrier to the safety of supplied drinking water, pH plays an important role in maximising the effectiveness of other treatment controls.

We use lime to control the pH of raw water entering our WTP to optimise the coagulation and flocculation treatment steps which remove solid particles. We adjust the pH again before treated water leaves the WTPs to ensure effective disinfection potential while drinking water travels through our distribution pipelines.

Consistent with the ADWG the pH range we target for drinking water when it arrives at the customer supply point is between 6.5 and 8.5. The average pH of the final treated water at Stromlo was 7.27 and for Googong WTP was 7.15 during 24–25.

Controlling microbiological water quality parameters

We have two barriers that control microbial contaminants in our raw water. Our primary barrier is filtration to remove microbiological organisms attached to solid particles. This is followed by a disinfection treatment step to deactivate or kill any remaining organisms. Stromlo WTP has the disinfection treatment option of Ultra Volet (UV) light and has an immediate but no residual effect for disinfection. Chlorine disinfection is used at both WTPs to provide a residual effect in water travelling to customers' connections.

Chlorine

Chlorine is widely used in treatment plants throughout the world. We add chlorine gas to our water to provide a chlorine residual for lasting protection against contamination in the distribution system. Critical controls are in place to ensure the level of chlorine in the water is safe to drink and performing as an effective barrier.

The ADWG has a health limit of 5 mg/L of free chlorine. During 2024-25 the average of free chlorine concentration in the drinking water leaving Stromlo WTP was 1.54mg/L. Due to its different raw water characteristics and longer transit time within the distribution system, final treated water from Googong WTP generally has a higher free chlorine concentration (averaging 2.32 mg/L in 2024–25).

As all drinking water processed by our WTPs is disinfected using chlorine, customers who choose to adjust their water to a different standard (for example, brewers or aquarium owners) should be mindful that chloramine is not used within Canberra's drinking water system.

Ultraviolet light

UV disinfection is used at Stromlo WTP to further reduce the risk of pathogens entering the drinking water supply. UV lamps provide a 'UV dose' to the water to irradiate and inactivate microorganisms by damaging the nucleic acids that form their DNA.

The quality of filtered water passing through the UV reactor can influence how effectively the dose penetrates the water. We monitor the quality of water entering the reactor via online sensors, and then adjust and optimise the power of each UV lamp to ensure the required dose is maintained based on flow rate. ACT Health set the benchmarks for the irradiance dose.

This treatment step continued to meet the ACT Health performance objectives in 2024–25, with 99.7 per cent of the treated water receiving a dose greater than the target value.

Additional treatment – addition of fluoride

The Drinking Water Utility Licence, issued by ACT Health, requires fluoride to be added to the ACT's drinking water system at a concentration between 0.6 and 1.1 mg/L.

The aim of water fluoridation is 'the process of adjusting the amount of fluoride in drinking water' (NHMRC, 2017). To achieve compliance with our licence, we add sodium fluorosilicate to the drinking water at our WTPs.

Fluoride is monitored as a critical control point to ensure the concentration in the water is safe and meets the requirements of our licence.

In 2024–25 fluoride concentrations in the treated water at Stromlo and Googong WTPs averaged 0.72 mg/L and 0.70 mg/L respectively.

UV trains

HOW WATER GETS TO YOUR HOUSE

DELIVERING WATER TO YOUR DOOR – PIPES, PUMPS AND TANKS

Icon Water distributes water throughout Canberra using an extensive network of pipelines and service reservoirs. We also supply bulk water to Queanbeyan-Palerang Regional Council, which distributes the water to Queanbeyan city including the Googong Township.

We operate and maintain 50 service reservoir sites, 25 pump stations and approximately 3,400 km of water pipelines. This infrastructure is maintained and closely monitored and includes a number of physical and chemical control measures to protect against potential contamination.

Our water quality protections measures include:

- The water distribution system is closed between the WTPs and customers' properties which prevents external contaminants from entering the treated water.
- Water mains are operated under positive pressure to prevent contaminants from infiltrating pipes.
- Backflow prevention devices are installed at customer supply points to protect against contaminants.
- A small amount of the chlorine added at WTPs remains within the water distribution system to prevent microbiological growth or establishment while the water moves to customers' properties.

Service reservoirs

Potable (drinking quality) water from our WTPs is fed into service reservoirs (tanks) that are spread out across the city. These reservoirs provide temporary storage to manage the variation in Canberra's demand for water across 24 hours, as well as emergency storage for urban firefighting. Tanks also provide water pressure when customers turn on their taps. From these tanks, water mains carry drinking water to houses, businesses and properties throughout Canberra.

We have 50 reservoirs currently in service to supply potable water in the distribution network. They range in age from 109 to four years old. Our reservoirs stored up to a maximum of 639.5 ML of potable water at any given time in 2024–25.

All service reservoirs are secure structures to protect the integrity of the distribution system and prevent contamination. We inspect them regularly to assess the security of the sites and their external condition. Each reservoir is cleaned, on average, every five years.

When this happens, we empty the reservoir, inspect its condition, clean it, and perform maintenance as required. Before returning the tank to the supply system we disinfect the reservoir and test the water quality in the freshly filled tank.

Supply to customers' properties

On average, new urban development adds 45 km of new distribution pipework each year. New suburbs under development such as Taylor and Jacka stage 2 in the city's north, Strathnairn and Macnamara in Belconnen and Denman Prospect and Whitlam in the Molonglo district are examples of extensions to the water supply network.

The network varies by materials, construction methodology and age, and we have factored these variables into our predictive modelling to determine which parts of the network to schedule for inspection, maintenance or replacement. We have a rolling replacement program for pipes which are approaching their end of life or susceptible to failure (bursts).

One group of pipes identified for replacement are the cast iron unlined water mains, which remain in place from our city's early establishment and typically contain deposits of rust. Replacing these improves water quality consistency because when the rust is disturbed during high demand (like when a pipe breaks or during firefighting), customers' water is often turbid (dirty and discoloured) and can cause staining.

Another suite of scheduled pipe replacements involves water mains installed between 1965 and 1978. This group of mains accounts for approximately three quarters of structural failures in the distribution network. As part pf the upgrade works, individual customer service lines connected to these mains are also being replaced.

MONITORING THE DISTRIBUTION SYSTEM

As part of our commitment to quality, we undertake a comprehensive routine drinking water quality monitoring program based on criteria set by the ADWG to verify water quality throughout the distribution system.

We monitor water quality routinely at each reservoir (tank) to verify that the water complies with the ADWG and to optimise system operations. The quality of water travelling through the pipework is monitored at approximately 360 locations across the city. To ensure a statistical representation of the water received by customers, a selection of customers participate in a voluntary program where their garden tap water is sampled randomly throughout the year.

Each month, we collect a minimum of 100 samples from customer garden taps throughout Canberra

The monitoring includes a variety of physical, microbial and chemical parameters. We compare the results to criteria set by the NHMRC within the ADWG. The key parameters routinely monitored are summarised below.

Disinfection in the distribution system

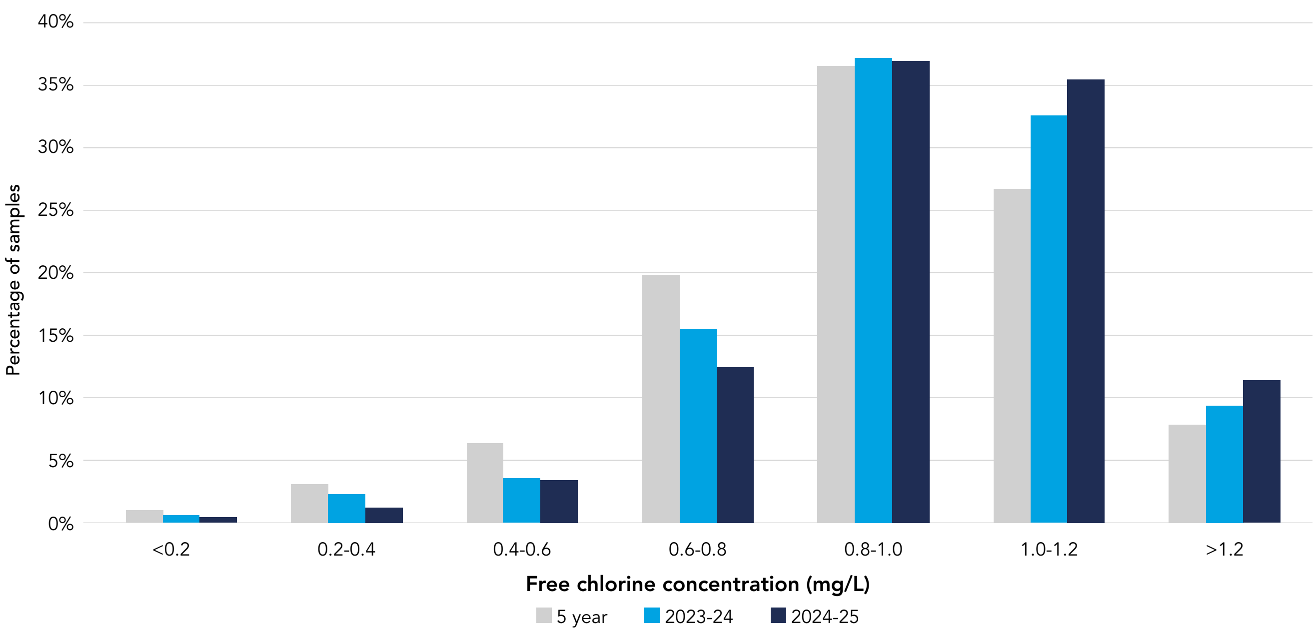
Chlorine is added to water in the final stages of treatment at Stromlo and Googong WTPs. This process is detailed on page 21. Sometimes customers in one location can taste more or less chlorine than another location. This is because chlorine dissipates as the water travels through the distribution network and in different temperature conditions.

When making decisions about the chlorine concentration leaving our WTPs, we factor in transit times and seasonal temperature variations to minimise aesthetic impacts for our customers. However, given water transit times can vary depending on how much water the community is using and seasonal factors, sometimes we need to increase the concentration at our WTPs or boost the concentration in an area of our network. We always prioritise protection of public health for the entire network over aesthetic considerations relating to chlorine.

Chlorine is monitored frequently; when chlorine levels drop we can boost disinfection levels at service reservoirs using sodium hypochlorite. The ADWG has set a chlorine health guideline limit of 5 mg/L. In 2024–25, the average free chlorine concentration was 0.99 mg/L across the customer tap sampling program, with the highest concentration being 1.84 mg/L. See page 40 (Laboratory analysis section) for more information.

The distribution of chlorine results for customer taps across all the network is shown in Figure 10.

Figure 10. The distribution of chlorine concentration in monthly network monitoring samples



Microbial monitoring

The WTPs are designed to deactivate and remove microbial contaminants from water before it is distributed to customers. As the water moves through the system there remains a small potential for contamination or microbial growth.

Therefore, we conduct verification monitoring of *E. coli* (faecal indicator) at customers' connections to ensure the water is free from harmful microbiological contamination.

The ADWG suggests that *E. coli* should not be detected in a minimum 100 mL sample of drinking water. The Code requires Icon Water to notify ACT Health of any *E. coli* detections in the treated water. Our supply was 100 per cent compliant for all *E. coli* tests.

Monitoring physical parameters

Turbidity is a physical parameter that measures the suspended and dissolved particulates in water.

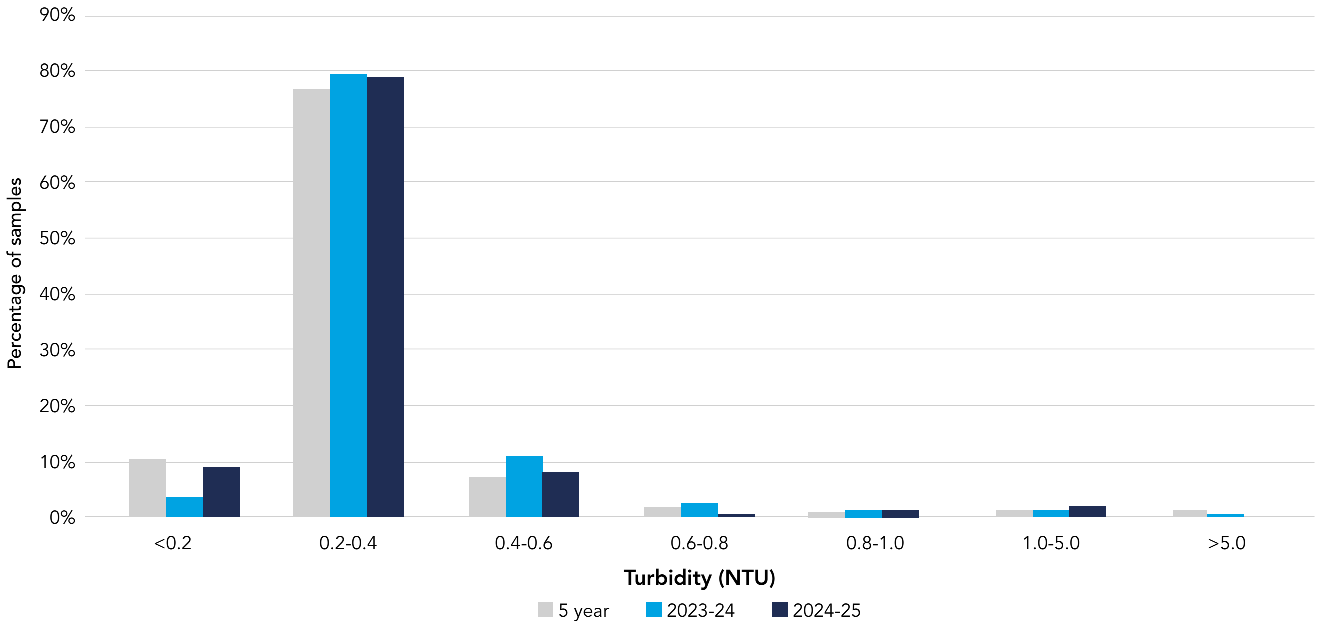
Turbidity can increase as water passes through the distribution system, usually because of resuspension of natural minerals that have settled over a long period of time. Elevated turbidity levels may be temporary, associated with a water main burst or when sudden demand is placed on the network.

