



Metro Water District Consumer Confidence Report for Calendar Year 2021

Este informe contiene información muy importante sobre el agua usted bebe.
Tradúscalo ó hable con alguien que lo entienda bien.

Public Water System ID Number		Public Water System Name	
AZ04-10-076		METROPOLITAN DWID – MAIN	
Contact Name and Title		Phone Number	E-mail Address
Steve Shepard, Utility Superintendent		(520)575-8100	sshepard@metrowater.com
We want our valued customers to be informed about their water quality. If you would like to attend any of our regularly scheduled meetings, please visit https://metrowater.com/public-meetings . Metro Water District’s Board of Directors meets regularly, usually on the second Monday of the month, at 6:00 p.m. at Metro Water District’s Office located at 6265 N. La Cañada Drive, Tucson, Arizona 85704.			

Drinking Water Sources

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. The District’s water is from the Tucson Basin. The water in our aquifer was created primarily from mountain runoff and storm water infiltrating beneath the ground. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source(s):	Groundwater (Wells)
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Consecutive Connection Sources

A public water system that receives some or all of its finished water from one or more wholesale systems by means of a direct connection or through the distribution system of one or more consecutive systems. Systems that purchase water from another system report regulated contaminants detected from the source water supply in a separate table.

PWS # AZ04-10-112, City of Tucson provides us a consecutive connection source of water. The City of Tucson’s 2021 CCR Report may be viewed at <https://www.tucsonaz.gov/water>.

Drinking Water Contaminants

Microbial Contaminants: Such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants: Such as salts and metals that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides: Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources.

Organic Chemical Contaminants: Such as synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

Radioactive Contaminants: That can be naturally occurring or be the result of oil and gas production and mining activities.

Vulnerable Population

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

Source Water Assessment

The Arizona Department of Environmental Quality (ADEQ) completed a Source Water Assessment for the drinking water in the Metro Main Service Area in April 2003. Based on the information currently available on the hydrogeologic settings and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the ADEQ has given a high-risk designation for the degree to which this public water system drinking water source(s) are protected. A designation of high risk indicates there may be additional source water protection measures which can be implemented on the local level. This does not imply that the source water is contaminated, nor does it mean that contamination is imminent. Rather, it simply states that land use activities or hydrogeologic conditions exist that make the source water susceptible to possible future contamination. Further source water assessment documentation can be obtained by contacting ADEQ.

Definitions

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water

Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria was present

Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria was present

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health

Maximum Residual Disinfectant Level (MRDL): The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur

Minimum Reporting Limit (MRL): The smallest measured concentration of a substance that can be reliably measured by a given analytical method

Millirems per year (MREM): A measure of radiation absorbed by the body

Not Applicable (NA): Sampling was not completed by regulation or was not required

Not Detected (ND or <): Not detectable at reporting limit

Nephelometric Turbidity Units (NTU): A measure of water clarity

Million fibers per liter (MFL)

Picocuries per liter (pCi/L): Measure of the radioactivity in water

ppm: Parts per million or Milligrams per liter (mg/L)

ppb: Parts per billion or Micrograms per liter (µg/L)

ppt: Parts per trillion or Nanograms per liter (ng/L) ppm x 1000 = ppb

ppq: Parts per quadrillion or Picograms per liter (pg/L) ppb x 1000 = ppt
ppt x 1000 = ppq

Lead Informational Statement:

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Metro Water District is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

Water Quality Data – Regulated Contaminants

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG	Likely Source of Contamination	
E. Coli	N	0	NA	0	0	Human and animal fecal waste	
Fecal Indicator (coliphage, enterococci and/or E. coli)	N	0	NA	0	0	Human and animal fecal waste	
Disinfectants	MCL Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine/Chloramine (ppm)	N	0.58	0.50 to 0.64	4	4	2021	Water additive used to control microbes
Disinfection By-Products	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	N	<2.0	<2.0	60	N/A	2021	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N	6	<0.5 to 6	80	N/A	2021	Byproduct of drinking water disinfection
Lead & Copper	MCL Violation Y or N	90 th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.12	0	1.3	1.3	2019	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	1.3	0	15	0	2019	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Alpha Emitters (pCi/L)	N	1.5	0.3 to 1.5	15	0	2019	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	0.8	<0.7 to 0.8	5	0	2019	Erosion of natural deposits
Uranium (ug/L)	N	1.7	0.9 to 1.7	30	0	2019	Erosion of natural deposits
Inorganic Chemicals (IOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Antimony (ppb)	N	<0.5	<0.5	6	6	2021	Discharge from petroleum refineries; fire retardants; ceramics, electronics, and solder
Arsenic ¹ (ppb)	N	3.0	0.59 to 3.0	10	0	2021	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N	<0.2	<0.2	7	7	2019	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppb)	N	140	<50 to 140	2000	2000	2021	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits

