Quarterly Drinking Water Quality Report

Ryde Delivery System 1 January 2026 to 31 March 2026

12 May 2026

Your water quality

Drinking water management

We supply you with high quality, safe drinking water – managed under our drinking water quality management system. Our water is among the world's best!

WaterNSW manages Sydney's catchments to provide the best quality water for us to treat. We treat your water by first filtering it, then disinfecting it. This is part of what's called the 'multiple-barrier' approach. We continuously monitor these steps to ensure our systems are working as expected.

During this quarter, our monitoring confirmed that the drinking water we delivered to you was safe and of high quality.

Testing for water quality

Our aim is to provide you with high quality, safe drinking water treated to meet the *Australian Drinking Water Guidelines*. Our Drinking Water Quality Management System applies the frameworks to manage drinking water quality and testing water quality is one part of this system.

We test your water for up to 70 different characteristics including:

- taste
- colour
- odour
- micro-organisms
- chemical content.

This report summarises a selection of health characteristics and key aesthetic (look, taste, and smell) characteristics.

We take water samples from the catchments, at the inlet and outlet of water filtration plants, from the reservoirs and from about 720 customers' front garden taps.

Our laboratories use internationally accredited methods for all our testing.

The tables in this report present water quality data from the analysis of water samples we collect at various stages of the water supply chain, from raw water sources, through treatment to the water supplied to your tap.



Our Drinking Water Quality Management System

We use a number of steps to ensure your tap water is high quality and safe to drink. Daily performance results can be found on our website.

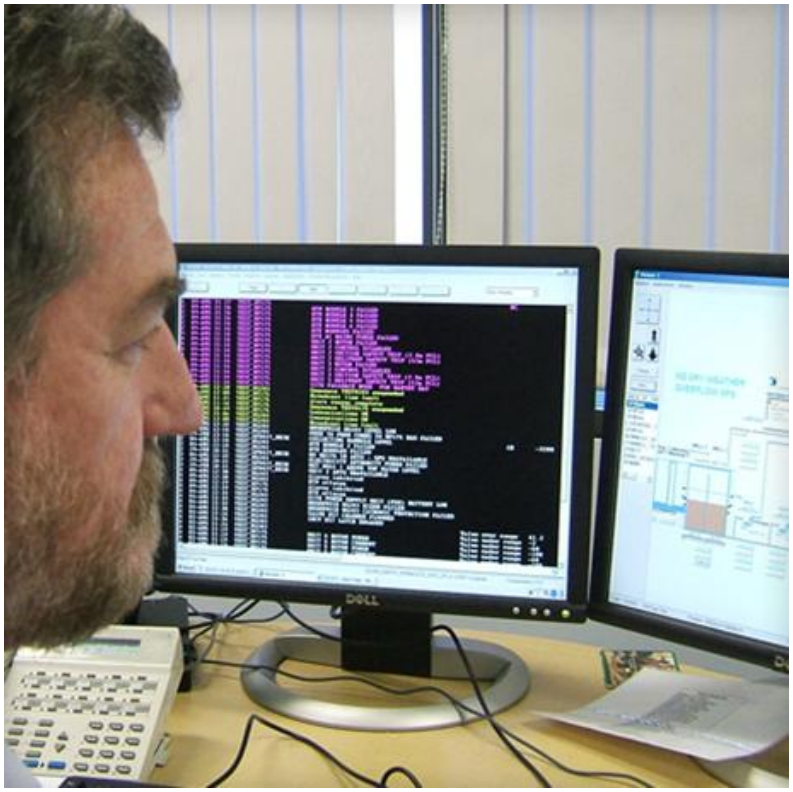
The *Australian Drinking Water Guidelines* Framework for Management of Drinking Water Quality uses a preventive risk management approach that encompasses all the steps in water production from the catchment to the customer.

Sydney Water works collaboratively with WaterNSW to ensure that the best possible water quality is supplied to our customers. Sydney Water and WaterNSW apply a multi-barrier approach to ensure the water supply is safe. Some of the steps or 'barriers' we use to manage water quality are:

- Protecting water catchments (e.g. lakes, rivers and reservoirs)
- Selecting the best available source of water
- Filtering the water at water filtration plants
- Adding chlorine at our water filtration plants and in the network to ensure your water is free of harmful pathogens
- Adding fluoride to support dental health.

We monitor these different steps constantly at critical control points to ensure that your drinking water remains safe and of high quality. You can see current results for these points on our Daily Drinking Water Quality report.

We monitor water quality to verify that these barriers are working. The results in the remainder of this report are considered 'verification results.'



Water quality test results

At your tap

Most health guideline values for chemicals are based on a lifetime of exposure. The *Australian Drinking Water Guidelines* recognise that occasionally there may be health or aesthetic related test results that fall outside the guideline values and that these results are not necessarily an immediate threat to health. For most characteristics, the guidelines do not require 100% of results to fall within the guideline values.

Sydney Water has several areas it delivers water to. We call these Delivery Systems. Our compliance to the guidelines is measured for each Delivery System and is calculated over a 12-month period using the following long-term performance measures:

- For the indicator bacterium *Escherichia coli (E. coli)*, at least 98% of scheduled samples must contain no *E. coli*. In addition to continuous online monitoring of filter performance, this verifies that our filtration and disinfection processes were effective in removing bacteria from the water initially and that the system used to deliver water to your tap remains clean.
- For health-related chemical characteristics, the upper bound of the 95% confidence interval for the 95th percentile must be less than the guideline value.
- For aesthetic characteristics, the upper bound of the 95% confidence interval for the mean must be less than the guideline value.

The following tables show data for the customer supply systems that we use to measure Sydney Water's performance against the long-term health and aesthetic guideline values.

More data including typical ranges over a longer period can be found in the *Safe Drinking Water* and *Water Analysis* pages on the Sydney Water website.