The ADWG does not outline a turbidity health guideline, however the aesthetic guideline value is five nephelometric turbidity units (NTU) – a level that is just noticeable in a glass of water. During 2024–25 the average turbidity at participating customers' taps was 0.43 NTU.

Colour is mainly present in the raw water due to natural organic compounds, from small hydrophilic acids, proteins and amino acids to humic and fulvic acids. These compounds originate from organic matter in the catchment. Most natural organic matter is removed by coagulation in the water treatment plants.

The ADWG does not outline a colour health value, however the aesthetic guideline for true colour is based on what is just noticeable in a glass of water. Results are reported in platinum-cobalt units (Pt-Co) and the aesthetic guideline is 15 Pt-Co. During 2024–25 the average true colour measured at participating customers' taps was <1 Pt-Co.

Figure 11. The distribution of turbidity values across monthly network monitoring samples



Metals

Iron

Iron in the soil of the catchment dissolves into raw water within our dams, but can also arise in the distribution system from the corrosion of iron or steel pipes, including components of plumbing systems. Iron can contribute to the formation of mineral deposits on the inside of pipes, which may detach during high flows and appear as temporary discolouration. It can also affect the taste of the water. We undertake a planned program of works to replace sections of corroded pipe, which helps lower metal concentrations.

The ADWG does not outline a health value for iron, however the aesthetic guideline value is 0.3 mg/L, which is based on the taste threshold in water. In 2024–25 the average concentration of iron measured at participating customers' taps was <0.01 mg/L.

Manganese

Manganese is commonly present in water sources in low concentrations, and is detected in higher concentrations when under anoxic conditions, like at the bottom of deep reservoirs. Like iron, manganese can also contribute to the formation of deposits on the inside of pipes, which may temporarily discolour water when flows are disturbed.

The ADWG provide both a health and an aesthetic value for manganese. The health guideline value is 0.1 mg/L. Levels above the ADWG aesthetic guideline level of 0.05 mg/L can cause an undesirable taste and stain clothes during washing. During 2024–25 the average concentration of manganese measured at participating customers' taps was 0.005 mg/L.

Copper

Copper is found naturally in raw water, generally in low concentrations. Water from customers' taps may contain higher levels of copper if the water has been in contact with copper plumbing and fixtures such as hot water systems. Copper levels increase when water stagnates in the plumbing system for long periods, for example if residents are away on holiday. Water with a high level of copper often has a blue-green appearance.

The ADWG health guideline value for copper is 2 mg/L. The ADWG aesthetic guideline value for copper is 1 mg/L which can contribute to staining on plumbing fixtures such as taps. During 2024–25 the average concentration of copper measured at participating customers' taps was 0.014 mg/L.

Lead

Lead is found in the catchments as a naturally occurring metal, and household plumbing systems are another source. Lead is used to manufacture a range of plumbing products such as brass fittings. Lead can dissolve into drinking water if it has been sitting in contact with these brass fittings for a long time.

The Australian Government Department of Health recommends flushing cold water taps used for drinking and cooking for about 30 seconds first thing in the morning and for at least two to three minutes after periods of absence. This draws fresh water from the network into the tap and reduces potential exposure to lead and other metals such as copper and nickel that may have stagnated within household pipes.

The ADWG set a health limit for lead of 0.005 mg/L. During 2024–25 the average concentration of lead measured at participating customers' taps was 0.0003 mg/L.

Other compounds

We monitor various other substances in the distribution system including a range of semi-volatile organic compounds (SVOCs) and disinfection by-products in line with the ADWG. Plasticisers and hydrocarbons are common sources of SVOCs. Plasticisers are used in a broad range of products including some pipework, while hydrocarbons can be used as an indicator of contamination permeating the wall of some pipe materials and fittings.

Disinfection by-products are chemicals with health values in the ADWG. Under suitable conditions these chemicals can form as a result of the water treatment process. We monitor for these compounds at the WTP and across the distribution network.

A summary of all routine monitoring results are presented in the Laboratory analysis section on page 40.

HOW WE ENGAGE WITH OUR CUSTOMERS

Credit: Andrew Sikorski, Art Atelier Photography

EXTERNAL EDUCATION AND TOUR PROGRAMS

Our education program continued to provide valuable learning opportunities across the Canberra and Queanbeyan regions, engaging primary, secondary and tertiary students, as well as industry groups.

We focused on source water protection, water quality, catchment management, and the urban water cycle. These initiatives support long-term sustainability and help build community understanding of the urban water network.

To support flexible learning, we offer a hybrid model of digital resources and site tours tailored for industry representatives and other key stakeholders. Demand for digital resources remained strong in the education section of our website, and we continued to develop downloadable factsheets and classroom activities.

We engaged the community in science, technology, engineering and maths (STEM) events and tours, reinforcing our commitment to water literacy across schools, universities and industry stakeholders. We also built literacy around source water protection with information stands at events and through numerous social media campaigns.

COMMON WATER QUALITY ENQUIRIES

We manage approximately 200,000 connections to the water network in the ACT.

A survey of 423 residential households and 200 businesses indicated that 86 per cent of our customers are satisfied with our services. Our drinking water continued to be highly regarded with 89 per cent of our customers satisfied with the quality.

Occasionally customers experience problems with the quality of their water supply and contact us for advice. Concerns expressed by the community may be investigated to determine the likely cause and, if required, corrective actions are taken. For example, following media coverage, we received several customer enquiries about PFAS in drinking water. Recognising the importance of these concerns, we engaged with the community through various channels including our website to keep the community informed about the measures we are taking.

During 2024–25 we received around 70,000 customer calls (including faults and emergencies, account inquiries, and general questions).

Among these, 141 calls were concerns about water quality, and 29 were escalated for further investigation. These escalated cases were handled systematically to ensure thorough investigation, effective communication and resolution. A summary of the types of water quality complaints received are detailed below (Figure 12).

Changes to water quality are often short-term and may be associated with:

- seasonal changes to quality
- a switch between WTPs (each source water catchment has a different natural quality signature – for instance organic content changes in each catchment)
- water main bursts, network renewal or expansion, maintenance work or a change in usage patterns within the water supply system.

Sudden changes in network demand caused by hot weather, use of a fire hydrant, or network valve operations required for maintenance work have the potential to reverse the direction of flow of water. This causes a shearing force on internal pipe surfaces and disturbs the natural mineral sediment that settles at the bottom of pipes, which may result in discoloured water for a short time. Where customers are likely to be affected by planned maintenance activities, we make every effort to notify them in advance or plan activities and valve operations to minimise impacts on the water network.

It is also common for customers to notice a change in the appearance or aesthetic quality of their water due to issues associated with their own internal pipework or the way they store water. The easiest way to determine if an issue is originating in Icon Water's network or within a customer's home is to check the water at the front garden tap or talk with neighbours.

Figure 12. Total number of customer enquiries about water quality

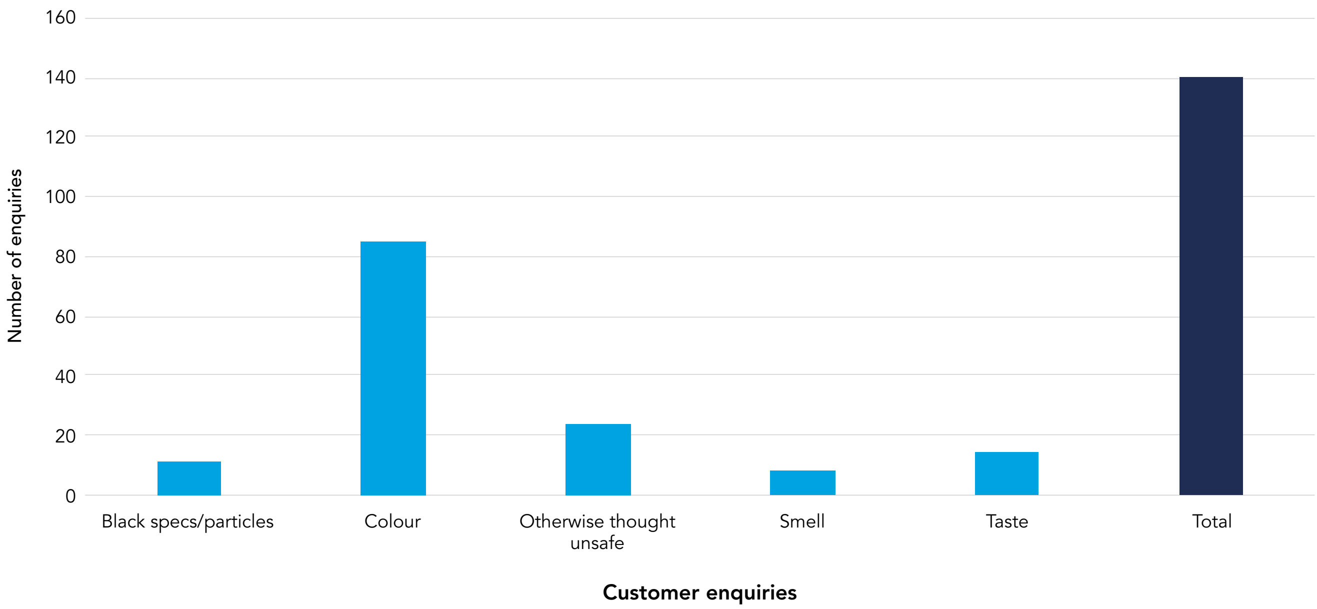


Table 3. A summary of common enquiries

Discoloured	Discoloured water is often associated with planned and reactive maintenance work or a change in network usage patterns, but may also be associated with internal plumbing (particularly within deteriorated pipework and hot water services). Usually clears within a short time, after flushing or upon inspection of internal pipework.
White/cloudy	Usually presents as cloudy water resulting from air bubbles generated by flushing of the mains, hot water units or aerators on taps. Air is harmless, and will clear from the glass (from the bottom-upwards) if left to sit.
Blue/green	Blue or green water can often be associated with the corrosion of copper pipes. Usually addressed through changes to internal plumbing.
Staining	Deposits dislodged from domestic plumbing or from the water main can cause staining of washing. Usually temporary or cleared through investigation of internal fittings/pipework.
Chlorine smell	Usually these enquiries relate to a change (increase) in the level of chlorine perceived by a customer. These problems are aesthetic, usually short-term and can be reduced by: ▪ leaving water to stand on a bench or in a fridge for a short time, which will allow the chlorine to dissipate ▪ adding freshly squeezed citrus e.g. lemon juice to the water; this contains ascorbic acid which can neutralise chlorine.
Disagreeable taste	Disagreeable tastes including musty, earthy, bitter and metallic tastes. Like odour, taste can vary and is subjective. Can sometimes be resolved by flushing water in the network, often addressed by investigating internal plumbing issues.
Other	Issues not otherwise categorised.

NOTIFICATIONS TO ACT HEALTH

Icon Water complies with the *Public Health (Drinking Water) Code of Practice (2007)* (the Code) issued by ACT Health.

The Code sets out operational, communication, reporting and response requirements for Icon Water and ACT Health to ensure the supply of safe drinking water. It also sets out the types of water quality events or incidents that require notification by Icon Water to ACT Health.

During 2024–25, six notifications to ACT Health were issued; four were identified from the results of our routine monitoring program and two from investigations. All six notifications were regarding water in the distribution network.

The details of each of these are below in Table 4.

Table 4. Notifications to ACT Health under the Drinking Water Code of Practice

Water in the distribution system	
19/7/2024	*E. coli* – Deakin A routine sample collected returned a positive detection for *E. coli*. The investigation observed that the property had undergone construction activities and as a result the original sample tap had been removed, and the representativeness of the replacement had not been determined. The conclusion of the investigation into the atypical results also determined that the sample tap was fed by a rainwater tank and therefore not representative of Icon Water's drinking water supply. This site has been removed from the monitoring program.
9/10/2024	Chlorine – Casuarina Reservoir The reservoir is in the Cotter Precinct and services three potable customers. A routine sample showed low chlorine, prompting re-chlorination. A follow-up test revealed an elevated level of 7.5 mg/L, exceeding the ADWG health guideline of 5 mg/L. Flushing of the upstream main reduced chlorine to acceptable levels. The reservoir was taken offline for investigation, and a malfunctioning chlorine injection point was identified and repaired.
14/10/2024	Manganese – Oakey Hill Reticulation An elevated manganese concentration of 556 µg/L was detected in a routine monitoring sample from this site. Subsequent investigation found that the sample was collected during a nearby water main burst, suggesting the exceedance was caused by the disturbance associated with the incident, the quality resolved following repair of the main.
17/11/2024	Lead – Hydrant FID121497 The sample was collected as part of an investigation into chlorine decay in the network. Testing revealed an elevated lead level of 134 µg/L, significantly above the ADWG health guideline limit of 10 µg/L. Attributed to stagnant water in the hydrant, subsequent testing showed results below the guideline values.
31/3/2025	Queanbeyan-Palerang Regional Council As part of routine monitoring, two samples returned *E. coli* levels of 2 MPN/100mL and 1 MPN/100mL respectively. The results from the follow-up samples showed no positive detection of *E. coli*, suggesting that the original results may not be reliable and were deemed not representative of water quality in this part of the reticulation system.
8/4/2025	Manganese – Calwell A water quality investigation involved collecting a pre-flush sample from a hydrant. The result showed manganese levels of 1070 µg/L exceeding the ADWG Health limit of 500 µg/L. A sample collected at the completion of the flush from the same hydrant showed significantly lower manganese levels of 57.8 µg/L.

MANAGING WATER QUALITY INTO THE FUTURE

RESEARCH, DEVELOPMENT AND INNOVATION

Part of operating efficiently involves staying up to date with the latest developments and technologies.

We do this by contributing funds, providing in-kind support, collaborating on a range of research and development projects, and partnering with other 'can do' business partners.

We are a member of several water industry bodies and participate in network groups and joint collaborative research projects. This enables us to benefit from shared knowledge, expertise, partnerships and funding across Australia and internationally.

We work in partnership with universities and industry through the Water Services Association of Australia (WSAA) and Water Research Australia (WaterRA).

These relationships provide access to research organisations such as Cooperative Research Centres, the Water Environment Research Foundation (WERF), the Smart Water Fund and the Australian Research Council. We contribute to industry associations such as the Research Managers Network, WaterRA forums and W-Lab (a platform for showcasing the latest advances, innovations and international water utility technologies).