Inorganic Chemicals (IOC) Con't.	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Beryllium (ppb)	N	<2.0	<2.0	4	4	2021	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N	<2.0	<2.0	5	5	2021	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N	<30	<30	100	100	2021	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	<100	<100	200	200	2021	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N	0.37	<0.29 to 0.37	4	4	2021	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	N	<1.0	<1.0	2	2	2021	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nitrate ² (ppm)	N	5.10	0.87 to 5.10	10	10	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	N	<0.10	<0.10	1	1	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	N	<2.5	<2.5	50	50	2021	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	N	40	11 to 40	N/A	N/A	2021	Erosion of natural deposits
Thallium (ppb)	N	<0.5	<0.5	2	0.5	2021	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

¹ **Arsenic** is a mineral known to cause cancer in humans at high concentration and is linked to other health effects, such as skin damage and circulatory problems. If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water and continues to research the health effects of low levels of arsenic.

² **Nitrate** in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause "blue baby syndrome." Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

Synthetic Organic Chemicals (SOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
2,4-D (ppb)	N	<0.1	<0.1	70	70	2021	Runoff from herbicide used on row crops
2,4,5-TP (a.k.a. Silvex) (ppb)	N	<0.2	<0.2	50	50	2021	Residue of banned herbicide
Alachlor (ppb)	N	<0.1	<0.1	2	0	2021	Runoff from herbicide used on row crops
Atrazine (ppb)	N	<0.05	<0.05	3	3	2021	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)	N	<0.02	<0.02	200	0	2021	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	N	<0.5	<0.5	40	40	2021	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	N	<0.1	<0.1	2	0	2021	Residue of banned termiticide
Dalapon (ppb)	N	<1.0	<1.0	200	200	2021	Runoff from herbicide used on rights of way

Synthetic Organic Chemicals (SOC) Con't.	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Di (2-ethylhexyl) adipate (ppb)	N	<0.6	<0.6	400	400	2021	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	N	1.1	<0.6 to 1.1	6	0	2021	Discharge from rubber and chemical factories
Dibromochloropropane (ppt)	N	<0.01	<0.01	200	0	2021	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	N	<0.2	<0.2	7	7	2021	Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)	N	<0.4	<0.4	20	20	2021	Runoff from herbicide use
Dioxin [a.k.a. 2,3,7,8-TCDD] (ppq)	N	<0.5	<0.5	30	0	2021	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall (ppb)	N	<5.0	<5.0	100	100	2021	Runoff from herbicide use
Endrin (ppb)	N	<0.01	<0.01	2	2	2021	Residue of banned insecticide
Ethylene dibromide (ppt)	N	<0.01	<0.01	50	0	2021	Discharge from petroleum refineries
Glyphosate (ppb)	N	<6.0	<6.0	700	700	2021	Runoff from herbicide use
Heptachlor (ppt)	N	<0.01	<0.01	400	0	2021	Residue of banned termiticide
Heptachlor epoxide (ppt)	N	<0.01	<0.01	200	0	2021	Breakdown of heptachlor
Hexachlorobenzene (ppb)	N	<0.05	<0.05	1	0	2021	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)	N	<0.05	<0.05	50	50	2021	Discharge from chemical factories
Lindane (ppt)	N	<0.01	<0.01	200	200	2021	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	N	<0.05	<0.05	40	40	2021	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa
Oxamyl (a.k.a. Vydate) (ppb)	N	<0.5	<0.5	200	200	2021	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)	N	<0.1	<0.1	500	0	2021	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppt)	N	<0.04	<0.04	1	0	2021	Discharge from wood preserving factories
Picloram (ppb)	N	<0.1	<0.1	500	500	2021	Herbicide runoff
Simazine (ppb)	N	<0.05	<0.05	4	4	2021	Herbicide runoff
Toxaphene (ppb)	N	<0.5	<0.5	3	0	2021	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Chemicals (VOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Benzene (ppb)	N	<0.5	<0.5	5	0	2021	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	N	<0.5	<0.5	5	0	2021	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	N	<0.5	<0.5	100	100	2021	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	N	<0.5	<0.5	600	600	2021	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	N	<0.5	<0.5	75	75	2021	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	N	<0.5	<0.5	5	0	2021	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	N	<0.5	<0.5	7	7	2021	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	N	0.57 (Running Annual Average)	<0.5 to 1.0	70	70	2021	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	N	<0.5	<0.5	100	100	2021	Discharge from industrial chemical factories