The data we present here isn't exhaustive but shows the characteristics of water which we regularly test for which the *Australian Drinking Water Guidelines* has set a health and/or aesthetic guideline value.



Table 1 Water Quality Health Characteristics for the Ryde Delivery System

Characteristic	Unit of measure	ADWG health value	No. of samples 1 Apr 2025 to 31 Mar 2026	No. of exceptions	Long-term performance (assessment over 12-month period)	% of test results complying with the guideline	Met long-term performance measure
E. coli	orgs/100 mL	not detected in 100 mL sample	1191	1	At least 98% of test results <1	99.9%	Yes[4]
fluoride[2]	mg/L	1.5	171	1	At least 95% of test results 0.90 to 1.50 mg/L	99.42%	Yes[5]
free chlorine[6]	mg/L	5	1191	0	The 95th percentile value is less than the respective ADWG health value		Yes
monochloramine	mg/L	3	1191	0			Yes
antimony[1]	mg/L	0.003	29	0			Yes
cadmium[1]	mg/L	0.002	29	0			Yes
cyanide[1]	mg/L	0.08	2	0			Yes
copper	mg/L	2	37	0			Yes
lead	mg/L	0.005	37	0			Yes
nitrate as NO_3	mg/L	50	37	0			Yes
nitrite as NO_2	mg/L	3	37	0			Yes
nickel[1]	mg/L	0.02	29	0			Yes
sulfate[1]	mg/L	500	7	0			Yes
chromium[1,3]	mg/L	0.05 (as Cr(VI))	29	0			Yes
manganese	mg/L	0.1	120	0			Yes

Characteristic	Unit of measure	ADWG health value	No. of samples 1 Apr 2025 to 31 Mar 2026	No. of exceptions	Long-term performance (assessment over 12-month period)	% of test results complying with the guideline	Met long-term performance measure
n-nitrosodimethylamine[1]	mg/L	0.0001	8	0			Yes
acrylamide[1]	mg/L	0.0002	6	0			Yes
total trihalomethanes	mg/L	0.25	60	0	The 95th percentile statistic calculated for combined customer supply system and WFP less than 0.25 mg/L		Yes

[1] Insufficient number of samples collected to calculate 95th percentile. The maximum reading will be used for assessment of long-term performance of each of these health-related chemical parameter against the ADWG values.

[2] The long-term fluoride performance for each delivery system in this table is based on both treated water from Water Filtration Plant (WFP) and customer tap data. We target a value of 1.0 mg/L. The ADWG specifies a guideline value for fluoride of <1.5 mg/L. The NSW Code of Practice for Fluoridation of Public Water Supplies sets a target that each year >95% of all routine fluoride samples (both treated water from WFPs and customer taps) fall within the concentration range of 0.90 to 1.50 mg/L.

[3] The ADWG sets a guideline value for hexavalent chromium (Cr(VI)) however Sydney Water measures total chromium which includes hexavalent chromium.

[4] During the 12-month period from 1 April 2025 to 31 March 2026, there was one E. coli exceptions in the Ryde Delivery System. This delivery system still complied against long-term performance as at least 98% of the scheduled monthly samples contained no E. coli.

[5] During the 12-month period from 1 April 2025 to 31 March 2026, one sample collected at Prospect WFP for fluoride showed a result that was below the target concentration range of 0.90 to 1.50 mg/L. Compliance was achieved as >95% of samples were within the required range over a 12-month period.

[6] 5 mg/L is the ADWG health value for total chlorine, there is no maximum health value for free chlorine.

Abbreviations: ADWG = Australian Drinking Water Guidelines; E. coli = Escherichia coli; mg/L = milligrams per litre; orgs/100 mL = organisms per 100 millilitres.

Table 2 Water Quality Aesthetic Characteristics for the Ryde Delivery System

Characteristic	Unit of measure	ADWG aesthetic value	No. of samples 1 Apr 2025 to 31 Mar 2026	Average result	Long-term performance measure (assessment over 12-month period)	Met long-term performance measure
iron	mg/L	0.3	120	0.008	Average of test results less than respective ADWG aesthetic value	Yes
aluminium	mg/L	0.2	28	0.016		Yes
manganese	mg/L	0.05	120	0.0020		Yes
copper	mg/L	1	37	0.036		Yes
zinc	mg/L	3	28	0.008		Yes
ammonia as NH_3	mg/L	0.50	28	0.162		Yes
turbidity	NTU	5	1191	0.13		Yes
true colour[1]	HU	15	28	3		Yes
dissolved oxygen	% saturation	greater than 85%	28	110.3		Yes
total dissolved solids	mg/L	600	7	129.7		Yes
sulfate	mg/L	250	7	9.5		Yes
hardness (total)	mg/L	200	28	54.5		Yes
flavour	rating[2]	acceptable	1	2	Average rating of 1, 2 or 3	Yes
odour	rating[2]	acceptable	1	2		Yes
pH	pH units	between 6.5 - 8.5	1191	7.8	Average results between 6.5 - 8.5 pH units	Yes
temperature	degrees C	no set value	1195	19.2	NA	NA

[1] True colour is measured at 400 nm wavelength.

[2] Rated by a panel on a scale from 1 to 5. Ratings of 1, 2 and 3 are generally acceptable to most people while ratings of 4 and 5 are generally not acceptable. NA = not applicable.

Abbreviations: ADWG = Australian Drinking Water Guidelines; HU = Hazen Units; mg/L = milligrams per litre; NTU = nephelometric turbidity units.

We also test for a range of other water characteristics at your tap over the course of the year. In Table 3 we've summarised the typical values for a range of characteristics for your area, noting that these values are intended to provide an approximate guide, and that all compliance-related values are provided in Table 1 and Table 2.