In 2024–25, we contributed to the following research, development and innovation projects:

- In collaboration with WSAA and other water industry partners, we are participating in a project aimed at developing a standardised, peer-reviewed approach for conducting a risk assessment for PFAS contamination in drinking water supplies. A key focus is to improve understanding of the potential for PFAS leaching from products approved for use in drinking water systems.
- We contributed to a national collaborative study involving health authorities and water utilities to assess the risks of recreational access to drinking water catchments. The final report, released in 2025, has confirmed that recreational access can significantly increase treatment costs, pathogen risks, and ecological impacts. The study reinforced the value of protected catchments and introduced tools to guide future access decisions.
- In partnership with Griffith University, government agencies and water utilities, we are participating in research to determine the ecological impacts of bushfire-fighting chemicals. The project focuses on assessing the fate (where a chemical goes when it enters the environment and how it might be chemically transformed in the process), persistence and aquatic toxicity of firefighting chemicals used to control bushfires, to help protect water quality in drinking water supply catchments.
- WaterRA Project 1152-22: Improving Analysis in Response to Extreme Events was a collaborative initiative led by WaterRA. Icon Water participated in this project, providing financial investment and data to support its objectives. Now complete, the outcomes include a summary of the impacts of extreme events on source water quality, the development of baseline datasets, validation of laboratory methodologies and utility response protocols.
- We are collaborating with WSAA, multiple water utilities, and an external consultant on a Drinking Water Tank Design Code of Practice project aimed at improving the performance and water quality management of potable water storage tanks throughout their lifecycle. The initiative is structured in two stages:
  - Stage 1, completed in April 2024, involved gathering existing standards and practices from WSAA utilities and conducting a broader literature review to create a centralised register and recommend next steps.
  - Stage 2, commenced in February 2025 and focused on developing an industry standard based on these best practices, including standardised designs and case studies.

MANAGING ASSETS TO MEET CURRENT AND FUTURE NEEDS

Climate Change Adaptation Plan

To prepare for climate-driven impacts to source water quality and drinking water treatment, in 2023 we published our revised five-year *Climate Change Adaptation Plan – sustaining resilience.*

This revised plan recognises that climate change hazards often happen consecutively, and that cascading impacts from external forces also amplify the impacts of climate change, adding pressure to our adaptation planning.

Integrated Water Management Program

We are actively planning for a growing Canberra and a future where climate change has impacted our systems. We routinely reassess our water security, water catchment quality, drought management actions and wastewater systems to inform operating and investment decisions and build resilience.

Icon Water's Integrated Water Management Program (IWMP) is one of our strategic priorities, which aims to ensure that our service strategies and Drought Management Plan are coordinated and integrated and key future investment decisions consider the whole water cycle. The IWMP will deliver sustainable value for our community and shareholders and ensure we are prepared for the future.

Based on assumed climate scenarios and current demand projections our water resource models are forecasting the need to augment our water supply system around 2035-2040. We are progressing investigations into our next water source through the IWMP.

Our Water System Strategy identifies the vision and objectives for our water system to be safe, secure and smart. It is focused on achieving three objectives:

- Objective 1: Safe system – A system that delivers safe drinking water in a safe way.
- Objective 2: Secure system – A system that provides water now and into the future.
- Objective 3: Smart system – A system that learns, adapts and grows.

Our Water System Strategy incorporates an adaptive planning approach to managing future uncertainties, and provides a decision-making framework with:

- specific actions and deliverables over the short-term (next five years)
- plans over the medium-term (5-10 years) and long-term (over 10 years).

Assessment of the current conditions of our water system has identified a number of challenges but also potential opportunities. The main drivers identified that impact our water system are demand, operating context, and environmental/climate change.

The main short-term (five-year) water quality management actions identified through our IWMP include:

- developing Level of Service (LoS) targets for our WTPs and determining the timing of required future WTP augmentations
- reviewing the capability of our WTPs to comply with the ADWG, including the recent adoption of microbial health-based targets
- updating our WTP master plans to ensure the water supply system continues to meet quality and reliability measures
- updating and implementing the Strategic Water Quality Improvement Plan.

In parallel we are undertaking planning and design works to help upgrade Googong WTP to help manage changes to source water characteristics that we have experienced from intense climatic events and increasing landuse pressures.

Strategic Water Quality Improvement Plan

Our annual Strategic Water Quality Improvement plan summarises the activities underway to improve our drinking water quality management and identified strategic risks associated with drinking water supply.

Most projects relate to maintenance, asset renewal, or continuous improvement, many of which are longer-term. Status updates on these projects, along with any new projects, are outlined in this plan. Projects from the 2024–25 plan are detailed in the following sections.

- The notable downward trend in raw water quality in the Googong reservoir means the ability of the Googong WTP to meet drinking water quality requirements may be at risk in the future. A project is currently underway to address several key water quality issues:
    - poor taste and odour (due to Methyl-Isoborneol (MIB) and Geosmin), leading to customer complaints
    - elevated dissolved organic carbon (DOC) concentration in treated water influencing the generation of trihalomethane (THM), a disinfection by-product
    - manganese removal capacity
    - achieving the required log removal value (the measure of how effectively pathogens are removed) during the water treatment process, in line with the health-based targets set by ADWG.

A gap analysis has been completed to identify potential treatment shortfalls, and three upgrade options for the WTP have been shortlisted. These options are currently undergoing further evaluation through high-level feasibility and concept development.

Once the assessment is complete, the preferred option will be presented to the Investment Review Committee for endorsement via a formal business case.

- With 50 service reservoirs of varying ages within our network, we run a routine program to assess and maintain reservoir structural integrity; in particular, the roof integrity of reservoirs is an essential control to prevent contamination from entering the drinking water. O'Connor Reservoir's roof was replaced in 2024 and Aranda Reservoir's roof is currently being renewed. Eleven other reservoirs (Deakin, Upper and Lower Russell, Lower Red Hill Tank B, Campbell, Black Mountain, Chifley, Macarthur, Uriarra, Stromlo and Rivett) have been identified for renewal. Business cases are currently being developed for the other identified sites.
- To ensure we can maintain the required chlorine residual for safe drinking water across the network, we are evaluating the benefits of installing online chlorine monitoring at five of our service reservoirs. This project also aims to improve our understanding of the effectiveness of our current re-chlorination approach. Of the five proposed sites, four have been completed and commissioned. While they are not yet collecting formal data, they have been confirmed as operational. The final site is scheduled to be energised and commissioned late July 2025. Once all sites are active, calibration will be carried out, with full operational status expected by the end of August 2025.

LABORATORY ANALYSIS

LABORATORY ANALYSIS

Quality control and assurance

Icon Water contracts ALS Global to collect and analyse drinking water samples. The monitoring program is defined by a Service Level Agreement which is revised annually to reflect our changing needs and priorities. ALS Global operates a laboratory accredited by the National Association of Testing Authorities (NATA).

NATA-accredited laboratories are recognised globally due to their technical evaluations and mutual recognition agreements with international counterparts. ALS Global participates in regular audits and proficiency testing whereby results for identical samples are compared with other NATA-accredited laboratories. NATA audits were carried out in the chemistry area in April 2024 and the laboratory has submitted required documentation for a biologicals assessment for the second half of 2025. The facility complies with the criteria of NATA Policy Circular 1 – Corporate Accreditation.

How to read the results for water quality in your area

The Canberra distribution system is divided into four water quality supply zones based on population, hydraulic characteristics and geography. These zones also ensure the statistical representation of samples collected from the taps of participants in our voluntary water quality monitoring program.

A summary of the laboratory analysis completed for the customer tap water quality monitoring program is presented in the following tables. You can search by suburb and by the water quality parameter of interest. Parameters are grouped into categories to simplify navigating the tables. Each summary table includes the total number of samples analysed for each parameter, the range of those values being the minimum, maximum, mean and the 95th percentile.

Also included are the ADWG health values for a ready comparison of our results demonstrating how we are meeting public health requirements.

The following pages of test results are for samples collected from our customer tap monitoring program. These results are representative of the quality of water received by customers across the region. Approximately 100 locations are sampled each month.

In monitoring the water supplied to our customers we collected 1,240 unique samples, tested for up to 177 parameters returning a total of 32,914 test results. 100 per cent of applicable test results were compliant with the ADWG health values.

- Table 5: Summary data for all water quality zones
- Table 6: Summary data for water quality zone 1 – North Canberra and Gungahlin
- Table 7: Summary data for water quality zone 2 – Belconnen
- Table 8: Summary data for water quality zone 3 – South Canberra, Woden and Weston Creek
- Table 9: Summary data for water quality zone 4 – Tuggeranong

