Metro Water District Main System Consumer Confidence Report for Calendar Year 2022

Este informe contiene informactión muy importante sobre el aqua 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 pickup 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)

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)

ppq: Parts per quadrillion or Picograms per liter (pg/L)

ppm x 1000 = ppb

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	2022	0	0	Human and animal fecal waste	
Fecal Indicator (coliphage, enterococci and/or E. coli)	N	0	2022	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	0.61	0.20 to 2.50	4	4	2022	Water additive used to control microbes

Disinfection By-Products	MCL Violation Y or N	Running Annual Average (LRAA) OR Locational Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Total Trihalomethanes (TTHM) (ppb)	N	6.8	<0.5 to 6.8	80	N/A	2022	Byproduct of drinking water disinfection

Lead & Copper	MCL Violation Y or N	90th 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	2022	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	0.86	0	15	0	2022	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	5.4	<0.7 to 5.4	15	0	2022	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	1.9	<0.6 to 1.9	5	0	2022	Erosion of natural deposits
Uranium (ug/L)	N	5.1	<0.8 to 5.1	30	0	2022	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
Arsenic[1] (ppb)	N	3.4	0.7 to 3.4	10	0	2022	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppb)	N	140	<50 to 140	2000	2000	2022	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	N	0.37	<0.29 to 0.37	4	4	2022	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate[2] (ppm)	N	4.8	0.51 to 4.8	10	10	2022	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	40	11 to 40	N/A	N/A	2022	Erosion of natural deposits

[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
Di (2-ethylhexyl) phthalate (ppb)	N	1.1	<0.58 to 1.1	6	0	2022	Discharge from rubber and chemical factories

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
cis-1,2-Dichloroethylene (ppb)	N	1.4	<0.5 to 1.4	70	70	2022	Discharge from industrial chemical factories
Xylenes (ppm)	N	0.0033	<0.0015 to 0.0033	10	10	2022	Discharge from petroleum or chemical factories

Water Quality Table – Elective Samples from 2022

Inorganic Chemicals and Metals	Detected (Y/N)	Maximum Level Detected	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Hexavalent Chromium (ppb)	Y	0.30	<0.07 to 0.30	0.3	Naturally occurring element; used in steel alloys; used for plating, dyes, and wood preservation

Volatile Organic Chemicals (VOCs)	Detected (Y/N)	Maximum Level Detected	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Dichlorodifluoromethane (ppb)	Y	3.8	<0.5 to 3.8	0.50	Discharge from petroleum and industrial chemical sources.
1,4-Dioxane (ppb)	Y	0.3	<0.07 to 0.3	0.07	Solvent and used in paper, cotton and textiles processing.

PFAS	Detected (Y/N)	Maximum Level Detected	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA\GenX) (ppb)	N	<0.0020	<0.0020	0.002	Emulsifier or surfactant used to make coatings, cleaners, paint and other textiles.
N-ethylperfluorooctanesulfon-amidoacetic acid (NEtFOSAA (ppb)	N	<0.0020	<0.0020	0.002	Emulsifier or surfactant used to make coatings, cleaners, paint and other textiles.
N-methylperfluorooctanesulfon-amidoacetic Acid (N-MeFOSAA) (ppb)	N	<0.0020	<0.0020	0.002	Emulsifier or surfactant used to make coatings, cleaners, paint and other textiles.
Perflurobutanesulfonic Acid (PFBS) (ppb)	Y	0.0039	<0.0020 to 0.0039	0.002	Synthetic chemical used in products to make them stain, grease, heat and water resistant.
Perfluorodecanoic Acid (PFDA) (ppb)	N	<0.0020	<0.0020	0.002	Synthetic chemical used in products to make them stain, grease, heat and water resistant.
Perfluorododecanoic Acid (PFdDA) (ppb)	N	<0.0020	<0.0020	0.002	Synthetic chemical used in products to make them stain, grease, heat and water resistant.
Perfluorohexanesulfonic Acid (PFHxS) (ppb)	Y	0.0047	<0.0020 to 0.0047	0.002	Synthetic chemical used in products to make them stain, grease, heat and water resistant.
Perfluorohexanoic Acid (PFHA (ppb)	N	<0.0020	<0.0020	0.002	Emulsifier or surfactant used to make coatings, cleaners, paint and other textiles.
Perfluorooctanesulfonic Acid (PFOS) (ppb)	Y	0.0037	<0.0020 to 0.0037	0.002	Synthetic chemical used in products to make them stain, grease, heat and water resistant.
Perfluorooctanoic Acid (PFOA) (ppb)	N	<0.0020	<0.0020	0.002	Emulsifier or surfactant used to make coatings, cleaners, paint and other textiles.
Perflurorotridecanoic Acid (PFtDA) (ppb)	N	<0.0020	<0.0020	0.002	Emulsifier or surfactant used to make coatings, cleaners, paint and other textiles.

Violation Summary (for Reporting Requirement)

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
None	N/A	N/A	N/A

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.

The Metro Main service area also receives water from Tucson Water. There is an interconnect between the Metro and Tucson Water systems that allows Metro to continue to deliver water during periods of maintenance or repair.

PWS # AZ04-10-112, City of Tucson provides us a consecutive connection source of water. The City of Tucson's 2022 CCR Report may be viewed at https://www.tucsonaz.gov/water.

Water Quality Data – Regulated Contaminants – Tucson Water

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG	Likely Source of Contamination	
Fecal Indicator (coliphage, enterococci and/or E. coli)	N	1	2022	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	0.98	0.88 to 1.04	4	4	2022	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
Total Trihalomethanes (TTHM) (ppb)	N	23	1.6 to 41.9	80	N/A	2022	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	N	1.2	<2.0 to 2.6	60	N/A	2022	Byproduct of drinking water disinfection

Lead & Copper	MCL Violation Y or N	90th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.11	0	1.3	1.3	2020	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	0.9	0	15	0	2020	Corrosion of household plumbing systems; 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
Arsenic[1] (ppb)	N	6.7	<0.5 to 6.7	10	0	2022	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppb)	N	180	<0.2 to 180	2000	2000	2020	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	N	0.88	0.14 to 0.88	4	4	2020	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate[2] (ppm)	N	5.9	<0.5 to 5.9	10	10	2022	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	69	14 to 69	N/A	N/A	2021	Erosion of natural deposits

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
Atrazine	N	0.1	<0.05 to 0.1	3	3	2022	Discharge from rubber and chemical factories
Endothall	N	5.7	<0.05 to 5.7	100	100	2022	Runoff from herbicide use

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
Ethylbenzene (ppb)	N	0.6	<0.5 to 0.6	700	700	2022	Discharge from petroleum refineries
Toluene (ppm)	N	0.002	0.002	1	1	2022	Discharge from petroleum refineries
Xylene (ppm)	N	0.003	0.003	10	10		Discharge from petroleum or chemical factories

Radioactive Chemicals	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	7.9	<1.0 to 7.9	15	0	2022	Erosion of natural geological deposits
Combined Radium (-266 & -228) (pCi/L)	N	0.9	<0.04 to 0.9	5	0	2022	Erosion of natural geological deposits
Uranium (ppb)	N	12	<0.8 to 12	30	0	2022	Erosion of natural geological deposits

Violation Summary (for Reporting Requirement)

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
None.	N/A	N/A	N/A
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.			