Table 3 Typical values for your area

Parameter	Range (10th – 90th Percentile) or Average	Units
Physical Characteristics		
true colour	<2 - 4	TCU or HU
turbidity	0.07 - 0.13	NTU
total dissolved solids	118.0 - 141.2	mg/L
pH	7.66 - 7.92	pH units
conductivity	20.0 - 21.2	mS/m
total hardness	47 - 60	mg $CaCO_3$ /L
calcium hardness	29 - 40	mg $CaCO_3$ /L
magnesium hardness	21 - 25	mg $CaCO_3$ /L
alkalinity	39.1 - 46.3	mg $CaCO_3$ /L
temperature	14.6 - 23.6	degrees C
dissolved oxygen	86 - 137	% saturation
Disinfectants		
free chlorine	0.13	mg/L
monochloramine	0.73	mg/L
Disinfection by-products		
trihalomethanes	0.080	mg/L
Inorganic chemicals		
aluminium	0.010 - 0.018	mg/L
ammonia (as NH_3)	<0.001 - 0.330	mg/L
arsenic	<0.0002	mg/L
cadmium	<0.0001	mg/L
antimony	<0.0003	mg/L
calcium	11.5 - 14.7	mg/L
chloride	27.4 - 34.9	mg/L
chromium	<0.0002	mg/L
copper	0.0103 - 0.0559	mg/L
cyanide	<0.005	mg/L
fluoride	0.97	mg/L
iron	<0.005 - 0.016	mg/L
lead	0.0002 - 0.0007	mg/L
nickel	0.0005 - 0.0007	mg/L
magnesium	4.52 - 5.78	mg/L
manganese	0.0009 - 0.0033	mg/L
mercury	<0.00001	mg/L

Parameter	Range (10th – 90th Percentile) or Average	Units
nitrate (as NO_3)	0.23 - 0.43	mg/L
nitrite (as NO_2)	0.003 - 0.138	mg/L
phosphorus	0.002 - 0.004	mg/L
potassium	1.83 - 2.16	mg/L
reactive silica (as SiO_2)	3.3 - 5.2	mg/L
selenium	<0.0002	mg/L
silver	<0.0001	mg/L
sodium	12.8 - 15.3	mg/L

At the treatment plant

The water at your tap is treated at our **Prospect Water Filtration Plant**.

We monitor the quality of the untreated (raw) water entering our filtration plants to understand how much treatment is needed and to verify the quality of treated water leaving the plant for a range of water quality characteristics.

Parameter	Range (10th – 90th Percentile) or Average	Units
sulfate	9.30 - 9.82	mg/L
zinc	0.002 - 0.012	mg/L
Organic compounds		
chlorinated, polynuclear aromatic, aromatic hydrocarbons	not detected	
chlorophenols	not detected	
pesticides	not detected	

Results for key water quality characteristics which we test are presented here for the **Prospect Water Filtration Plant**.

Table 4 Treated water quality characteristics at Prospect Water Filtration Plant – quarterly results

Quarter - 1 Jan 2026 to 31 Mar 2026							
Characteristics	**Unit of measure**	**ADWG value**	**No. of samples**	**Min**	**Ave**	**Max**	**% of tests meeting the guideline[3]**
E. coli	orgs/100 mL	not detected in 100 mL	13	<1	<1	<1	100%
turbidity	NTU	5	13	0.09	0.12	0.14	100%
true colour[1]	HU	15	13	<2	<2	3	100%
pH	pH units	between 6.5 - 8.5	13	7.5	7.8	7.9	100%
free chlorine[4]	mg/L	5	26	<0.04	<0.04	<0.04	100%
monochloramine	mg/L	3	26	1.70	1.79	1.94	100%
fluoride[2]	mg/L	1.5	13	0.85	0.94	1.00	92.31%[5]
total trihalomethanes	mg/L	0.25	16	0.05	0.07	0.09	100%
n-nitrosodimethylamine	mg/L	0.0001	1	<0.000001	<0.000001	<0.000001	100%
perfluorooctanoic acid (PFOA)	µg/L	0.2	3	0.0003	0.0004	0.0004	100%
perfluorooctane sulfonate (PFOS)	µg/L	0.008	3	0.0008	0.0009	0.0009	100%
perfluorohexane sulfonate (PFHxS)	µg/L	0.03	3	<0.0001	0.0006	0.0010	100%
perfluorobutane sulfonate (PFBS)	µg/L	1	3	<0.0005	<0.0005	<0.0005	100%
iron	mg/L	0.3	13	<0.005	<0.005	0.017	100%
aluminium	mg/L	0.2	13	0.009	0.012	0.020	100%

Quarter - 1 Jan 2026 to 31 Mar 2026							
manganese	mg/L	0.05	13	<0.001	0.002	0.003	100%

[1] True colour is measured at 400 nm wavelength.

[2] The ADWG specifies a guideline value for fluoride of <1.5 mg/L. The NSW Code of Practice for Fluoridation of Public Water Supplies sets a target that each year >95% of all routine fluoride samples (both treated water from WFPs and customer taps) fall within the concentration range of 0.90 to 1.50 mg/L. The data in this table is the WFP data only.

[3] Water quality compliance is based on annual results and different criteria are applied to health-related targets and aesthetic targets as noted in Tables 1 and 2.

[4] 5 mg/L is the ADWG health value for total chlorine, there is no maximum health value for free chlorine.

[5] One sample collected at Prospect WFP for fluoride in Q3 2025-26 showed a result below the range of 0.90 to 1.50 mg/L.

Abbreviations: ADWG = Australian Drinking Water Guidelines; Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres.