Figure 13. Water quality monitoring zone map

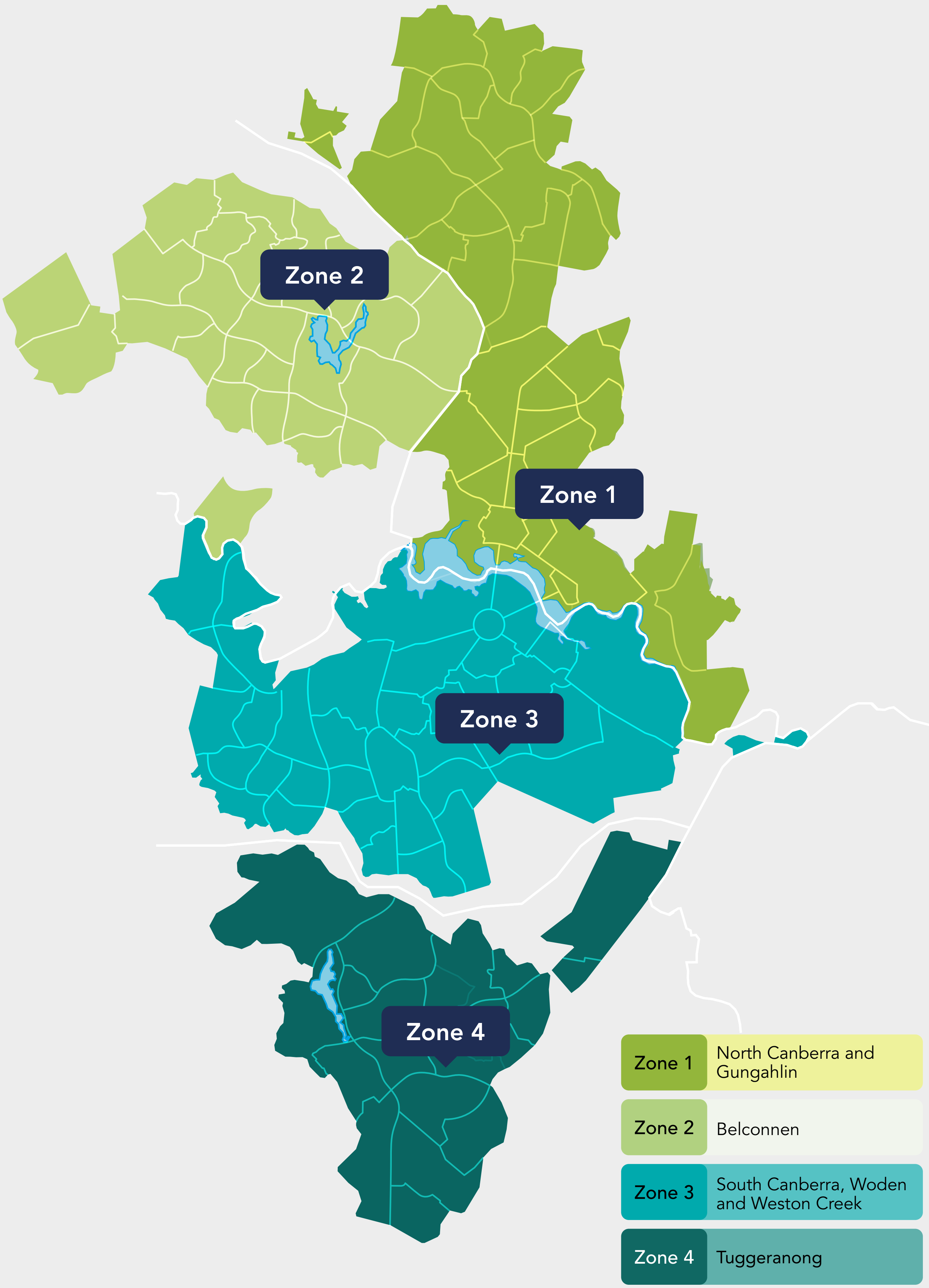


Table 5. Summary data for all water quality zones

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Microbiological									
E.Coli	AS 4276.21	MPN/100mL	<1	<1	1204	<1	<1	<1	<1
Total coliforms	AS 4276.21	MPN/100mL	-	<1	1204	<1	24	<1	<1
Heterotrophic plate count	APHA 9215 B	CFU/mL	-	<1	1234	<1	427	3	7
Physical									
Conductivity	APHA 2510 B	µS/cm	-	<2	120	64	239	123	233
pH	APHA 4500-H B	pH units	-	<0.01	1235	6.22	8.99	7.59	8.01
Temperature	APHA 4500-H B	deg. C	-	<0.1	274	8.0	27.3	17.3	24.5
Total dissolved solids	APHA 2540 C	mg/L	-	<10	120	17	124	73	112
True colour	APHA 2120 B	Pt/Co	-	<1	243	<1	2	<1	1
Turbidity	APHA 2130 B	NTU	-	<0.1	275	0.1	2.7	0.3	0.6
Inorganic									
Alkalinity bicarb	APHA 2320 A/B	mg/L	-	<0.1	271	24.2	55.4	36.4	43.3
Alkalinity carb	APHA 2320 A/B	mg/L	-	<0.1	271	<0.1	9.0	0.1	<0.1
Alkalinity hydrox	APHA 2320 A/B	mg/L	-	<0.1	271	<0.1	<0.1	<0.1	<0.1
Alkalinity total	APHA 2320 A/B	mg/L	-	<1	271	24	55	36	43
Aluminium acid soluble	USEPA 200.8	µg/L	-	<5	121	17	108	31	40
Asbestos	AS4964-2000	g/kg	-	Absent	48	Absent	Present	Absent	Absent
Calcium dissolved	USEPA 200.7	mg/L	-	<0.05	120	7.07	17.10	12.11	16.41
Chloride	APHA 21st Ed. 2005, Part 4110 B	mg/L	-	<0.1	48	1.4	7.8	4.1	7.7
Chlorine combined	APHA 4500 -CL G	mg/L	-	<0.03	1235	<0.03	0.25	0.06	0.16
Chlorine free	APHA 4500 -CL G	mg/L	-	<0.03	1235	0.14	1.84	0.99	1.31
Chlorine total	APHA 4500 -CL G	mg/L	5	<0.03	1235	0.20	1.84	1.05	1.38
Cyanide	APHA 4500_CN	mg/L	0.08	<0.004	48	<0.004	<0.004	<0.004	<0.004
Flouride	APHA 21st Ed. 2005, Part 4110 B	mg/L	1.5	<0.05	120	0.38	1.00	0.79	0.87
Hardness total	APHA 2340 B	mg/L	-	<1	120	21	59	37	57
Iodide	VIC-CM078	mg/L	0.5	<0.01	48	<0.01	<0.01	<0.01	<0.01
Magnesium dissolved	USEPA 200.7	mg/L	-	<0.05	120	0.82	4.30	1.54	4.18
Nitrate	APHA 21st Ed. 2005, Part 4110 B	mg/L N	50	<0.1	48	<0.1	0.3	0.1	0.3
Potassium dissolved	USEPA 200.7	mg/L	-	<0.1	48	0.5	1.6	0.7	1.5
Sodium dissolved	USEPA 200.7	mg/L	-	<0.1	48	2.6	7.3	3.7	7.2
Sulphate	APHA 21st Ed. 2005, Part 4110 B	mg/L SO4	-	<0.4	48	<0.4	20.2	4.5	20.0
Total metals									
Aluminium total	USEPA 200.8	µg/L	-	<9	120	22	123	33	45
Antimony total	USEPA 200.8	µg/L	3	<3	121	<3	<3	<3	<3
Arsenic total	USEPA 200.8	µg/L	10	<1	121	<1	<1	<1	<1
Barium total	USEPA 200.8	µg/L	2000	<0.5	121	2.2	7.9	4.2	6.4
Beryllium total	USEPA 200.8	µg/L	60	<0.1	121	<0.1	<0.1	<0.1	<0.1
Boron total	USEPA 200.7	mg/L	4	<0.01	49	<0.01	<0.01	<0.01	<0.01
Cadmium total	USEPA 200.8	µg/L	2	<0.05	121	<0.05	0.08	<0.05	<0.05
Chromium total	USEPA 200.8	µg/L	-	<2	120	<2	3	<2	<2
Cobalt total	USEPA 200.8	µg/L	-	<0.2	121	<0.2	0.5	<0.2	<0.2
Copper total	USEPA 200.8	µg/L	2000	<1	241	1	93	14	43
Iron total	USEPA 200.7	mg/L	-	<0.01	275	<0.01	0.08	<0.01	0.02
Lead total	USEPA 200.8	µg/L	10*	<0.2	241	<0.2	8.8	0.3	0.9

Table 5. Summary data for all water quality zones

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Manganese total	USEPA 200.7	mg/L	0.5*	<0.001	240	<0.001	0.081	0.005	0.016
Mercury total	USEPA 200.8	µg/L	1	<0.1	123	<0.1	<0.1	<0.1	<0.1
Molybdenium total	USEPA 200.8	µg/L	50	<1	121	<1	<1	<1	<1
Nickel total	USEPA 200.8	µg/L	20	<1	121	<1	<1	<1	<1
Selenium total	USEPA 200.8	µg/L	10*	<1	121	<1	<1	<1	<1
Silver total	USEPA 200.8	µg/L	100	<1	121	<1	<1	<1	<1
Zinc total	USEPA 200.8	µg/L	-	<5	120	<5	13	<5	9
Haloacetic acids									
Bromoacetic acid	ALS: Headspace GCMS	µg/L	-	<5	147	<5	<5	<5	<5
Bromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	147	<1	6	2	5
Bromodichloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	147	<1	12	3	9
Chloroacetic acid	ALS: Headspace GCMS	µg/L	150	<1	147	1	5	3	4
Dibromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	147	<10	<10	<10	<10
Dibromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	147	5	10	5	5
Dichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	147	6	44	18	34
Tribromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	147	<10	10	<10	<10
Trichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	147	8	58	25	49
Sum of Haloacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	147	18	124	51	100
Trihalomethanes									
Bromoform	VIC-CM047	mg/L	-	<0.001	150	<0.001	<0.001	<0.001	<0.001
Chloroform	VIC-CM047	mg/L	-	<0.001	150	0.012	0.076	0.031	0.068
Dibromochloromethane	VIC-CM047	mg/L	-	<0.001	150	<0.001	0.001	<0.001	0.001
Bromodichloromethane	VIC-CM047	mg/L	-	<0.001	150	0.001	0.012	0.004	0.011
Trihalomethanes total	VIC-CM047	mg/L	0.25	<0.001	150	0.013	0.089	0.035	0.079
Semi volatile organic compounds (SVOC) Anilines and benzidines									
2-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
3-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
3,3′-Dichlorobenzidine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
4-Chloroaniline	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
4-Nitroaniline	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Aniline	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Carbazole	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Dibenzofuran	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Chlorinated hydrocarbons									
1,2-Dichlorobenzene	ALS Headspace GCMS	µg/L	1500	<0.25	120	<0.25	<0.25	<0.25	<0.25
1,2,4-Trichlorobenzene	US EPA 3510/8270	µg/L	30	<2	120	<2	<2	<2	<2
1,3-Dichlorobenzene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
1,4-Dichlorobenzene	ALS Headspace GCMS	µg/L	40	<0.25	120	<0.25	<0.25	<0.25	<0.25
Hexachlorobenzene	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
Hexachlorobutadiene	ALS Headspace GCMS	µg/L	0.7	<0.25	120	<0.25	<0.25	<0.25	<0.25
Hexachlorocyclopentadiene	US EPA 3510/8270	µg/L	-	<10	120	<10	<10	<10	<10
Hexachloroethane	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Hexachloropropylene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Pentachlorobenzene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Haloethers									
4-Bromophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
4-Chlorophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2

Table 5. Summary data for all water quality zones

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Bis(2-chloroethoxy) methane	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Bis(2-chloroethyl) ether	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Nitroaromatics and ketones									
1-Naphthylamine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
1,3,5-Trinitrobenzene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2-Picoline	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2,4-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
2,6-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
4-Aminobiphenyl	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
4-Nitroquinoline-N-oxide	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
5-Nitro-o-toluidine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Acetophenone	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Azobenzene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Chlorobenzilate	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Dimethylaminoazobenzene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Isophorone	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Nitrobenzene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Pentachloronitrobenzene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Phenacetin	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Pronamide	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Nitrosamines									
Methapyrilene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-Nitrosodibutylamine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-Nitrosodiethylamine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-Nitrosodi-n-propylamine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-Nitrosodiphenyl & Diphenylamine	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
N-Nitrosomethylethylamine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-Nitrosomorpholine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-Nitrosopiperidine	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-Nitrosopyrrolidine	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
Organochlorine pesticides									
4,4′-DDD	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
4,4′-DDE	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
4,4′-DDT	US EPA 3510/8270	µg/L	9	<4	120	<4	<4	<4	<4
Aldrin	US EPA 8081/8082	µg/L	0.3	<0.01	120	<0.01	<0.01	<0.01	<0.01
alpha-BHC	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
alpha-Endosulfan	US EPA 3510/8270	µg/L	20	<2	120	<2	<2	<2	<2
beta-BHC	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
beta-Endosulfan	US EPA 3510/8270	µg/L	20	<2	120	<2	<2	<2	<2
delta-BHC	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Dieldrin	US EPA 8081/8082	µg/L	0.3	<0.01	120	<0.01	<0.01	<0.01	<0.01
Endrin	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Endosulfan sulfate	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
gamma-BHC	US EPA 3510/8270	µg/L	10	<2	120	<2	<2	<2	<2
Heptachlor	US EPA 8081/8082	µg/L	0.3	<0.005	120	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2

Table 5. Summary data for all water quality zones

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Organophosphorous pesticides									
Chlorfenvinphos	US EPA 3510/8270	µg/L	2	<2	120	<2	<2	<2	<2
Chlorpyrifos	US EPA 3510/8270	µg/L	10	<2	120	<2	<2	<2	<2
Chlorpyrifos-methyl	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Diazinon	US EPA 3510/8270	µg/L	4	<2	120	<2	<2	<2	<2
Dichlorvos	US EPA 3510/8270	µg/L	5	<2	120	<2	<2	<2	<2
Dimethoate	US EPA 3510/8270	µg/L	7	<2	120	<2	<2	<2	<2
Ethion	US EPA 3510/8270	µg/L	4	<2	120	<2	<2	<2	<2
Fenthion	US EPA 3510/8270	µg/L	7	<2	120	<2	<2	<2	<2
Malathion	US EPA 3510/8270	µg/L	70	<2	120	<2	<2	<2	<2
Pirimiphos-ethyl	ALS LC-MSMS	µg/L	0.5	<0.01	120	<0.01	<0.01	<0.01	<0.01
Prothiofos	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Phenolic compounds									
2,3,4,6-Tetrachlorophenol	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2,4-Dichlorophenol	US EPA 8270	µg/L	200	<0.1	120	<0.1	<0.1	<0.1	<0.1
2,4-Dimethylphenol	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2,4,5-Trichlorophenol	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2,4,6-Trichlorophenol	US EPA 3510/8270	µg/L	20	<2	120	<2	<2	<2	<2
2,6-Dichlorophenol	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2-Chlorophenol	US EPA 8270	µg/L	300	<0.05	120	<0.05	<0.05	<0.05	<0.05
2-Methylphenol	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2-Nitrophenol	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
3- & 4-Methylphenol	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
4-Chloro-3-Methylphenol	US EPA 3510/8270	µg/L		<2	120	<2	<2	<2	<2
Pentachlorophenol	US EPA 3510/8270	µg/L	10	<4	120	<4	<4	<4	<4
Phenol	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Phthalates									
Bis(2-ethylhexyl) phthalate	US EPA 3510/8270	µg/L	10	<10	120	<10	<10	<10	<10
Bis(2-ethylhexyl) phthalate	US EPA 8270D	µg/L	10	<10	120	<10	<10	<10	<10
Butyl benzyl phthalate	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Butyl benzyl phthalate	US EPA 8270D	µg/L	-	<2	120	<2	<2	<2	<2
Diethyl phthalate	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Diethyl phthalate	US EPA 8270D	µg/L	-	<2	120	<2	<2	<2	<2
Dimethyl phthalate	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Dimethyl phthalate	US EPA 8270D	µg/L	-	<2	120	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 8270D	µg/L	-	<2	120	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 8270D	µg/L	-	<2	120	<2	<2	<2	<2
Polycyclic aromatic hydrocarbons									
2-Chloronaphthalene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
2-Methylnaphthalene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
3-Methylcholanthrene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
7,12-Dimethylbenz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Acenaphthene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Acenaphthene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Acenaphthylene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1

Table 5. Summary data for all water quality zones

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Acenaphthylene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Anthracene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Anthracene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Benzo(a)pyrene	ALS GCMS-SIM	µg/L	0.01	<0.005	240	<0.005	<0.005	<0.005	<0.005
Benzo(b) fluoranthene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Benzo(k) fluoranthene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Benzo(b) & Benzo(k)fluoranthene	US EPA 3510/8270	µg/L	-	<4	120	<4	<4	<4	<4
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Chrysene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Chrysene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Fluoranthene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Fluoranthene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Fluorene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Fluorene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Indeno(1.2.3.cd)pyrene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Indeno(1.2.3-cd)pyrene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
N-2-Fluorenyl Acetamide	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Phenanthrene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
Phenanthrene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<1	120	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<2	120	<2	<2	<2	<2
PAHs (total)	US EPA 3510/8270	µg/L	-	<0.5	120	<0.5	<0.5	<0.5	<0.5

Table notes:

ADWG (Health)	Australian Drinking Water Guidelines – health guideline value
CFU/mL	colony forming units per millilitre
deg. C	degrees Celsius
LOR	the limit of reporting is the lowest value that the test method can reliably achieve and is denoted by a less than value symbol <
µg/L	micrograms per litre
µS/cm	micro siemens per centimetre
mg/L	milligrams per litre
MPN/100ml	most probable number per 100 millilitres
NTU	nephelometric units
Pt-Co	platinum-cobalt units

The 95th percentile is a statistical calculation based on 'normal' distribution. In the context of this report, it estimates the value for which 95 per cent of all the water that passes through the distribution system in this 12 month period falls below.

Where the table lists two distinct data sets for the same analyte, the analyte has been measured in two different suites of screens conducted by the laboratory: semi volatile organic compounds screen and phthalates screen.

* ADWG health guideline values were reduced for Lead (5µg/L) Manganese (0.1mg/L) and Selenium (4µg/L) on 25/06/2025. Four samples included in this dataset were collected on or after this date, with all results being below the revised health guideline values.

