



Oro Valley Water Utility 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				
AZ04-10-164	Oro Valley Water Utility				
Contact Name and Title	Phone Number	E-mail Address			
Adam Pence, Lead Operator	520-229-5042	apence@orovalleyaz.gov			
<p>You may also offer comments and suggestions at public meetings. Unless otherwise posted, the Oro Valley Town Council and Oro Valley Water Utility Commission hold regular meetings at 11000 N. La Cañada Drive, Oro Valley, AZ 85737 as follows:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Oro Valley Town Council Meetings 1st and 3rd Wednesday of every month 6:00 p.m. Town Council Chambers or via Zoom</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Oro Valley Water Utility Commission Meetings 2nd Monday of every month 5:00 p.m. Hopi Conference Room or via Zoom</p> </td> </tr> </table>				<p>Oro Valley Town Council Meetings 1st and 3rd Wednesday of every month 6:00 p.m. Town Council Chambers or via Zoom</p>	<p>Oro Valley Water Utility Commission Meetings 2nd Monday of every month 5:00 p.m. Hopi Conference Room or via Zoom</p>
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Drinking Water Sources

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. 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, 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 taken from the Canada del Oro Wash basin. In addition, 35 percent of the water delivered in 2021 was Central Arizona Project (CAP) water blended with groundwater through Tucson Water system connections. Please see most recent Tucson Water Quality Reports at https://www.orovalleyaz.gov/twccr2021.pdf
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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

- Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection.

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.

Oro Valley Water Utility 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 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	N/A	0	0	Human and animal fecal waste	
Fecal Indicator (coliphage, enterococci and/or E. coli)	N	0	N/A	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	0.62	0.44-0.88	4	0	2021	Water additive used to control microbes

Disinfection By-Products	MCL Violation Y or N	Running Annual Average (RAA) <u>OR</u> Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	N	ND	ND-ND	60	N/A	2021	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N	13	ND-13	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	0.10	0	1.3	1.3	06/19	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	2.1	0	15	0	06/19	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides	MCL Violation Y or N	Running Annual Average (RAA) <u>OR</u> Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Beta/Photon Emitters (mrem/yr.)	N	ND	0	4	0	2016	Decay of natural and man-made deposits
Alpha Emitters (pCi/L)	N	2.0	0-2.0	15	0	2019	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	1.9	0-1.9	5	0	2019	Erosion of natural deposits
Uranium (ug/L)	N	3.8	0-3.8	30	0	2019	Erosion of natural deposits
Inorganic Chemicals (IOC)	MCL Violation Y or N	Running Annual Average (RAA) <u>OR</u> Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Antimony (ppb)	N	ND	0	6	6	2019	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic ¹ (ppb)	N	4.4	0-4.4	10	0	2019	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N	ND	0	7	7	2019	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	N	ND	0	2	2	2019	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	N	ND	0	4	4	2019	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N	ND	0	5	5	2019	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N	ND	0	100	100	2019	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	ND	0	200	200	2019	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N	0.53	0-0.53	4	4	2019	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	N	ND	0	2	2	2019	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland
Nitrate ² (ppm)	N	2.4	1.0-2.4	10	10	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	N	ND	0	1	1	2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Selenium (ppb)	N	ND	0	50	50	2019	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	N	40	10-40	N/A	N/A	2019	Erosion of natural deposits
Thallium (ppb)	N	ND	0	2	0.5	2019	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	ND	0	70	70	2019	Runoff from herbicide used on row crops
2,4,5-TP (a.k.a. Silvex) (ppb)	N	ND	0	50	50	2019	Residue of banned herbicide
Acrylamide	N	ND	0	TT	0	2019	Added to water during sewage / wastewater treatment
Alachlor (ppb)	N	ND	0	2	0	2019	Runoff from herbicide used on row crops
Atrazine (ppb)	N	ND	0	3	3	2019	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)	N	ND	0	200	0	2019	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	N	ND	0	40	40	2019	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	N	ND	0	2	0	2019	Residue of banned termiticide
Dalapon (ppb)	N	ND	0	200	200	2019	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	N	ND	0	400	400	2019	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	N	ND	0	6	0	2019	Discharge from rubber and chemical factories
Dibromochloropropane (ppt)	N	ND	0	200	0	2019	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	N	ND	0	7	7	2019	Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)	N	ND	0	20	20	2019	Runoff from herbicide use
Dioxin [a.k.a. 2,3,7,8-TCDD] (ppq)	N	ND	0	30	0	2019	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall (ppb)	N	ND	0	100	100	2019	Runoff from herbicide use
Endrin (ppb)	N	ND	0	2	2	2019	Residue of banned insecticide
Epichlorohydrin	N	ND	0	TT	0	2019	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide (ppt)	N	ND	0	50	0	2019	Discharge from petroleum refineries
Glyphosate (ppb)	N	ND	0	700	700	2019	Runoff from herbicide use
Heptachlor (ppt)	N	ND	0	400	0	2019	Residue of banned termiticide
Heptachlor epoxide (ppt)	N	ND	0	200	0	2019	Breakdown of heptachlor
Hexachlorobenzene (ppb)	N	ND	0	1	0	2019	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)	N	ND	0	50	50	2019	Discharge from chemical factories
Lindane (ppt)	N	ND	0	200	200	2019	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	N	ND	0	40	40	2019	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa
Oxamyl (a.k.a. Vydate) (ppb)	N	ND	0	200	200	2019	Runoff/leaching from insecticide used on apples, potatoes and tomatoes