Table 5 Treated water quality characteristics at Prospect Water Filtration Plant – annual results

Annual – 1 Apr 2025 to 31 Mar 2026								
Characteristics	**Unit of measure**	**ADWG value**	**No. of samples**	**Min**	**Ave**	**Max**	**% of tests meeting the guideline**	**Meets long-term performance measure**
E. coli	orgs/100 mL	not detected in 100 mL	52	<1	<1	<1	100%	Yes
turbidity	NTU	5	52	0.06	0.11	0.66	100%	Yes
true colour[1]	HU	15	52	<2	<2	3	100%	Yes
pH	pH units	between 6.5 - 8.5	52	7.5	7.8	8.1	100%	Yes
free chlorine[3]	mg/L	5	104	<0.04	<0.04	<0.04	100%	Yes
monochloramine	mg/L	3	104	1.38	1.74	1.94	100%	Yes
fluoride[2]	mg/L	1.5	52	0.85	0.97	1.05	98.08%	Yes[5]
total trihalomethanes	mg/L	0.25	64	0.04	0.08	0.12	100%	Yes
n-nitrosodimethylamine	mg/L	0.0001	4	<0.000001	<0.000010	<0.000010	100%	Yes
perfluorooctanoic acid (PFOA)[4]	µg/L	0.2	9	<0.0001	0.0003	0.0006	100%	Yes
perfluorooctane sulfonate (PFOS)[4]	µg/L	0.008	9	0.0008	0.0009	0.0011	100%	Yes
perfluorohexane sulfonate (PFHxS)[4]	µg/L	0.03	9	<0.0001	0.0008	0.0010	100%	Yes
perfluorobutane sulfonate (PFBS)[4]	µg/L	1	9	<0.0005	<0.0005	<0.0005	100%	Yes
iron	mg/L	0.3	52	<0.005	<0.005	0.031	100%	Yes

Annual – 1 Apr 2025 to 31 Mar 2026								
aluminium	mg/L	0.2	52	0.007	0.012	0.020	100%	Yes
manganese	mg/L	0.05	52	<0.001	0.004	0.030	100%	Yes

[1] True colour is measured at 400 nm wavelength.

[2] The ADWG specifies a guideline value for fluoride of <1.5 mg/L. The NSW Code of Practice for Fluoridation of Public Water Supplies sets a target that each year >95% of all routine fluoride samples (both treated water from WFPs and customer taps) fall within the concentration range of 0.90 to 1.50 mg/L. The data in this table is the WFP data only.

[3] 5 mg/L is the ADWG health value for total chlorine, there is no maximum health value for free chlorine.

[4] Data from 1 July 2025 to align with new ADWG limits for PFAS.

[5] During the 12-month period from 1 April 2025 to 31 March 2026, one sample collected at Prospect WFP for fluoride showed a result that was below the concentration range of 0.90 to 1.50 mg/L. Compliance was achieved as >95% of samples were within the required range over a 12-month period.

Abbreviations: ADWG = Australian Drinking Water Guidelines; Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres.

More detailed information on PFAS data can be found on the Sydney Water website PFAS monitoring results

Table 6 Untreated (raw) water quality characteristics at Prospect Water Filtration Plant

			Quarter – 1 Jan 2026 to 31 Mar 2026				Annual – 1 Apr 2025 to 31 Mar 2026			
Characteristics	**Unit of measure**	**Raw Water Supply Agreement[2]**	**No. of samples**	**Min**	**Ave**	**Max**	**No. of samples**	**Min**	**Ave**	**Max**
E. coli	orgs/100 mL	NA	13	<1	<1	3	52	<1	<1	7
Cryptosporidium	oocysts/10 L	NA	24	<1	<1	<1	96	<1	<1	<1
Giardia	cysts/10 L	NA	24	<1	<1	<1	96	<1	<1	<1
turbidity	NTU	40	13	1.16	1.78	2.30	52	1.16	2.93	7.93
true colour[1]	HU	60	13	7	9	12	52	7	11	14
pH	pH units	between 6.3 - 7.9	13	7.2	7.3	7.6	52	7.0	7.3	7.7
iron	mg/L	3.500	13	0.096	0.126	0.151	52	0.096	0.218	0.505
aluminium	mg/L	2.600	13	0.056	0.077	0.105	52	0.056	0.135	0.376
manganese	mg/L	1.400	13	0.009	0.014	0.018	52	0.009	0.027	0.154

[1] True colour is measured at 400 nm wavelength.

[2] The Raw Water Supply Agreement is an agreement between WaterNSW and Sydney Water about the water quality required for the routine operation of the water filtration plants. Water quality may vary outside these ranges during disturbances of the raw water for example after heavy rain in the catchments.

Abbreviations: Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NA = not applicable; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres.

What else do we test for?

We monitor for all the characteristics found in tables 7-11. If detected, results are below the *Australian Drinking Water Guidelines* value, wherever a guideline value exists.

A range of potential chemical contaminants (metals, organic chemicals and radionuclides) are monitored in the raw water at the inlet to each water filtration plant. A few are also monitored in the treated water at the plant outlet and at the customer tap. Risk assessments for these chemicals take into consideration the physical and chemical properties of the various compounds and usage within the catchment areas.

For most of these chemicals, intensive monitoring was initially carried out to establish if they were likely to be present in the supply. This historical data was used along with risk assessments to determine the range of potential contaminants and the frequency of analysis for the current monitoring program. Some chemicals are measured every five years, to verify they are still not present in the water.

Monitoring for additional chemicals may be done from time to time for investigative or other operational purposes but results are not shown here for one or more of the following reasons:

- because of the infrequency of monitoring
- the lack of direct influence on drinking water quality
- no guideline values exist to compare test results to in order to assess risk.

The following tables only show the ADWG health value, the analytical limit of detection, and the frequency of analysis for each chemical. Results are not shown because analysis is infrequent, and most of these chemicals are only rarely detected and at very low levels.