Table 6. Summary data for water quality zone 1: North Canberra and Gungahlin

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Microbiological									
E.Coli	AS 4276.21	MPN/100mL	<1	<1	346	<1	<1	<1	<1
Total coliforms	AS 4276.21	MPN/100mL	-	<1	346	<1	<1	<1	<1
Heterotrophic plate count	APHA 9215 B	CFU/mL	-	<1	358	<1	427	5	9
Physical									
Conductivity	APHA 2510 B	µS/cm	-	<2	36	80	234	123	173
pH	APHA 4500-H B	pH units	-	<0.01	358	6.38	8.99	7.50	7.84
Temperature	APHA 4500-H B	deg. C	-	<0.1	85	8.7	26.1	17.0	24.2
Total dissolved solids	APHA 2540 C	mg/L	-	<10	36	30	124	74	116
True colour	APHA 2120 B	Pt/Co	-	<1	72	<1	2	<1	<1
Turbidity	APHA 2130 B	NTU	-	<0.1	85	0.1	1.3	0.3	0.7
Inorganic									
Alkalinity bicarb	APHA 2320 A/B	mg/L	-	<0.1	84	24.2	55.4	36.6	43.2
Alkalinity carb	APHA 2320 A/B	mg/L	-	<0.1	84	<0.1	9.0	0.2	<0.1
Alkalinity hydrox	APHA 2320 A/B	mg/L	-	<0.1	84	<0.1	<0.1	<0.1	<0.1
Alkalinity total	APHA 2320 A/B	mg/L	-	<1	84	24	55	37	43
Aluminium acid soluble	USEPA 200.8	µg/L	-	<5	36	22	40	30	37
Asbestos	AS4964-2000	g/kg	-	Absent	12	Absent	Absent	Absent	Absent
Calcium dissolved	USEPA 200.7	mg/L	-	<0.05	36	7.07	16.60	12.09	16.18
Chloride	APHA 21st Ed. 2005, Part 4110 B	mg/L	-	<0.1	12	1.4	7.7	3.9	7.6
Chlorine combined	APHA 4500 -CL G	mg/L	-	<0.03	358	<0.03	0.25	0.06	0.17
Chlorine free	APHA 4500 -CL G	mg/L	-	<0.03	358	0.27	1.42	1.00	1.34
Chlorine total	APHA 4500 -CL G	mg/L	5	<0.03	358	0.34	1.54	1.07	1.40
Cyanide	APHA 4500_CN	mg/L	0.08	<0.004	12	<0.004	<0.004	<0.004	<0.004
Flouride	APHA 21st Ed. 2005, Part 4110 B	mg/L	1.5	<0.05	36	0.38	0.99	0.79	0.87
Hardness total	APHA 2340 B	mg/L	-	<1	36	21	58	37	57
Iodide	VIC-CM078	mg/L	0.5	<0.01	12	<0.01	<0.01	<0.01	<0.01
Magnesium dissolved	USEPA 200.7	mg/L	-	<0.05	36	0.82	4.24	1.56	4.21
Nitrate	APHA 21st Ed. 2005, Part 4110 B	mg/L N	50	<0.1	12	<0.1	0.3	0.1	0.2
Potassium dissolved	USEPA 200.7	mg/L	-	<0.1	12	0.5	1.6	0.7	1.5
Sodium dissolved	USEPA 200.7	mg/L	-	<0.1	12	2.8	7.3	3.8	7.2
Sulphate	APHA 21st Ed. 2005, Part 4110 B	mg/L SO4	-	<0.4	12	<0.4	20.0	4.5	19.9
Total metals									
Aluminium total	USEPA 200.8	µg/L	-	<9	36	22	54	33	45
Antimony total	USEPA 200.8	µg/L	3	<3	36	<3	<3	<3	<3
Arsenic total	USEPA 200.8	µg/L	10	<1	36	<1	<1	<1	<1
Barium total	USEPA 200.8	µg/L	2000	<0.5	36	2.6	7.9	4.4	6.6
Beryllium total	USEPA 200.8	µg/L	60	<0.1	36	<0.1	<0.1	<0.1	<0.1
Boron total	USEPA 200.7	mg/L	4	<0.01	12	<0.01	<0.01	<0.01	<0.01
Cadmium total	USEPA 200.8	µg/L	2	<0.05	36	<0.05	<0.05	<0.05	<0.05
Chromium total	USEPA 200.8	µg/L	-	<2	36	<2	<2	<2	<2
Cobalt total	USEPA 200.8	µg/L	-	<0.2	36	<0.2	<0.2	<0.2	<0.2
Copper total	USEPA 200.8	µg/L	2000	<1	72	2	93	13	44
Iron total	USEPA 200.7	mg/L	-	<0.01	85	<0.01	0.07	<0.01	<0.01
Lead total	USEPA 200.8	µg/L	10	<0.2	72	<0.2	2.8	0.4	0.9

Table 6. Summary data for water quality zone 1: North Canberra and Gungahlin

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Manganese total	USEPA 200.7	mg/L	0.5	<0.001	72	<0.001	0.032	0.005	0.015
Mercury total	USEPA 200.8	µg/L	1	<0.1	37	<0.1	<0.1	<0.1	<0.1
Molybdenium total	USEPA 200.8	µg/L	50	<1	36	<1	<1	<1	<1
Nickel total	USEPA 200.8	µg/L	20	<1	36	<1	<1	<1	<1
Selenium total	USEPA 200.8	µg/L	10	<1	36	<1	<1	<1	<1
Silver total	USEPA 200.8	µg/L	100	<1	36	<1	<1	<1	<1
Zinc total	USEPA 200.8	µg/L	-	<5	36	<5	13	<5	10
Haloacetic acids									
Bromoacetic acid	ALS: Headspace GCMS	µg/L	-	<5	48	<5	<5	<5	<5
Bromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	48	<1	6	2	5
Bromodichloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	48	1	11	3	9
Chloroacetic acid	ALS: Headspace GCMS	µg/L	150	<1	48	1	5	3	4
Dibromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	48	<10	<10	<10	<10
Dibromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	48	5	10	5	5
Dichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	48	8	44	18	34
Tribromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	48	<10	10	<10	<10
Trichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	48	11	58	25	49
Sum of Haloacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	48	23	124	51	99
Trihalomethanes									
Bromoform	VIC-CM047	mg/L	-	<0.001	48	<0.001	<0.001	<0.001	<0.001
Chloroform	VIC-CM047	mg/L	-	<0.001	48	0.012	0.075	0.030	0.062
Dibromochloromethane	VIC-CM047	mg/L	-	<0.001	48	<0.001	0.001	<0.001	0.001
Bromodichloromethane	VIC-CM047	mg/L	-	<0.001	48	0.001	0.012	0.004	0.011
Trihalomethanes total	VIC-CM047	mg/L	0.25	<0.001	48	0.013	0.088	0.034	0.073
Semi volatile organic compounds (SVOC) Anilines and benzidines									
2-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
3-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
3,3'-Dichlorobenzidine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Chloroaniline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Nitroaniline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Aniline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Carbazole	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dibenzofuran	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Chlorinated hydrocarbons									
1,2-Dichlorobenzene	ALS Headspace GCMS	µg/L	1500	<0.25	36	<0.25	<0.25	<0.25	<0.25
1,2,4-Trichlorobenzene	US EPA 3510/8270	µg/L	30	<2	36	<2	<2	<2	<2
1,3-Dichlorobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
1,4-Dichlorobenzene	ALS Headspace GCMS	µg/L	40	<0.25	36	<0.25	<0.25	<0.25	<0.25
Hexachlorobenzene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
Hexachlorobutadiene	ALS Headspace GCMS	µg/L	0.7	<0.25	36	<0.25	<0.25	<0.25	<0.25
Hexachlorocyclopentadiene	US EPA 3510/8270	µg/L	-	<10	36	<10	<10	<10	<10
Hexachloroethane	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Hexachloropropylene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Pentachlorobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Haloethers									
4-Bromophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Chlorophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2

Table 6. Summary data for water quality zone 1: North Canberra and Gungahlin

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Bis(2-chloroethoxy) methane	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Bis(2-chloroethyl) ether	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Nitroaromatics and ketones									
1-Naphthylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
1,3,5-Trinitrobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Picoline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
2,6-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
4-Aminobiphenyl	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Nitroquinoline-N-oxide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
5-Nitro-o-toluidine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Acetophenone	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Azobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Chlorobenzilate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dimethylaminoazobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Isophorone	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Nitrobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Pentachloronitrobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phenacetin	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Pronamide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Nitrosamines									
Methapyrilene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodibutylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodiethylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodi-n-propylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodiphenyl & Diphenylamine	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
N-Nitrosomethylethylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosomorpholine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosopiperidine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosopyrrolidine	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
Organochlorine pesticides									
4,4′-DDD	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4,4′-DDE	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4,4′-DDT	US EPA 3510/8270	µg/L	9	<4	36	<4	<4	<4	<4
Aldrin	US EPA 8081/8082	µg/L	0.3	<0.01	36	<0.01	<0.01	<0.01	<0.01
alpha-BHC	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
alpha-Endosulfan	US EPA 3510/8270	µg/L	20	<2	36	<2	<2	<2	<2
beta-BHC	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
beta-Endosulfan	US EPA 3510/8270	µg/L	20	<2	36	<2	<2	<2	<2
delta-BHC	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dieldrin	US EPA 8081/8082	µg/L	0.3	<0.01	36	<0.01	<0.01	<0.01	<0.01
Endrin	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Endosulfan sulfate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
gamma-BHC	US EPA 3510/8270	µg/L	10	<2	36	<2	<2	<2	<2
Heptachlor	US EPA 8081/8082	µg/L	0.3	<0.005	36	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2

Table 6. Summary data for water quality zone 1: North Canberra and Gungahlin

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Organophosphorous pesticides									
Chlorfenvinphos	US EPA 3510/8270	µg/L	2	<2	36	<2	<2	<2	<2
Chlorpyrifos	US EPA 3510/8270	µg/L	10	<2	36	<2	<2	<2	<2
Chlorpyrifos-methyl	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Diazinon	US EPA 3510/8270	µg/L	4	<2	36	<2	<2	<2	<2
Dichlorvos	US EPA 3510/8270	µg/L	5	<2	36	<2	<2	<2	<2
Dimethoate	US EPA 3510/8270	µg/L	7	<2	36	<2	<2	<2	<2
Ethion	US EPA 3510/8270	µg/L	4	<2	36	<2	<2	<2	<2
Fenthion	US EPA 3510/8270	µg/L	7	<2	36	<2	<2	<2	<2
Malathion	US EPA 3510/8270	µg/L	70	<2	36	<2	<2	<2	<2
Pirimiphos-ethyl	ALS LC-MSMS	µg/L	0.5	<0.01	36	<0.01	<0.01	<0.01	<0.01
Prothiofos	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phenolic compounds									
2,3,4,6-Tetrachlorophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4-Dichlorophenol	US EPA 8270	µg/L	200	<0.1	36	<0.1	<0.1	<0.1	<0.1
2,4-Dimethylphenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4,5-Trichlorophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4,6-Trichlorophenol	US EPA 3510/8270	µg/L	20	<2	36	<2	<2	<2	<2
2,6-Dichlorophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Chlorophenol	US EPA 8270	µg/L	300	<0.05	36	<0.05	<0.05	<0.05	<0.05
2-Methylphenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Nitrophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
3- & 4-Methylphenol	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
4-Chloro-3-Methylphenol	US EPA 3510/8270	µg/L		<2	36	<2	<2	<2	<2
Pentachlorophenol	US EPA 3510/8270	µg/L	10	<4	36	<4	<4	<4	<4
Phenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phthalates									
Bis(2-ethylhexyl) phthalate	US EPA 3510/8270	µg/L	10	<10	36	<10	<10	<10	<10
Bis(2-ethylhexyl) phthalate	US EPA 8270D	µg/L	10	<10	36	<10	<10	<10	<10
Butyl benzyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Butyl benzyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Diethyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Diethyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Dimethyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dimethyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Polycyclic aromatic hydrocarbons									
2-Chloronaphthalene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Methylnaphthalene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
3-Methylcholanthrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
7,12-Dimethylbenz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Acenaphthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Acenaphthene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Acenaphthylene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1

Table 6. Summary data for water quality zone 1: North Canberra and Gungahlin

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Acenaphthylene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Anthracene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Benzo(a)pyrene	ALS GCMS-SIM	µg/L	0.01	<0.005	72	<0.005	<0.005	<0.005	<0.005
Benzo(b) fluoranthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benzo(k) fluoranthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benzo(b) & Benzo(k)fluoranthene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Chrysene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Chrysene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Fluoranthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Fluoranthene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Fluorene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Fluorene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Indeno(1.2.3.cd)pyrene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Indeno(1.2.3-cd)pyrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-2-Fluorenyl Acetamide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Phenanthrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phenanthrene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
PAHs (total)	US EPA 3510/8270	µg/L	-	<0.5	36	<0.5	<0.5	<0.5	<0.5

Table notes:

ADWG (Health)	Australian Drinking Water Guidelines – health guideline value
CFU/mL	colony forming units per millilitre
deg. C	degrees Celsius
LOR	the limit of reporting is the lowest value that the test method can reliably achieve and is denoted by a less than value symbol <
µg/L	micrograms per litre
µS/cm	micro siemens per centimetre
mg/L	milligrams per litre
MPN/100ml	most probable number per 100 millilitres
NTU	nephelometric units
Pt-Co	platinum-cobalt units

The 95th percentile is a statistical calculation based on 'normal' distribution. In the context of this report, it estimates the value for which 95 per cent of all the water that passes through the distribution system in this 12 month period falls below.

Where the table lists two distinct data sets for the same analyte, the analyte has been measured in two different suites of screens conducted by the laboratory: semi volatile organic compounds screen and phthalates screen.