PCBs [Polychlorinated biphenyls] (ppt)	N	ND	0	500	0	2019	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)	N	ND	0	1	0	2019	Discharge from wood preserving factories
Picloram (ppb)	N	ND	0	500	500	2019	Herbicide runoff
Simazine (ppb)	N	ND	0	4	4	2019	Herbicide runoff
Toxaphene (ppb)	N	ND	0	3	0	2019	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	ND	0	5	0	2020	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	N	ND	0	5	0	2020	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	N	ND	0	100	100	2020	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	N	ND	0	600	600	2020	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	N	ND	0	75	75	2020	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	N	ND	0	5	0	2020	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	N	ND	0	7	7	2020	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	N	ND	0	70	70	2020	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	N	ND	0	100	100	2020	Discharge from industrial chemical factories
Dichloromethane (ppb)	N	ND	0	5	0	2020	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	N	ND	0	5	0	2020	Discharge from industrial chemical factories
Ethylbenzene (ppb)	N	ND	0	700	700	2020	Discharge from petroleum refineries
Styrene (ppb)	N	ND	0	100	100	2020	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N	ND	0	5	0	2020	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	N	ND	0	70	70	2020	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	N	ND	0	200	200	2020	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	N	ND	0	5	3	2020	Discharge from industrial chemical factories
Trichloroethylene (ppb)	N	ND	0	5	0	2020	Discharge from metal degreasing sites and other factories
Toluene (ppm)	N	ND	0	1	1	2020	Discharge from petroleum factories
Vinyl Chloride (ppb)	N	ND	0	2	0	2020	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	N	ND	0	10	10	2020	Discharge from petroleum or chemical factories

Water Quality Table - Unregulated Contaminant Monitoring Rule

Unregulated contaminants are those that don't yet have drinking water standards set by the USA EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether to set standards for them. Please see EPA website for additional information, <https://www.epa.gov/sites/production/files/2018-10/documents/ucmr4-data-summary.pdf>

Metals	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Germanium (ppt)	Y	34	0-490	300	Naturally-occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications
Manganese (ppt)	Y	626	0-14,400	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