Table 7 Ryde Delivery System – other characteristics

Characteristic	Analyte name	ADWG health/aesthetic value (mg/L)	Detection limit (mg/L)	Monitoring frequency[1]	Most recent result complies with ADWG value
Inorganic chemicals	cyanogen chloride	0.08	0.004	2024-25, 2 samples per delivery system annually	Yes
	chloral hydrate	0.1	0.001	2022-23, 1 sample per delivery system annually	Yes
	hydrogen sulfide	0.05	0.002	2023-24, 2 samples per delivery system per month	Yes
Organic chemicals	benzo-(a)-pyrene (PAHs)	0.00001	0.00001	2021-22, 2 samples per delivery system annually	Yes

Characteristic	Analyte name	ADWG health/aesthetic value (mg/L)	Detection limit (mg/L)	Monitoring frequency[1]	Most recent result complies with ADWG value
	di(2-ethylhexly) phthalate (DEHP)	0.01	0.01	2022-23, 1 sample per delivery system annually	Yes
	toluene	0.8	0.0003	2023-24, 1 sample per delivery system annually	Yes
	acrylamide	0.0002	0.0002	2025-26, 2 samples per delivery system quarterly	Yes
	xylene	0.6	0.0004	2022-23, 1 sample per delivery system annually	Yes
Chloroacetic acids	chloroacetic acid	0.15	0.001	2023-24, 1 sample per delivery system annually	Yes
	dichloroacetic acid	0.1	0.001		Yes
	trichloroacetic acid	0.1	0.001		Yes
Chlorophenols	2-chlorophenol	0.3	0.0001	2023-24, 1 sample per delivery system annually	Yes
	2,4-dichlorophenol	0.2	0.0001		Yes
	2,4,6-trichlorophenol	0.02	0.0001		Yes

mg/L = milligrams per litre.

[1] Monitored on a five-yearly rotational basis – year indicates most recent test performed.

Table 8 Treated water at Prospect Water Filtration Plant – other characteristics

Characteristic	Analyte name	ADWG health/aesthetic value (mg/L)	Detection limit (mg/L)	Monitoring frequency – Prospect Water Filtration Plant	Most recent result complies with ADWG value
Inorganic chemicals	antimony	0.003	0.0003	NA[1]	Yes
	cadmium	0.002	0.0001	NA[1]	Yes
	copper	2	0.0005	NA[1]	Yes
	chromium (as Cr(VI))	0.05	0.0002	NA[1]	Yes
	cyanide	0.08	0.005	NA[1]	Yes
	lead	0.005	0.0001	NA[1]	Yes
	nickel	0.02	0.0002	NA[1]	Yes
	sulfate	500	0.10	NA[1]	Yes
	total dissolved solids	600	calculation	NA[1]	Yes
	chloride	250	0.10	5-yearly[3]	Yes
	sodium	180	0.05	5-yearly[3]	Yes
Organic chemicals	acrylamide	0.0002	0.0002	5-yearly[2]	Yes
	carbon tetrachloride	0.003	0.0003	5-yearly[3]	Yes

NA = not applicable; mg/L = milligrams per litre; ADWG = Australian Drinking Water Guidelines.

[1] Monitored monthly/quarterly in the customer supply systems rather than in the treated water from the WFP.

[2] Monitored on a 5-year rotational basis. In 2025-26 sampling quarterly from customer supply system.

[3] Monitored on a 5-year rotational basis. Last sampled in 2021-22, 1 sample for each WFP in each quarter.

Table 9 Untreated (raw) water at Prospect Water Filtration Plant – other characteristics

Characteristic	Analyte name	ADWG health value (mg/L)	Detection limit (mg/L)	Monitoring frequency – Prospect Water Filtration Plant	Most recent result complies with ADWG value
Inorganic chemicals	cadmium	0.002	0.0001	quarterly	Yes
	arsenic	0.01	0.001	quarterly	Yes
	barium	2	0.001	yearly	Yes
	boron	4	0.02	yearly	Yes
	iodide	0.5	0.01	yearly	Yes
	beryllium	0.06	0.001	yearly	Yes
	uranium	0.02	0.001	yearly	Yes
	mercury	0.001	0.0001	quarterly	Yes
	molybdenum	0.05	0.001	yearly	Yes
	selenium	0.004	0.001	quarterly	Yes
	silver	0.1	0.001	yearly	Yes
	tin	NA	0.001	yearly	NA
	fluoride	1.5	0.010	quarterly	Yes
	nitrate	50	0.002	quarterly	Yes
Organic chemicals	benzene	0.001	0.0001	quarterly[1]	Yes
	vinyl chloride	0.0003	0.0003	quarterly[1]	Yes

NA = not applicable; mg/L = milligrams per litre; ADWG = Australian Drinking Water Guidelines.

[1] Event trigger for organics if wet weather intrusion impacts on raw water supply.

Table 10 Untreated (raw) water – pesticides and herbicides

Characteristic	Analyte name	ADWG health value (mg/L)	Detection limit (mg/L)	Monitoring frequency – Prospect Water Filtration Plant[1]	Most recent result complies with ADWG value
Pesticides/ Herbicides	atrazine	0.02	0.000005	quarterly	Yes
	chlorfenvinphos	0.002	0.00002	quarterly	Yes
	flupropanate	0.009	0.002	quarterly	Yes
	MCPA (2-methyl-4-clorophenoxyacetic acid)	0.04	0.00001	quarterly	Yes
	picloram	0.3	0.00005	quarterly	Yes
	simazine	0.02	0.000005	quarterly	Yes
	chlorpyrifos	0.01	0.000005	quarterly	Yes
	2,4-D	0.03	0.00001	quarterly	Yes
	diuron	0.02	0.000005	quarterly	Yes
	glyphosate	1	0.001	quarterly	Yes
	hexazinone	0.4	0.000005	quarterly	Yes
	triclopyr	0.02	0.00001	quarterly	Yes

NA = not applicable; mg/L = milligrams per litre; ADWG = Australian Drinking Water Guidelines.

[1] Event trigger for pesticides if wet weather intrusion impacts on raw water supply.