* ADWG health guideline values were reduced for Lead (5µg/L) Manganese (0.1mg/L) and Selenium (4µg/L) on 25/06/2025. Two samples included in this dataset were collected on or after this date, with all results being below the revised health guideline values

Table 7. Summary data for water quality zone 2: Belconnen

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Microbiological									
E.Coli	AS 4276.21	MPN/100mL	<1	<1	324	<1	<1	<1	<1
Total coliforms	AS 4276.21	MPN/100mL	-	<1	324	<1	<1	<1	<1
Heterotrophic plate count	APHA 9215 B	CFU/mL	-	<1	336	<1	78	2	4
Physical									
Conductivity	APHA 2510 B	µS/cm	-	<2	36	67	237	124	229
pH	APHA 4500-H B	pH units	-	<0.01	336	6.92	8.16	7.61	7.92
Temperature	APHA 4500-H B	deg. C	-	<0.1	85	8.0	27.3	17.5	24.5
Total dissolved solids	APHA 2540 C	mg/L	-	<10	36	17	122	72	110
True colour	APHA 2120 B	Pt/Co	-	<1	72	<1	2	<1	1
Turbidity	APHA 2130 B	NTU	-	<0.1	84	0.1	2.7	0.3	0.6
Inorganic									
Alkalinity bicarb	APHA 2320 A/B	mg/L	-	<0.1	84	26.9	42.8	36.0	42.3
Alkalinity carb	APHA 2320 A/B	mg/L	-	<0.1	84	<0.1	<0.1	<0.1	<0.1
Alkalinity hydrox	APHA 2320 A/B	mg/L	-	<0.1	84	<0.1	<0.1	<0.1	<0.1
Alkalinity total	APHA 2320 A/B	mg/L	-	<1	84	27	43	36	42
Aluminium acid soluble	USEPA 200.8	µg/L	-	<5	36	17	89	32	41
Asbestos	AS4964-2000	g/kg	-	Absent	12	Absent	Present	Absent	Absent
Calcium dissolved	USEPA 200.7	mg/L	-	<0.05	36	9.35	16.80	11.94	16.43
Chloride	APHA 21st Ed. 2005, Part 4110 B	mg/L	-	<0.1	12	2.4	7.7	4.2	7.6
Chlorine combined	APHA 4500 -CL G	mg/L	-	<0.03	336	<0.03	0.25	0.06	0.16
Chlorine free	APHA 4500 -CL G	mg/L	-	<0.03	336	0.38	1.50	0.93	1.18
Chlorine total	APHA 4500 -CL G	mg/L	5	<0.03	336	0.49	1.59	1.00	1.25
Cyanide	APHA 4500_CN	mg/L	0.08	<0.004	12	<0.004	<0.004	<0.004	<0.004
Flouride	APHA 21st Ed. 2005, Part 4110 B	mg/L	1.5	<0.05	36	0.58	1.00	0.80	0.88
Hardness total	APHA 2340 B	mg/L	-	<1	36	27	59	36	57
Iodide	VIC-CM078	mg/L	0.5	<0.01	12	<0.01	<0.01	<0.01	<0.01
Magnesium dissolved	USEPA 200.7	mg/L	-	<0.05	36	0.86	4.27	1.55	4.04
Nitrate	APHA 21st Ed. 2005, Part 4110 B	mg/L N	50	<0.1	12	<0.1	0.3	0.2	0.3
Potassium dissolved	USEPA 200.7	mg/L	-	<0.1	12	0.5	1.5	0.7	1.5
Sodium dissolved	USEPA 200.7	mg/L	-	<0.1	12	2.7	7.1	3.7	7.1
Sulphate	APHA 21st Ed. 2005, Part 4110 B	mg/L SO4	-	<0.4	12	<0.4	19.8	4.6	19.7
Total metals									
Aluminium total	USEPA 200.8	µg/L	-	<9	36	22	97	34	43
Antimony total	USEPA 200.8	µg/L	3	<3	36	<3	<3	<3	<3
Arsenic total	USEPA 200.8	µg/L	10	<1	36	<1	<1	<1	<1
Barium total	USEPA 200.8	µg/L	2000	<0.5	36	2.5	6.4	4.2	6.3
Beryllium total	USEPA 200.8	µg/L	60	<0.1	36	<0.1	<0.1	<0.1	<0.1
Boron total	USEPA 200.7	mg/L	4	<0.01	12	<0.01	<0.01	<0.01	<0.01
Cadmium total	USEPA 200.8	µg/L	2	<0.05	36	<0.05	0.08	<0.05	<0.05
Chromium total	USEPA 200.8	µg/L	-	<2	36	<2	3	<2	<2
Cobalt total	USEPA 200.8	µg/L	-	<0.2	36	<0.2	<0.2	<0.2	<0.2
Copper total	USEPA 200.8	µg/L	2000	<1	72	1	87	16	49
Iron total	USEPA 200.7	mg/L	-	<0.01	84	<0.01	0.08	<0.01	<0.01
Lead total	USEPA 200.8	µg/L	10	<0.2	72	<0.2	1.5	0.3	0.7

Table 7. Summary data for water quality zone 2: Belconnen

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Manganese total	USEPA 200.7	mg/L	0.5	<0.001	72	<0.001	0.081	0.006	0.021
Mercury total	USEPA 200.8	µg/L	1	<0.1	36	<0.1	<0.1	<0.1	<0.1
Molybdenium total	USEPA 200.8	µg/L	50	<1	36	<1	<1	<1	<1
Nickel total	USEPA 200.8	µg/L	20	<1	36	<1	<1	<1	<1
Selenium total	USEPA 200.8	µg/L	10	<1	36	<1	<1	<1	<1
Silver total	USEPA 200.8	µg/L	100	<1	36	<1	<1	<1	<1
Zinc total	USEPA 200.8	µg/L	-	<5	36	<5	9	<5	7
Haloacetic acids									
Bromoacetic acid	ALS: Headspace GCMS	µg/L	-	<5	46	<5	<5	<5	<5
Bromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	46	<1	6	2	5
Bromodichloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	46	1	12	3	9
Chloroacetic acid	ALS: Headspace GCMS	µg/L	150	<1	46	1	5	3	4
Dibromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	46	<10	<10	<10	<10
Dibromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	46	5	10	5	5
Dichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	46	6	40	19	34
Tribromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	46	<10	10	<10	<10
Trichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	46	13	56	27	51
Sum of Haloacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	46	25	113	53	102
Trihalomethanes									
Bromoform	VIC-CM047	mg/L	-	<0.001	48	<0.001	<0.001	<0.001	<0.001
Chloroform	VIC-CM047	mg/L	-	<0.001	48	0.014	0.074	0.034	0.071
Dibromochloromethane	VIC-CM047	mg/L	-	<0.001	48	<0.001	0.001	<0.001	0.001
Bromodichloromethane	VIC-CM047	mg/L	-	<0.001	48	0.001	0.011	0.004	0.011
Trihalomethanes total	VIC-CM047	mg/L	0.25	<0.001	48	0.015	0.085	0.038	0.083
Semi volatile organic compounds (SVOC) Anilines and benzidines									
2-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
3-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
3,3′-Dichlorobenzidine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Chloroaniline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Nitroaniline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Aniline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Carbazole	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dibenzofuran	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Chlorinated hydrocarbons									
1,2-Dichlorobenzene	ALS Headspace GCMS	µg/L	1500	<0.25	36	<0.25	<0.25	<0.25	<0.25
1,2,4-Trichlorobenzene	US EPA 3510/8270	µg/L	30	<2	36	<2	<2	<2	<2
1,3-Dichlorobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
1,4-Dichlorobenzene	ALS Headspace GCMS	µg/L	40	<0.25	36	<0.25	<0.25	<0.25	<0.25
Hexachlorobenzene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
Hexachlorobutadiene	ALS Headspace GCMS	µg/L	0.7	<0.25	36	<0.25	<0.25	<0.25	<0.25
Hexachlorocyclopentadiene	US EPA 3510/8270	µg/L	-	<10	36	<10	<10	<10	<10
Hexachloroethane	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Hexachloropropylene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Pentachlorobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Haloethers									
4-Bromophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Chlorophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2

Table 7. Summary data for water quality zone 2: Belconnen

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Bis(2-chloroethoxy) methane	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Bis(2-chloroethyl) ether	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Nitroaromatics and ketones									
1-Naphthylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
1,3,5-Trinitrobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Picoline	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
2,6-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
4-Aminobiphenyl	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4-Nitroquinoline-N-oxide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
5-Nitro-o-toluidine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Acetophenone	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Azobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Chlorobenzilate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dimethylaminoazobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Isophorone	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Nitrobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Pentachloronitrobenzene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phenacetin	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Pronamide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Nitrosamines									
Methapyrilene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodibutylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodiethylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodi-n-propylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosodiphenyl & Diphenylamine	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
N-Nitrosomethylethylamine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosomorpholine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosopiperidine	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-Nitrosopyrrolidine	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
Organochlorine pesticides									
4,4′-DDD	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4,4′-DDE	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
4,4′-DDT	US EPA 3510/8270	µg/L	9	<4	36	<4	<4	<4	<4
Aldrin	US EPA 8081/8082	µg/L	0.3	<0.01	36	<0.01	<0.01	<0.01	<0.01
alpha-BHC	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
alpha-Endosulfan	US EPA 3510/8270	µg/L	20	<2	36	<2	<2	<2	<2
beta-BHC	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
beta-Endosulfan	US EPA 3510/8270	µg/L	20	<2	36	<2	<2	<2	<2
delta-BHC	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dieldrin	US EPA 8081/8082	µg/L	0.3	<0.01	36	<0.01	<0.01	<0.01	<0.01
Endrin	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Endosulfan sulfate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
gamma-BHC	US EPA 3510/8270	µg/L	10	<2	36	<2	<2	<2	<2
Heptachlor	US EPA 8081/8082	µg/L	0.3	<0.005	36	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2

Table 7. Summary data for water quality zone 2: Belconnen

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Organophosphorous pesticides									
Chlorfenvinphos	US EPA 3510/8270	µg/L	2	<2	36	<2	<2	<2	<2
Chlorpyrifos	US EPA 3510/8270	µg/L	10	<2	36	<2	<2	<2	<2
Chlorpyrifos-methyl	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Diazinon	US EPA 3510/8270	µg/L	4	<2	36	<2	<2	<2	<2
Dichlorvos	US EPA 3510/8270	µg/L	5	<2	36	<2	<2	<2	<2
Dimethoate	US EPA 3510/8270	µg/L	7	<2	36	<2	<2	<2	<2
Ethion	US EPA 3510/8270	µg/L	4	<2	36	<2	<2	<2	<2
Fenthion	US EPA 3510/8270	µg/L	7	<2	36	<2	<2	<2	<2
Malathion	US EPA 3510/8270	µg/L	70	<2	36	<2	<2	<2	<2
Pirimiphos-ethyl	ALS LC-MSMS	µg/L	0.5	<0.01	36	<0.01	<0.01	<0.01	<0.01
Prothiofos	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phenolic compounds									
2,3,4,6-Tetrachlorophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4-Dichlorophenol	US EPA 8270	µg/L	200	<0.1	36	<0.1	<0.1	<0.1	<0.1
2,4-Dimethylphenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4,5-Trichlorophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2,4,6-Trichlorophenol	US EPA 3510/8270	µg/L	20	<2	36	<2	<2	<2	<2
2,6-Dichlorophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Chlorophenol	US EPA 8270	µg/L	300	<0.05	36	<0.05	<0.05	<0.05	<0.05
2-Methylphenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Nitrophenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
3- & 4-Methylphenol	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
4-Chloro-3-Methylphenol	US EPA 3510/8270	µg/L		<2	36	<2	<2	<2	<2
Pentachlorophenol	US EPA 3510/8270	µg/L	10	<4	36	<4	<4	<4	<4
Phenol	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phthalates									
Bis(2-ethylhexyl) phthalate	US EPA 3510/8270	µg/L	10	<10	36	<10	<10	<10	<10
Bis(2-ethylhexyl) phthalate	US EPA 8270D	µg/L	10	<10	36	<10	<10	<10	<10
Butyl benzyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Butyl benzyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Diethyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Diethyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Dimethyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dimethyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 8270D	µg/L	-	<2	36	<2	<2	<2	<2
Polycyclic aromatic hydrocarbons									
2-Chloronaphthalene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
2-Methylnaphthalene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
3-Methylcholanthrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
7,12-Dimethylbenz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Acenaphthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Acenaphthene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Acenaphthylene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1

Table 7. Summary data for water quality zone 2: Belconnen

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Acenaphthylene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Anthracene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Benzo(a)pyrene	ALS GCMS-SIM	µg/L	0.01	<0.005	72	<0.005	<0.005	<0.005	<0.005
Benzo(b) fluoranthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benzo(k) fluoranthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benzo(b) & Benzo(k)fluoranthene	US EPA 3510/8270	µg/L	-	<4	36	<4	<4	<4	<4
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Chrysene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Chrysene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Fluoranthene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Fluoranthene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Fluorene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Fluorene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Indeno(1.2.3.cd)pyrene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Indeno(1.2.3-cd)pyrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
N-2-Fluorenyl Acetamide	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Phenanthrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
Phenanthrene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<1	36	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<2	36	<2	<2	<2	<2
PAHs (total)	US EPA 3510/8270	µg/L	-	<0.5	36	<0.5	<0.5	<0.5	<0.5

Table notes:

ADWG (Health)	Australian Drinking Water Guidelines – health guideline value
CFU/mL	colony forming units per millilitre
deg. C	degrees Celsius
LOR	the limit of reporting is the lowest value that the test method can reliably achieve and is denoted by a less than value symbol <
µg/L	micrograms per litre
µS/cm	micro siemens per centimetre
mg/L	milligrams per litre
MPN/100ml	most probable number per 100 millilitres
NTU	nephelometric units
Pt-Co	platinum-cobalt units

The 95th percentile is a statistical calculation based on 'normal' distribution. In the context of this report, it estimates the value for which 95 per cent of all the water that passes through the distribution system in this 12 month period falls below.

Where the table lists two distinct data sets for the same analyte, the analyte has been measured in two different suites of screens conducted by the laboratory: semi volatile organic compounds screen and phthalates screen.

* ADWG health guideline values were reduced for Lead (5µg/L) Manganese (0.1mg/L) and Selenium (4µg/L) on 25/06/2025. One sample included in this dataset was collected on or after this date, with all results being below the revised health guideline values

Table 8. Summary data for water quality zone 3: South Canberra, Woden and Weston Creek