Pesticides	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Alpha-hexachlorocyclohexane (ppt)	N	ND	0	10	Component of benzene hexachloride (BHC); formerly used as an insecticide
Chlorpyrifos (ppt)	N	ND	0	30	Organophosphate; used as an insecticide, acaricide and miticide
Dimethipin (ppt)	N	ND	0	200	Used as an herbicide and plant growth regulator
Ethoprop (ppt)	N	ND	0	30	Used as an insecticide
Oxyfluorfen (ppt)	N	ND	0	50	Used as an herbicide
Profenofos (ppt)	N	ND	0	300	Used as an insecticide and acaricide
Tebuconazole (ppt)	N	ND	0	200	Used as a fungicide
Total permethrin (cis- & trans-) (ppt)	N	ND	0	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	ND	0	700	Used as an insecticide and cotton defoliant Water additive used to control microbes
Alcohols	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
1-butanol (ppb)	N	ND	0	2.0	Used as a solvent, food additive and in production of other chemicals
2-methoxyethanol (ppt)	N	ND	0	400	Used in a number of consumer products, such as synthetic cosmetics, perfumes, fragrances, hair preparations and skin lotions
2-propen-1-ol (ppt)	N	ND	0	500	Used in the production flavorings, perfumes and other chemicals
Semivolatile Chemicals	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Butylated hydroxyanisole (ppt)	N	ND	0	30	Used as a food additive (antioxidant)
O-toluidine (ppt)	N	ND	0	7	Used in the production of dyes, rubber, pharmaceuticals and pesticides
Quinolone (ppt)	N	ND	0	20	Used as a pharmaceutical (anti-malarial) and flavoring agent; produced as a chemical intermediate; component of coal
Indicators	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
Total Organic Carbon (TOC) (ppt)	N	ND	0	1000	Used as a non-specific indicator of water quality or cleanliness of pharmaceutical equipment
bromide (ppb)	Y	41	0-130	20	Recovered from naturally occurring low grade deposits, mined either from a primary deposit or by-products of copper processing
Haloacetic Acid (HAA) Groups	Detected (Y/N)	Average	Range of All Samples (Low-High)	MRL	Likely Source of Contamination
HAA5 (ppb)	Y	0.70	0-1.03	0.2-2.0	Byproduct of drinking water disinfection
HAA6Br (ppb)	Y	1.09	0-1.722	0.2-2.0	Byproduct of drinking water disinfection
HAA9 (ppb)	Y	1.23	0-1.722	0.2-2.0	Byproduct of drinking water disinfection

Violation Summary (for MCL, MRDL, AL, TT, or Monitoring & Reporting Requirement)

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
Monitoring, Routine Minor	The Arizona Department of Environmental Quality (ADEQ) notified the Oro Valley Water Utility (OVWU) that a <i>Monitoring/Routine Minor</i> violation for Public Water System (PWS)10-164 was issued in February 2022. The notice specified that the missed monitoring occurred for the 3 rd quarter of 2019 at Entry Point to the Distribution System (EPDS) 026, for Synthetic Organic Chemicals (SOC). Required SOC samples were collected at this site on January 14, 2019, and analysis results were non detect. The testing results are in-line with historical data that shows all prior (SOC) analysis dating back to 2001, have been non detect at EPDS 026. The EPDS was determined to be in operable and was decommissioned in June 2019 due to a combination of aging well equipment, significantly reduced water pumping capacity, and a declining aquifer level. The ADEQ and the Pima County Department of Environmental Quality (PDEQ) were notified on October 14, 2019, that EPDS 026 was permanently disconnected in the 2 nd quarter of 2019 from the drinking water system effective June 27,2019. At no time was the drinking water system compromised and no regulated Maximum Contaminate Levels (MCL) for SOCs were detected at EPDS 026.	2019-2021	In accordance with the Safe Drinking Water Act, the OVWU is providing this notice to the water consumers of PWS 10-164. The OVWU provided proper notification to the ADEQ and the PDEQ in 2019. <i>There will be no enforcement action taken by Pima DEQ, ADEQ or EPA, and the violation has been closed out due to the EPDS no longer being subject to the rule.</i>
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.			

Please see most recent Tucson Water Quality Reports at <https://www.ovalleyaz.gov/twccr2021.pdf>