Table 11 Untreated (raw) water– radionuclides

Characteristic	Analyte name	ADWG health value (Bq/L)	Detection limit (Bq/L)	Monitoring frequency – Prospect Water Filtration Plant	Most recent result complies with ADWG value
Radiological	gross alpha	NA[1]	0.05	every 3 years	Yes
	gross beta	NA[1]	0.10	every 3 years	Yes
	total radionuclides	0.5	0.02	every 3 years	Yes

NA = not applicable. ADWG = Australian Drinking Water Guidelines.

[1] The sum of gross alpha and gross beta (total radionuclides) should not exceed 0.5 Bq/L (becquerels per litre). If the screening test for gross alpha or gross beta activity was to trigger further analysis of radionuclides, the specific radionuclides would be identified and assessed in consultation with NSW Health. These would likely be radium-226 (limit of detection is 0.01 Bq/L) and radium-228 (limit of detection is 0.08 Bq/L) as this is recommended in the ADWG.

Water in the catchments

We report some information about water quality in WaterNSW's catchments. **Water in your area is sourced from Lake Burragorang at Warragamba Dam, Prospect Lake,** and the **Upper Canal** (which conveys water from Nepean and Avon Dams).

Information about untreated (raw) water in these catchments is provided below.

For more information about quantities of water in the catchment areas, please visit the WaterNSW website.

Table 12 Lake Burragorang, 500 metres upstream of the dam wall, quarterly results

			Quarterly Results – 1 Jan 2026 to 31 Mar 2026				
Characteristics		Unit of measure	WaterNSW Reference levels[2]	No. of samples	Min	Ave	Max
Microbiological	*E. coli*	orgs/100 mL	NA	60	<1	2	31
	Cryptosporidium[3]	oocysts/10 L	NA	0	NA	NA	NA
	Giardia[3]	cysts/10 L	NA	0	NA	NA	NA
Physical / chemical	turbidity	NTU	NA	546	0.23	1.58	4.93
	true colour[1]	HU	NA	60	7	11	14
	chlorophyll - *a*	µg/L	2-10	43	0.7	3.9	10.9
	iron	mg/L	<1	60	0.010	0.073	0.240
	aluminium	mg/L	<0.1	60	<0.010	0.037	0.160
	manganese	mg/L	0.5	60	<0.001	0.019	0.279

[1] True colour is measured at 400 nm wavelength.

[2] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000). These guidelines list water quality levels consistent with acceptable medium to long-term environmental water quality. Water quality may vary outside these ranges during disturbances of the raw water for example after heavy rain events in the catchments. During these occurrences, Sydney Water can treat the raw water and continued to provide safe drinking water that met all long-term health and aesthetic guidelines under the Australian Drinking Water Guidelines.

[3] Cryptosporidium & Giardia are monitored at irregular frequencies and in response to events.

Abbreviations: Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres; cysts/10 L = Giardia cysts per 10 litres; oocysts/10 L = Cryptosporidium oocysts per 10 litres; NA = not applicable.

Table 13 Lake Burragorang, 500 metres upstream of the dam wall, annual results

			Annual Results – 1 Apr 2025 to 31 Mar 2026				
Characteristics		Unit of measure	WaterNSW Reference levels[2]	No. of samples	Min	Ave	Max
Microbiological	*E. coli*	orgs/100 mL	NA	240	<1	1	31
	Cryptosporidium[3]	oocysts/10 L	NA	0	NA	NA	NA
	Giardia[3]	cysts/10 L	NA	0	NA	NA	NA
Physical / chemical	turbidity	NTU	NA	2287	0.08	3.81	63.10
	true colour[1]	HU	NA	240	7	14	28
	chlorophyll - *a*	µg/L	2-10	161	0.5	3.0	10.9
	iron	mg/L	<1	240	<0.010	0.151	0.880
	aluminium	mg/L	<0.1	240	<0.010	0.099	0.730
	manganese	mg/L	0.5	240	<0.001	0.029	0.522

[1] True colour is measured at 400 nm wavelength.

[2] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000). These guidelines list water quality levels consistent with acceptable medium to long-term environmental water quality. Water quality may vary outside these ranges during disturbances of the raw water for example after heavy rain events in the catchments. During these occurrences, Sydney Water can treat the raw water and continued to provide safe drinking water that met all long-term health and aesthetic guidelines under the Australian Drinking Water Guidelines.

[3] Cryptosporidium & Giardia are monitored at irregular frequencies and in response to events.

Abbreviations: Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres; cysts/10 L = Giardia cysts per 10 litres; oocysts/10 L = Cryptosporidium oocysts per 10 litres; NA = not applicable.

Table 14 Upper Canal, quarterly results

Characteristics		Unit of measure	WaterNSW Reference levels[2]	Quarterly Results – 1 Jan 2026 to 31 Mar 2026 No. of samples	Min	Ave	Max
Microbiological	*E. coli*	orgs/100 mL	NA	6	26	77	160
	Cryptosporidium[3]	oocysts/10 L	NA	0	NA	NA	NA
	Giardia[3]	cysts/10 L	NA	0	NA	NA	NA
Physical / chemical	turbidity	NTU	NA	6	1.18	2.59	6.94
	true colour[1]	HU	NA	6	10	13	16
	chlorophyll - *a*	µg/L	NA	6	0.8	1.7	2.6
	iron	mg/L	<1	6	0.350	0.513	0.750
	aluminium	mg/L	<0.1	6	0.100	0.152	0.300
	manganese	mg/L	NA	6	0.009	0.016	0.033

[1] True colour is measured at 400 nm wavelength.

[2] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000). These guidelines list water quality levels consistent with acceptable medium to long-term environmental water quality. Water quality may vary outside these ranges during disturbances of the raw water for example after heavy rain in the catchments. During these occurrences, Sydney Water can treat the raw water and continued to provide safe drinking water that met all long-term health and aesthetic guidelines under the Australian Drinking Water Guidelines.

[3] Cryptosporidium & Giardia are monitored at irregular frequencies and in response to events.