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Microbiological									
E.Coli	AS 4276.21	MPN/100mL	<1	<1	267	<1	<1	<1	<1
Total coliforms	AS 4276.21	MPN/100mL	-	<1	267	<1	<1	<1	<1
Heterotrophic plate count	APHA 9215 B	CFU/mL	-	<1	273	<1	107	2	5
Physical									
Conductivity	APHA 2510 B	µS/cm	-	<2	24	64	239	123	224
pH	APHA 4500-H B	pH units	-	<0.01	274	6.22	8.79	7.51	7.79
Temperature	APHA 4500-H B	deg. C	-	<0.1	54	9.9	25.6	17.3	24.5
Total dissolved solids	APHA 2540 C	mg/L	-	<10	24	40	110	72	107
True colour	APHA 2120 B	Pt/Co	-	<1	48	<1	2	<1	1
Turbidity	APHA 2130 B	NTU	-	<0.1	55	0.1	0.6	0.3	0.5
Inorganic									
Alkalinity bicarb	APHA 2320 A/B	mg/L	-	<0.1	55	24.8	47.3	36.5	44.2
Alkalinity carb	APHA 2320 A/B	mg/L	-	<0.1	55	<0.1	<0.1	<0.1	<0.1
Alkalinity hydrox	APHA 2320 A/B	mg/L	-	<0.1	55	<0.1	<0.1	<0.1	<0.1
Alkalinity total	APHA 2320 A/B	mg/L	-	<1	55	25	47	36	44
Aluminium acid soluble	USEPA 200.8	µg/L	-	<5	24	21	41	30	36
Asbestos	AS4964-2000	g/kg	-	Absent	12	Absent	Absent	Absent	Absent
Calcium dissolved	USEPA 200.7	mg/L	-	<0.05	24	9.16	17.00	12.12	16.20
Chloride	APHA 21st Ed. 2005, Part 4110 B	mg/L	-	<0.1	12	1.4	7.8	4.1	7.7
Chlorine combined	APHA 4500 -CL G	mg/L	-	<0.03	274	<0.03	0.22	0.06	0.16
Chlorine free	APHA 4500 -CL G	mg/L	-	<0.03	274	0.14	1.84	1.08	1.39
Chlorine total	APHA 4500 -CL G	mg/L	5	<0.03	274	0.20	1.84	1.14	1.47
Cyanide	APHA 4500_CN	mg/L	0.08	<0.004	12	<0.004	<0.004	<0.004	<0.004
Flouride	APHA 21st Ed. 2005, Part 4110 B	mg/L	1.5	<0.05	24	0.67	0.90	0.78	0.86
Hardness total	APHA 2340 B	mg/L	-	<1	24	27	58	37	56
Iodide	VIC-CM078	mg/L	0.5	<0.01	12	<0.01	<0.01	<0.01	<0.01
Magnesium dissolved	USEPA 200.7	mg/L	-	<0.05	24	0.96	4.18	1.55	4.11
Nitrate	APHA 21st Ed. 2005, Part 4110 B	mg/L N	50	<0.1	12	<0.1	0.3	0.1	0.2
Potassium dissolved	USEPA 200.7	mg/L	-	<0.1	12	0.5	1.5	0.7	1.5
Sodium dissolved	USEPA 200.7	mg/L	-	<0.1	12	2.9	7.3	3.8	7.2
Sulphate	APHA 21st Ed. 2005, Part 4110 B	mg/L SO4	-	<0.4	12	<0.4	20.1	4.6	20.0
Total metals									
Aluminium total	USEPA 200.8	µg/L	-	<9	24	25	40	31	38
Antimony total	USEPA 200.8	µg/L	3	<3	25	<3	<3	<3	<3
Arsenic total	USEPA 200.8	µg/L	10	<1	25	<1	<1	<1	<1
Barium total	USEPA 200.8	µg/L	2000	<0.5	25	3.0	6.5	4.2	6.2
Beryllium total	USEPA 200.8	µg/L	60	<0.1	25	<0.1	<0.1	<0.1	<0.1
Boron total	USEPA 200.7	mg/L	4	<0.01	13	<0.01	<0.01	<0.01	<0.01
Cadmium total	USEPA 200.8	µg/L	2	<0.05	25	<0.05	<0.05	<0.05	<0.05
Chromium total	USEPA 200.8	µg/L	-	<2	24	<2	<2	<2	<2
Cobalt total	USEPA 200.8	µg/L	-	<0.2	25	<0.2	0.5	<0.2	<0.2
Copper total	USEPA 200.8	µg/L	2000	<1	49	1	65	14	37
Iron total	USEPA 200.7	mg/L	-	<0.01	55	<0.01	0.03	<0.01	0.03
Lead total	USEPA 200.8	µg/L	10	<0.2	49	<0.2	2.3	0.4	1.3

Table 8. Summary data for water quality zone 3: South Canberra, Woden and Weston Creek

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Manganese total	USEPA 200.7	mg/L	0.5	<0.001	48	<0.001	0.017	0.004	0.011
Mercury total	USEPA 200.8	µg/L	1	<0.1	25	<0.1	<0.1	<0.1	<0.1
Molybdenium total	USEPA 200.8	µg/L	50	<1	25	<1	<1	<1	<1
Nickel total	USEPA 200.8	µg/L	20	<1	25	<1	<1	<1	<1
Selenium total	USEPA 200.8	µg/L	10	<1	25	<1	<1	<1	<1
Silver total	USEPA 200.8	µg/L	100	<1	25	<1	<1	<1	<1
Zinc total	USEPA 200.8	µg/L	-	<5	24	<5	7	<5	6
Haloacetic acids									
Bromoacetic acid	ALS: Headspace GCMS	µg/L	-	<5	30	<5	<5	<5	<5
Bromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	30	<1	6	2	5
Bromodichloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	30	<1	9	3	8
Chloroacetic acid	ALS: Headspace GCMS	µg/L	150	<1	30	1	5	3	4
Dibromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	30	<10	<10	<10	<10
Dibromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	30	5	5	5	5
Dichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	30	8	39	18	30
Tribromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	30	<10	<10	<10	<10
Trichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	30	8	53	24	45
Sum of Haloacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	30	18	111	50	91
Trihalomethanes									
Bromoform	VIC-CM047	mg/L	-	<0.001	30	<0.001	<0.001	<0.001	<0.001
Chloroform	VIC-CM047	mg/L	-	<0.001	30	0.012	0.076	0.031	0.067
Dibromochloromethane	VIC-CM047	mg/L	-	<0.001	30	<0.001	0.001	<0.001	0.001
Bromodichloromethane	VIC-CM047	mg/L	-	<0.001	30	0.001	0.012	0.004	0.011
Trihalomethanes total	VIC-CM047	mg/L	0.25	<0.001	30	0.013	0.089	0.035	0.077
Semi volatile organic compounds (SVOC) Anilines and benzidines									
2-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
3-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
3,3'-Dichlorobenzidine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Chloroaniline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Nitroaniline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Aniline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Carbazole	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dibenzofuran	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Chlorinated hydrocarbons									
1,2-Dichlorobenzene	ALS Headspace GCMS	µg/L	1500	<0.25	24	<0.25	<0.25	<0.25	<0.25
1,2,4-Trichlorobenzene	US EPA 3510/8270	µg/L	30	<2	24	<2	<2	<2	<2
1,3-Dichlorobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
1,4-Dichlorobenzene	ALS Headspace GCMS	µg/L	40	<0.25	24	<0.25	<0.25	<0.25	<0.25
Hexachlorobenzene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
Hexachlorobutadiene	ALS Headspace GCMS	µg/L	0.7	<0.25	24	<0.25	<0.25	<0.25	<0.25
Hexachlorocyclopentadiene	US EPA 3510/8270	µg/L	-	<10	24	<10	<10	<10	<10
Hexachloroethane	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Hexachloropropylene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Pentachlorobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Haloethers									
4-Bromophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Chlorophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2

Table 8. Summary data for water quality zone 3: South Canberra, Woden and Weston Creek

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Bis(2-chloroethoxy) methane	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Bis(2-chloroethyl) ether	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Nitroaromatics and ketones									
1-Naphthylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
1,3,5-Trinitrobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Picoline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
2,6-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
4-Aminobiphenyl	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Nitroquinoline-N-oxide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
5-Nitro-o-toluidine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Acetophenone	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Azobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Chlorobenzilate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dimethylaminoazobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Isophorone	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Nitrobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Pentachloronitrobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phenacetin	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Pronamide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Nitrosamines									
Methapyrilene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodibutylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodiethylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodi-n-propylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodiphenyl & Diphenylamine	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
N-Nitrosomethylethylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosomorpholine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosopiperidine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosopyrrolidine	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
Organochlorine pesticides									
4,4′-DDD	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4,4′-DDE	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4,4′-DDT	US EPA 3510/8270	µg/L	9	<4	24	<4	<4	<4	<4
Aldrin	US EPA 8081/8082	µg/L	0.3	<0.01	24	<0.01	<0.01	<0.01	<0.01
alpha-BHC	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
alpha-Endosulfan	US EPA 3510/8270	µg/L	20	<2	24	<2	<2	<2	<2
beta-BHC	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
beta-Endosulfan	US EPA 3510/8270	µg/L	20	<2	24	<2	<2	<2	<2
delta-BHC	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dieldrin	US EPA 8081/8082	µg/L	0.3	<0.01	24	<0.01	<0.01	<0.01	<0.01
Endrin	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Endosulfan sulfate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
gamma-BHC	US EPA 3510/8270	µg/L	10	<2	24	<2	<2	<2	<2
Heptachlor	US EPA 8081/8082	µg/L	0.3	<0.005	24	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2

Table 8. Summary data for water quality zone 3: South Canberra, Woden and Weston Creek

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Organophosphorous pesticides									
Chlorfenvinphos	US EPA 3510/8270	µg/L	2	<2	24	<2	<2	<2	<2
Chlorpyrifos	US EPA 3510/8270	µg/L	10	<2	24	<2	<2	<2	<2
Chlorpyrifos-methyl	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Diazinon	US EPA 3510/8270	µg/L	4	<2	24	<2	<2	<2	<2
Dichlorvos	US EPA 3510/8270	µg/L	5	<2	24	<2	<2	<2	<2
Dimethoate	US EPA 3510/8270	µg/L	7	<2	24	<2	<2	<2	<2
Ethion	US EPA 3510/8270	µg/L	4	<2	24	<2	<2	<2	<2
Fenthion	US EPA 3510/8270	µg/L	7	<2	24	<2	<2	<2	<2
Malathion	US EPA 3510/8270	µg/L	70	<2	24	<2	<2	<2	<2
Pirimiphos-ethyl	ALS LC-MSMS	µg/L	0.5	<0.01	24	<0.01	<0.01	<0.01	<0.01
Prothiofos	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phenolic compounds									
2,3,4,6-Tetrachlorophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4-Dichlorophenol	US EPA 8270	µg/L	200	<0.1	24	<0.1	<0.1	<0.1	<0.1
2,4-Dimethylphenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4,5-Trichlorophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4,6-Trichlorophenol	US EPA 3510/8270	µg/L	20	<2	24	<2	<2	<2	<2
2,6-Dichlorophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Chlorophenol	US EPA 8270	µg/L	300	<0.05	24	<0.05	<0.05	<0.05	<0.05
2-Methylphenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Nitrophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
3- & 4-Methylphenol	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
4-Chloro-3-Methylphenol	US EPA 3510/8270	µg/L		<2	24	<2	<2	<2	<2
Pentachlorophenol	US EPA 3510/8270	µg/L	10	<4	24	<4	<4	<4	<4
Phenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phthalates									
Bis(2-ethylhexyl) phthalate	US EPA 3510/8270	µg/L	10	<10	24	<10	<10	<10	<10
Bis(2-ethylhexyl) phthalate	US EPA 8270D	µg/L	10	<10	24	<10	<10	<10	<10
Butyl benzyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Butyl benzyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Diethyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Diethyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Dimethyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dimethyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Polycyclic aromatic hydrocarbons									
2-Chloronaphthalene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Methylnaphthalene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
3-Methylcholanthrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
7,12-Dimethylbenz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Acenaphthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Acenaphthene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Acenaphthylene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1

Table 8. Summary data for water quality zone 3: South Canberra, Woden and Weston Creek

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Acenaphthylene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Anthracene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Benzo(a)pyrene	ALS GCMS-SIM	µg/L	0.01	<0.005	48	<0.005	<0.005	<0.005	<0.005
Benzo(b) fluoranthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benzo(k) fluoranthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benzo(b) & Benzo(k)fluoranthene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Chrysene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Chrysene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Fluoranthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Fluoranthene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Fluorene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Fluorene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Indeno(1.2.3.cd)pyrene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Indeno(1.2.3-cd)pyrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-2-Fluorenyl Acetamide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Phenanthrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phenanthrene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
PAHs (total)	US EPA 3510/8270	µg/L	-	<0.5	24	<0.5	<0.5	<0.5	<0.5

Table notes:

ADWG (Health)	Australian Drinking Water Guidelines – health guideline value
CFU/mL	colony forming units per millilitre
deg. C	degrees Celsius
LOR	the limit of reporting is the lowest value that the test method can reliably achieve and is denoted by a less than value symbol <
µg/L	micrograms per litre
µS/cm	micro siemens per centimetre
mg/L	milligrams per litre
MPN/100ml	most probable number per 100 millilitres
NTU	nephelometric units
Pt-Co	platinum-cobalt units

The 95th percentile is a statistical calculation based on 'normal' distribution. In the context of this report, it estimates the value for which 95 per cent of all the water that passes through the distribution system in this 12 month period falls below.

Where the table lists two distinct data sets for the same analyte, the analyte has been measured in two different suites of screens conducted by the laboratory: semi volatile organic compounds screen and phthalates screen.

* ADWG health guideline values were reduced for Lead (5µg/L) Manganese (0.1mg/L) and Selenium (4µg/L) on 25/06/2025. One sample included in this dataset was collected on or after this date, with all results being below the revised health guideline values