Volatile Organic Chemicals (VOC) Cont.	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Dichloromethane (ppb)	N	<0.5	<0.5	5	0	2021	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	N	<0.5	<0.5	5	0	2021	Discharge from industrial chemical factories
Ethylbenzene (ppb)	N	0.17 (Running Annual Average)	<0.5 to 0.67	700	700	2021	Discharge from petroleum refineries
Styrene (ppb)	N	<0.5	<0.5	100	100	2021	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N	<0.5	<0.5	5	0	2021	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	N	<0.5	<0.5	70	70	2021	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	N	<0.5	<0.5	200	200	2021	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	N	<0.5	<0.5	5	3	2021	Discharge from industrial chemical factories
Trichloroethylene (ppb)	N	<0.5	<0.5	5	0	2021	Discharge from metal degreasing sites and other factories
Toluene (ppm)	N	<0.5	<0.5	1	1	2021	Discharge from petroleum factories
Vinyl Chloride (ppb)	N	<0.5	<0.5	2	0	2021	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	N	0.001 (Running Annual Average)	<0.0015 to 0.005	10	10	2021	Discharge from petroleum or chemical factories

Water Quality Table – Unregulated Contaminant Monitoring Rule and Elective Samples from 2021

Metals	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Manganese (ppb)	Y	4.0	<0.25 to 7.5	400	Naturally occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries, and fireworks; drinking water and wastewater treatment chemical; essential nutrient
Hexavalent Chromium (ppb)	Y	0.27	0.12 to 0.70	0.02	Naturally occurring element; used in steel alloys; used for plating, dyes, and wood preservation
Pesticides	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Alpha-hexachlorocyclohexane (ppt)	N	<0.010	<0.010	10	Component of benzene hexachloride (BHC); formerly used as an insecticide
Chlorpyrifos (ppt)	N	<0.030	<0.030	30	Organophosphate; used as an insecticide, acaricide and miticide
Dimethipin (ppt)	N	<0.20	<0.20	200	Used as an herbicide and plant growth regulator
Ethoprop (ppt)	N	<0.030	<0.030	30	Used as an insecticide
Oxyfluorfen (ppt)	N	<0.050	<0.050	50	Used as an herbicide
Profenofos (ppt)	N	<0.30	<0.30	300	Used as an insecticide and acaricide
Tebuconazole (ppt)	N	<0.20	<0.20	200	Used as a fungicide
Total permethrin (cis- & trans-) (ppt)	N	<0.040	<0.040	40	Used as an insecticide
Pesticides Manufacturing By-Product	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Tribufos (ppt)	N	<0.070	<0.070	700	Used as an insecticide and cotton defoliant Water additive used to control microbes

Violation Summary (for Reporting Requirement)

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
Reporting Violation	Late Reporting of the Third Quarter 2021 Monitoring Residual Disinfection Levels (MRDLs) to ADEQ within the ten-day time period allotted after the end of the quarter. The samples were collected on-time, but the report was turned in late. There were no water quality impacts, the violation was a paperwork process issue.	Reported on November 15, 2021, 36 days late.	There were no adverse health effects due to this late reporting for the MRDLs, and the System did not serve any contaminated water. The MRDLs were sent in as soon as the error was noticed. The ADEQ returned the System to compliance on November 15, 2021.
Reporting Violation	Late Reporting of the Fourth Quarter 2021 Di(2-ethylhexyl) phthalate sample from EPDS No. 027 to ADEQ within the ten-day time period allotted after the end of the quarter. The samples were collected on-time, but the report was turned in late as it was not received from the Laboratory until January 19, 2022. There were no water quality impacts.	Reported on January 19, 2021, nine days late.	There were no adverse health effects due to this late reporting for the Di(2-ethylhexyl)phthalate. The System did not serve any contaminated water, and the ADEQ returned the System to compliance on January 19, 2022.

Please share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.