Abbreviations: Ave = average value; E. coli = Escherichia coli; HU = Hazen units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres; cysts/10 L = Giardia cysts per 10 litres; oocysts/10 L = Cryptosporidium oocysts per 10 litres; NA = not applicable.

Table 15 Upper Canal, annual results

Characteristics		Unit of measure	WaterNSW Reference levels[2]	Annual Results – 1 Apr 2025 to 31 Mar 2026 No. of samples	Min	Ave	Max
Microbiological	*E. coli*	orgs/100 mL	NA	17	<1	51	160
	Cryptosporidium[3]	oocysts/10 L	NA	1	1	1	1
	Giardia[3]	cysts/10 L	NA	1	<1	<1	<1
Physical / chemical	turbidity	NTU	NA	17	0.94	2.63	6.94
	true colour[1]	HU	NA	17	10	15	25
	chlorophyll - *a*	µg/L	NA	16	0.4	1.3	2.6
	iron	mg/L	<1	16	0.310	0.502	0.950
	aluminium	mg/L	<0.1	16	0.050	0.162	0.390
	manganese	mg/L	NA	17	0.007	0.017	0.036

[1] True colour is measured at 400 nm wavelength.

[2] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000). These guidelines list water quality levels consistent with acceptable medium to long-term environmental water quality. Water quality may vary outside these ranges during disturbances of the raw water for example after heavy rain in the catchments. During these occurrences, Sydney Water can treat the raw water and continued to provide safe drinking water that met all long-term health and aesthetic guidelines under the Australian Drinking Water Guidelines.

[3] Cryptosporidium & Giardia are monitored at irregular frequencies and in response to events.

Abbreviations: Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres; cysts/10 L = Giardia cysts per 10 litres; oocysts/10 L = Cryptosporidium oocysts per 10 litres, NA = not applicable.

Table 16 Prospect Reservoir/Prospect Lake, quarterly results

			Quarterly Results – 1 Jan 2026 to 31 Mar 2026				
Characteristics		Unit of measure	WaterNSW Reference levels[2]	No. of samples	Min	Ave	Max
Microbiological	*E. coli*	orgs/100 mL	NA	4	3	29	90
	Cryptosporidium[3]	oocysts/10 L	NA	2	<1	<1	<1
	Giardia[3]	cysts/10 L	NA	2	<1	<1	<1
Physical / chemical	turbidity	NTU	NA	200	1.56	2.65	6.82
	true colour[1]	HU	NA	4	4	4	5
	chlorophyll - *a*	µg/L	2-10	6	5.3	7.0	8.1
	iron	mg/L	<1	4	0.050	0.075	0.090
	aluminium	mg/L	<0.1	4	0.030	0.075	0.160
	manganese	mg/L	0.5	4	<0.001	0.016	0.026

[1] True colour is measured at 400 nm wavelength.

[2] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000). These guidelines list water quality levels consistent with acceptable medium to long-term environmental water quality. Water quality may vary outside these ranges during disturbances of the raw water for example after heavy rain in the catchments. During these occurrences, Sydney Water can treat the raw water and continued to provide safe drinking water that met all long-term health and aesthetic guidelines under the Australian Drinking Water Guidelines.

[3] Cryptosporidium & Giardia are monitored at irregular frequencies and in response to events.

Abbreviations: Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres; cysts/10 L = Giardia cysts per 10 litres; oocysts/10 L = Cryptosporidium oocysts per 10 litres; NA = not applicable.

Table 17 Prospect Reservoir/Prospect Lake, annual results

		Annual Results – 1 Apr 2025 to 31 Mar 2026					
Characteristics		Unit of measure	WaterNSW Reference levels[2]	No. of samples	Min	Ave	Max
Microbiological	*E. coli*	orgs/100 mL	NA	13	<1	10	90
	Cryptosporidium[3]	oocysts/10 L	NA	5	<1	<1	<1
	Giardia[3]	cysts/10 L	NA	4	<1	<1	<1
Physical / chemical	turbidity	NTU	NA	628	1.07	2.56	11.68
	true colour[1]	HU	NA	13	4	5	7
	chlorophyll - *a*	µg/L	2-10	17	1.6	4.4	8.1
	iron	mg/L	<1	12	0.050	0.120	0.200
	aluminium	mg/L	<0.1	12	0.030	0.103	0.170
	manganese	mg/L	0.5	13	<0.001	0.015	0.038

[1] True colour is measured at 400 nm wavelength.

[2] Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000). These guidelines list water quality levels consistent with acceptable medium to long-term environmental water quality. Water quality may vary outside these ranges during disturbances of the raw water for example after heavy rain in the catchments. During these occurrences, Sydney Water can treat the raw water and continued to provide safe drinking water that met all long-term health and aesthetic guidelines under the Australian Drinking Water Guidelines.

[3] Cryptosporidium & Giardia are monitored at irregular frequencies and in response to events.

Abbreviations: Ave = average value; E. coli = Escherichia coli; HU = Hazen Units; Max = maximum value; mg/L = milligrams per litre; Min = minimum value; NTU = nephelometric turbidity units; orgs/100 mL = organisms per 100 millilitres; cysts/10 L = Giardia cysts per 10 litres; oocysts/10 L = Cryptosporidium oocysts per 10 litres; NA = not applicable.

Review of drinking water literature

Every quarter, we review a topic from the latest water quality research from around the world.

Understanding and managing risks from climate change: Impacts on water quality

What is Sydney Water doing to manage risks from climate change?

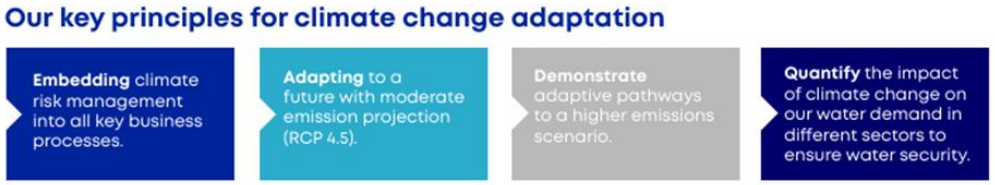
Sydney Water and WaterNSW work together to manage the Greater Sydney water supply. WaterNSW manage the catchments and dams and deliver water to Sydney Water who then treat it and distribute drinking water. We use a Catchment to Customer (C2C) risk review process to jointly assess and manage risk from catchment, through raw water sources (dams), water treatment, and network delivery to Sydney Water's customers' taps.