Table 9. Summary data for water quality zone 4: Tuggeranong

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Microbiological									
E.Coli	AS 4276.21	MPN/100mL	<1	<1	267	<1	<1	<1	<1
Total coliforms	AS 4276.21	MPN/100mL	-	<1	267	<1	24	<1	<1
Heterotrophic plate count	APHA 9215 B	CFU/mL	-	<1	267	<1	151	4	15
Physical									
Conductivity	APHA 2510 B	µS/cm	-	<2	24	66	236	123	223
pH	APHA 4500-H B	pH units	-	<0.01	267	6.31	8.77	7.74	8.37
Temperature	APHA 4500-H B	deg. C	-	<0.1	50	8.5	26.1	17.9	25.2
Total dissolved solids	APHA 2540 C	mg/L	-	<10	24	40	114	73	108
True colour	APHA 2120 B	Pt/Co	-	<1	51	<1	2	<1	<1
Turbidity	APHA 2130 B	NTU	-	<0.1	51	0.1	1.6	0.3	0.5
Inorganic									
Alkalinity bicarb	APHA 2320 A/B	mg/L	-	<0.1	48	28.6	45.0	36.7	43.5
Alkalinity carb	APHA 2320 A/B	mg/L	-	<0.1	48	<0.1	5.4	0.2	<0.1
Alkalinity hydrox	APHA 2320 A/B	mg/L	-	<0.1	48	<0.1	<0.1	<0.1	<0.1
Alkalinity total	APHA 2320 A/B	mg/L	-	<1	48	29	45	37	44
Aluminium acid soluble	USEPA 200.8	µg/L	-	<5	25	19	108	34	50
Asbestos	AS4964-2000	g/kg	-	Absent	12	Absent	Absent	Absent	Absent
Calcium dissolved	USEPA 200.7	mg/L	-	<0.05	24	9.10	17.10	12.36	16.62
Chloride	APHA 21st Ed. 2005, Part 4110 B	mg/L	-	<0.1	12	1.4	7.7	4.0	7.1
Chlorine combined	APHA 4500 -CL G	mg/L	-	<0.03	267	<0.03	0.19	0.06	0.16
Chlorine free	APHA 4500 -CL G	mg/L	-	<0.03	267	0.42	1.53	0.95	1.22
Chlorine total	APHA 4500 -CL G	mg/L	5	<0.03	267	0.44	1.70	1.00	1.30
Cyanide	APHA 4500_CN	mg/L	0.08	<0.004	12	<0.004	<0.004	<0.004	<0.004
Flouride	APHA 21st Ed. 2005, Part 4110 B	mg/L	1.5	<0.05	24	0.72	0.89	0.80	0.86
Hardness total	APHA 2340 B	mg/L	-	<1	24	27	59	37	57
Iodide	VIC-CM078	mg/L	0.5	<0.01	12	<0.01	<0.01	<0.01	<0.01
Magnesium dissolved	USEPA 200.7	mg/L	-	<0.05	24	0.83	4.30	1.46	4.05
Nitrate	APHA 21st Ed. 2005, Part 4110 B	mg/L N	50	<0.1	12	<0.1	0.3	0.1	0.2
Potassium dissolved	USEPA 200.7	mg/L	-	<0.1	12	0.5	1.5	0.7	1.2
Sodium dissolved	USEPA 200.7	mg/L	-	<0.1	12	2.6	7.2	3.6	6.2
Sulphate	APHA 21st Ed. 2005, Part 4110 B	mg/L SO4	-	<0.4	12	<0.4	20.2	4.2	16.8
Total metals									
Aluminium total	USEPA 200.8	µg/L	-	<9	24	23	123	36	54
Antimony total	USEPA 200.8	µg/L	3	<3	24	<3	<3	<3	<3
Arsenic total	USEPA 200.8	µg/L	10	<1	24	<1	<1	<1	<1
Barium total	USEPA 200.8	µg/L	2000	<0.5	24	2.2	6.2	4.0	6.1
Beryllium total	USEPA 200.8	µg/L	60	<0.1	24	<0.1	<0.1	<0.1	<0.1
Boron total	USEPA 200.7	mg/L	4	<0.01	12	<0.01	<0.01	<0.01	<0.01
Cadmium total	USEPA 200.8	µg/L	2	<0.05	24	<0.05	<0.05	<0.05	<0.05
Chromium total	USEPA 200.8	µg/L	-	<2	24	<2	<2	<2	<2
Cobalt total	USEPA 200.8	µg/L	-	<0.2	24	<0.2	<0.2	<0.2	<0.2
Copper total	USEPA 200.8	µg/L	2000	<1	48	2	67	12	31
Iron total	USEPA 200.7	mg/L	-	<0.01	51	<0.01	0.08	<0.01	0.03
Lead total	USEPA 200.8	µg/L	10	<0.2	48	<0.2	8.8	0.3	0.4

Table 9. Summary data for water quality zone 4: Tuggeranong

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Manganese total	USEPA 200.7	mg/L	0.5	<0.001	48	<0.001	0.077	0.006	0.013
Mercury total	USEPA 200.8	µg/L	1	<0.1	25	<0.1	<0.1	<0.1	<0.1
Molybdenium total	USEPA 200.8	µg/L	50	<1	24	<1	<1	<1	<1
Nickel total	USEPA 200.8	µg/L	20	<1	24	<1	<1	<1	<1
Selenium total	USEPA 200.8	µg/L	10	<1	24	<1	<1	<1	<1
Silver total	USEPA 200.8	µg/L	100	<1	24	<1	<1	<1	<1
Zinc total	USEPA 200.8	µg/L	-	<5	24	<5	11	<5	9
Haloacetic acids									
Bromoacetic acid	ALS: Headspace GCMS	µg/L	-	<5	23	<5	<5	<5	<5
Bromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	23	<1	6	2	4
Bromodichloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	23	1	9	3	8
Chloroacetic acid	ALS: Headspace GCMS	µg/L	150	<1	23	1	4	2	4
Dibromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	23	<10	<10	<10	<10
Dibromochloroacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	23	5	5	5	5
Dichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	23	8	34	16	24
Tribromoacetic Acid	ALS: Headspace GCMS	µg/L	-	<10	23	<10	<10	<10	<10
Trichloroacetic Acid	ALS: Headspace GCMS	µg/L	100	<1	23	12	45	22	36
Sum of Haloacetic Acid	ALS: Headspace GCMS	µg/L	-	<1	23	23	98	44	72
Trihalomethanes									
Bromoform	VIC-CM047	mg/L	-	<0.001	24	<0.001	<0.001	<0.001	<0.001
Chloroform	VIC-CM047	mg/L	-	<0.001	24	0.014	0.066	0.028	0.058
Dibromochloromethane	VIC-CM047	mg/L	-	<0.001	24	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	VIC-CM047	mg/L	-	<0.001	24	0.001	0.011	0.003	0.010
Trihalomethanes total	VIC-CM047	mg/L	0.25	<0.001	24	0.015	0.077	0.031	0.068
Semi volatile organic compounds (SVOC) Anilines and benzidines									
2-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
3-Nitroaniline	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
3,3′-Dichlorobenzidine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Chloroaniline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Nitroaniline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Aniline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Carbazole	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dibenzofuran	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Chlorinated hydrocarbons									
1,2-Dichlorobenzene	ALS Headspace GCMS	µg/L	1500	<0.25	24	<0.25	<0.25	<0.25	<0.25
1,2,4-Trichlorobenzene	US EPA 3510/8270	µg/L	30	<2	24	<2	<2	<2	<2
1,3-Dichlorobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
1,4-Dichlorobenzene	ALS Headspace GCMS	µg/L	40	<0.25	24	<0.25	<0.25	<0.25	<0.25
Hexachlorobenzene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
Hexachlorobutadiene	ALS Headspace GCMS	µg/L	0.7	<0.25	24	<0.25	<0.25	<0.25	<0.25
Hexachlorocyclopentadiene	US EPA 3510/8270	µg/L	-	<10	24	<10	<10	<10	<10
Hexachloroethane	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Hexachloropropylene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Pentachlorobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Haloethers									
4-Bromophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Chlorophenyl phenyl ether	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2

Table 9. Summary data for water quality zone 4: Tuggeranong

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Bis(2-chloroethoxy) methane	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Bis(2-chloroethyl) ether	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Nitroaromatics and ketones									
1-Naphthylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
1,3,5-Trinitrobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Picoline	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
2,6-Dinitrotoluene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
4-Aminobiphenyl	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4-Nitroquinoline-N-oxide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
5-Nitro-o-toluidine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Acetophenone	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Azobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Chlorobenzilate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dimethylaminoazobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Isophorone	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Nitrobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Pentachloronitrobenzene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phenacetin	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Pronamide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Nitrosamines									
Methapyrilene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodibutylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodiethylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodi-n-propylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosodiphenyl & Diphenylamine	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
N-Nitrosomethylethylamine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosomorpholine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosopiperidine	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-Nitrosopyrrolidine	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
Organochlorine pesticides									
4,4′-DDD	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4,4′-DDE	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
4,4′-DDT	US EPA 3510/8270	µg/L	9	<4	24	<4	<4	<4	<4
Aldrin	US EPA 8081/8082	µg/L	0.3	<0.01	24	<0.01	<0.01	<0.01	<0.01
alpha-BHC	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
alpha-Endosulfan	US EPA 3510/8270	µg/L	20	<2	24	<2	<2	<2	<2
beta-BHC	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
beta-Endosulfan	US EPA 3510/8270	µg/L	20	<2	24	<2	<2	<2	<2
delta-BHC	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dieldrin	US EPA 8081/8082	µg/L	0.3	<0.01	24	<0.01	<0.01	<0.01	<0.01
Endrin	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Endosulfan sulfate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
gamma-BHC	US EPA 3510/8270	µg/L	10	<2	24	<2	<2	<2	<2
Heptachlor	US EPA 8081/8082	µg/L	0.3	<0.005	24	<0.005	<0.005	<0.005	<0.005
Heptachlor epoxide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2

Table 9. Summary data for water quality zone 4: Tuggeranong

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Organophosphorous pesticides									
Chlorfenvinphos	US EPA 3510/8270	µg/L	2	<2	24	<2	<2	<2	<2
Chlorpyrifos	US EPA 3510/8270	µg/L	10	<2	24	<2	<2	<2	<2
Chlorpyrifos-methyl	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Diazinon	US EPA 3510/8270	µg/L	4	<2	24	<2	<2	<2	<2
Dichlorvos	US EPA 3510/8270	µg/L	5	<2	24	<2	<2	<2	<2
Dimethoate	US EPA 3510/8270	µg/L	7	<2	24	<2	<2	<2	<2
Ethion	US EPA 3510/8270	µg/L	4	<2	24	<2	<2	<2	<2
Fenthion	US EPA 3510/8270	µg/L	7	<2	24	<2	<2	<2	<2
Malathion	US EPA 3510/8270	µg/L	70	<2	24	<2	<2	<2	<2
Pirimiphos-ethyl	ALS LC-MSMS	µg/L	0.5	<0.01	24	<0.01	<0.01	<0.01	<0.01
Prothiofos	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phenolic compounds									
2,3,4,6-Tetrachlorophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4-Dichlorophenol	US EPA 8270	µg/L	200	<0.1	24	<0.1	<0.1	<0.1	<0.1
2,4-Dimethylphenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4,5-Trichlorophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2,4,6-Trichlorophenol	US EPA 3510/8270	µg/L	20	<2	24	<2	<2	<2	<2
2,6-Dichlorophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Chlorophenol	US EPA 8270	µg/L	300	<0.05	24	<0.05	<0.05	<0.05	<0.05
2-Methylphenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Nitrophenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
3- & 4-Methylphenol	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
4-Chloro-3-Methylphenol	US EPA 3510/8270	µg/L		<2	24	<2	<2	<2	<2
Pentachlorophenol	US EPA 3510/8270	µg/L	10	<4	24	<4	<4	<4	<4
Phenol	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phthalates									
Bis(2-ethylhexyl) phthalate	US EPA 3510/8270	µg/L	10	<10	24	<10	<10	<10	<10
Bis(2-ethylhexyl) phthalate	US EPA 8270D	µg/L	10	<10	24	<10	<10	<10	<10
Butyl benzyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Butyl benzyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Diethyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Diethyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Dimethyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dimethyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-butyl phthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Di-n-octylphthalate	US EPA 8270D	µg/L	-	<2	24	<2	<2	<2	<2
Polycyclic aromatic hydrocarbons									
2-Chloronaphthalene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
2-Methylnaphthalene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
3-Methylcholanthrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
7,12-Dimethylbenz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Acenaphthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Acenaphthene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Acenaphthylene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1

Table 9. Summary data for water quality zone 4: Tuggeranong

Analyte	Method ID	Units	ADWG (Health)	Limit of Reporting	No. of Samples	Min.	Max.	Mean	95th Percentile
Acenaphthylene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Anthracene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benz(a)anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Benzo(a)pyrene	ALS GCMS-SIM	µg/L	0.01	<0.005	48	<0.005	<0.005	<0.005	<0.005
Benzo(b) fluoranthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benzo(k) fluoranthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benzo(b) & Benzo(k)fluoranthene	US EPA 3510/8270	µg/L	-	<4	24	<4	<4	<4	<4
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Benzo(g.h.i)perylene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Chrysene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Chrysene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Dibenz(a.h)anthracene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Fluoranthene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Fluoranthene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Fluorene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Fluorene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Indeno(1.2.3.cd)pyrene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Indeno(1.2.3-cd)pyrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
N-2-Fluorenyl Acetamide	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Naphthalene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Phenanthrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
Phenanthrene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<1	24	<1	<1	<1	<1
Pyrene	US EPA 3510/8270	µg/L	-	<2	24	<2	<2	<2	<2
PAHs (total)	US EPA 3510/8270	µg/L	-	<0.5	24	<0.5	<0.5	<0.5	<0.5

Table notes:

ADWG (Health)	Australian Drinking Water Guidelines – health guideline value
CFU/mL	colony forming units per millilitre
deg. C	degrees Celsius
LOR	limit of reporting
µg/L	micrograms per litre
µS/cm	micro siemens per centimetre
mg/L	milligrams per litre
MPN/100ml	most probable number per 100 millilitres
NTU	nephelometric units
Pt-Co	platinum-cobalt units

The 95th percentile is a statistical calculation based on 'normal' distribution. In the context of this report, it estimates the value for which 95 per cent of all the water that passes through the distribution system in this 12 month period falls below.

Where the table lists two distinct data sets for the same analyte, the analyte has been measured in two different suites of screens conducted by the laboratory: semi volatile organic compounds screen and phthalates screen.

* ADWG health guideline values were reduced for Lead (5µg/L) Manganese (0.1mg/L) and Selenium (4µg/L) on 25/06/2025. No samples included in this dataset were collected on or after this date.

REFERENCES

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ABBREVIATIONS

ACT	Australian Capital Territory
ACT Heath	ACT Health Directorate
ADWG	*Australian Drinking Water Guidelines (2011)*
ADWG (Health)	*Australian Drinking Water Guidelines – health guideline value*
AS/NZS	Australian Standards/New Zealand Standards
CFU	colony forming units
cm	centimetre
cm^2	centimetre squared
deg. C	degrees Celsius
E. coli	*Escherichia coli*
GL	gigalitre
GMP	good manufacturing process
HACCP	hazard analysis and critical control point
HBTs	health based targets
ICRC	Independent Competition and Regulatory Commission
ISO	International Standards Organisation
IWMP	Integrated Water Management Program
km	kilometre
L	litre
LOR	limit of reporting
mg	milligram
mJ	megajoule
ML	megalitre
MIB	2-methylisoborneol
mL	millilitre
mm	millimetre
mm^3	millimetres cubed
MPN	most probable number
µg	micrograms
µS	microsiemens
NATA	National Association of Testing Authorities
NHMRC	National Health and Medical Research Council
NSW	New South Wales
NTU	nephelometric turbidity units
PFAS	Per- and Polyfluoroalkyl Substances
Pt-Co	platinum-cobalt units
SVOC	semi volatile organic compound
The Code	Public Health (Drinking Water) Code of Practice (2007)
THM	trihalomethanes
UV	ultraviolet light
WaterRA	Water Research Australia
WSAA	Water Services Association of Australia
WTP	water treatment plant

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«भाषाई सहायता प्राप्त करने के लिए, ऊपर दिए गए नंबर पर कॉल करें»।

«भाषा सम्बन्धी सहयोग लिन, माथिको नम्बरमा फोन गर्नुहोस्।»

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“Để được hỗ trợ về ngôn ngữ, hãy gọi đến số điện thoại ở trên”.

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