C2C risk reviews have provided a comprehensive review of risks including strategic and emerging threats to Sydney's drinking water supplies since 1998. They have been used to inform supply planning, monitoring programs, research and risk mitigation actions. The impact of climate change is recognised as a key strategic issue for Sydney Water. In addition, our Operating Licence 2024-2028 introduced new requirements to:

- Conduct operations in a manner that considers the impacts of climate change
- Engage in an on-going climate risk assessment and management process that:
  - Is consistent with the NSW Government's *Climate Risk Ready NSW Guide*
  - Considers the NSW Government's *Climate Change Adaptation Strategy*.

Sydney Water co-led the development of the first Climate Change Adaptation Guidelines for water utilities in Australia and New Zealand. These were an initiative of the Water Services Association of Australia (WSAA). A total of 17 water utility partners collaborated to develop a systematic, consistent and coordinated approach to climate adaptation.

Sydney Water's position on climate change adaptation is summarised in our climate change adaptation fact sheet. It requires our employees to work towards a future that explores different levels of emissions ranging from high to low. The standard we use is for a future with medium emissions.



Climate change and drinking water

- More severe droughts will lead to lower dam levels and reduced availability of water. At lower dam levels, we have less opportunity to avoid poor raw water quality when sourcing our water from the dams.
- Bushfires and algal blooms in rivers and dams could impact our ability to filter and treat raw water.
- Floods, storms and bushfires could damage or even overwhelm our infrastructure.

- Floods and storms also contribute to poor raw water quality in dams, making it harder to treat.
- Higher sea levels may threaten assets near the coast such as pipes, reservoirs, pumping stations.
- Prolonged heatwaves could increase water demand, putting pressure on our water filtration plants to produce enough water.

Many of these are climate risks we already face, but we must be prepared to face any changes in frequency or magnitude of these events.

Increasing our understanding of climate change impacts on water quality for our system

As part of our Catchment to Customer (C2C) risk assessment process, in June 2025 we ran a workshop to translate anticipated climate change impacts into water quality outcomes. The five scenarios considered included:

- Extreme wet (rainfall)
- Severe weather (wind, hail, lightning)
- Increased water temperature
- Drought
- Bushfires

These scenarios were prioritised as existing risks that are likely to evolve because of climate change.

Climate hazard data were considered for two climate change emission projections (IPCC, 2021), at two-time horizons, for each scenario:

- Medium emissions scenario (shared socioeconomic pathway (SSP) 2-4.5): strong mitigation, emissions stabilise at half today's levels by 2080. More likely than not to exceed 2°C increase in temperature. In line with our Climate Change Adaptation guidance, we must plan to this outcome
- High emissions scenario (SSP5-8.5): No climate mitigation policy, emissions continue rising at current rates. As likely as not to exceed 4°C increase in temperature. We should consider adaptation pathways to this outcome.

A variety of climate metrics were considered relevant to each scenario (Table 1). Data specific to Greater Sydney Area were sourced for each metric from 3rd generation of NSW and Australian Regional Climate Modelling (NARCliM) projections (2024; NARCliM1.5) via Adapt NSW interactive climate change projections map and the Cross Dependency Initiative (XDI) tool or derived from literature (e.g. CSIRO (2015)).

Direct and indirect impacts of each scenario on water quality hazards (e.g. dirty/turbid water, pathogen concentrations, algal blooms, metals and other contaminants) and our existing controls' anticipated effectiveness were evaluated and linked to a change in risk.

Actions to address knowledge gaps, improve our understanding, and improve organisational climate change preparedness were identified.

Table 18. Climate risks considered most relevant to water quality, climate metrics, and current understanding of likely change in risk

Climate risk	Climate metric	Change in risk	Scenario uncertainty	Control effectiveness in the future
Extreme rainfall	- Average rainfall - Maximum daily rainfall - Extreme rain frequency (days with >20 mm rain) (Note a key action is to update this last metric with a higher rainfall value for future work)	Increase	Confident	Partially effective
Severe weather	- Number of East Coast Low events - Mean wind speed - Extreme wind speed - Hailstorms	Same	Uncertain	Partially effective
Increased water temperature	- Average air temperature - Average maximum air temperature - Average annual hot days over 35°C - Average annual hot days over 35°C - Average number of cold nights below 2°C We discussed how these would translate into a change in water temperature.	Increase	Uncertain	Partially effective
Droughts	- Rainfall decline - Longest dry spell - Water stress	Confident	Confident	Partially effective
Bushfires	- Very high fire weather days - Average daily Forest Fire Danger Index	Confident	Confident	Effective

Where to now?

- The workshop approach was effective to agree on an initial assessment of climate change vulnerabilities, where detailed information was not yet available.
- We generated a gap assessment with tangible actions to improve the climate metrics used, determine the likely occurrence of scenarios, reduce uncertainty, and translate climate metrics into water quality outcomes. We are working towards narrowing these gaps.
- More work is needed to fully embed climate change risks into our C2C process. Changes in risk, uncertainty, and control effectiveness will be reassessed when further data is available.
- Additional events (like heatwaves) and intersection of events (e.g. heavy rainfall after bushfire) will need to be considered. Co-occurring events, or events in quick succession with minimal time to recover between them have been highlighted as important for water quality.
- We will continue to plan how to meet these water quality challenges.

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Contact us

If you have any questions or concerns about the information in this report, contact us on our website. For issues about water quality, call 13 20 90, available 24/7.

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