Consumer Confidence Report for Calendar Year 2023

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-*11-321*	*VILLA GRANDE DOMESTIC WATER IMPROVEMENT DISTRICT*	
Contact Name and Title	**Phone Number**	**E-mail Address**
JONI ROERDINK	*520-251-0481*	*villagrandedwid@gmail.com*

We want our valued customers to be informed about their water quality. If you would like to learn more about public participation or to attend any of our regularly scheduled meetings, please contact Joni Roerdink at 520-251-0481 for additional opportunity and meeting dates and times.

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 pickup 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):	*The system has two wells, which are currently providing water for the system. We currently draw water from the aquifer in the Pinal AMA.*

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 available obtained during May 2003 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. 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. VILLA GRANDE DWID 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	0	0	0	Human and animal fecal waste	
Fecal Indicator (coliphage, enterococci and/or *E. coli*)	N	0	0	0	0	Human and animal fecal waste	
Disinfectants	**MCL Violation Y or N**	**Running Annual Average (RAA)**	**Range of All Samples (Low-High)**	**MRDL**	**MRDL G**	**Sample Month & Year**	**Likely Source of Contamination**
Chlorine/Chloramine (ppm)	N	0.04	0.01-.0.06	4	0	MONTHLY 2023	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	ND	ND	60	N/A	AUG 2023	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N	ND	ND	80	N/A	AUG 2023	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	MAY & SEP 2023	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	ND	0	15	0	MAY & SEP 2023	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	14.2	14.2	15	0	FEB 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**
Antimony (ppb)	N	0	0	6	6	MAY 2022	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic[1] (ppb)	N	2.6	2.6	10	0	MAY 2022	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N	0	0	7	7	MAY 2022	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	N	0.042	0.042	2	2	MAY 2022	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	N	0	0	4	4	MAY 2022	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N	0	0	5	5	MAY 2022	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N	3.2	3.2	100	100	MAY 2022	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	0	0	200	200	MAY 2022	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	N	0.16	0.16	4	4	MAY 2022	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland
Mercury (ppb)	N	0	0	2	2	MAY 2022	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nitrate[2] (ppm)	Y	16.05	13.3-19	10	10	MAR, APR, MAY, JUL, DEC 2023	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Nitrite (ppm)	N	0	0	1	1	MAY 2022	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	N	6.7	6.7	50	50	MAY 2022	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	N	130	130	N/A	N/A	APR 2021	Erosion of natural deposits
Thallium (ppb)	N	0	0	2	0.5	MAY 2022	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. **"Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated. For further information, please see footnote #2 under Inorganic Chemicals (IOC).**

All contaminants listed below were tested for and were NOT found in our water. These contaminants are considered Non-Detect or not present:

Synthetic Organic Compounds (Last tested 5/2022): 2,4-D, 2,4,5-TP (a.k.a. Silvex), Acrylamide, Alachlor, Atrazine, Benzo (a) pyrene (PAH), Carbofuran, Chlordane, Dalapon, Di (2-ethylhexyl) adipate, Di (2-ethylhexyl) phthalate, Dibromochloropropane, Dinoseb, Diquat, Dioxin [a.k.a. 2,3,7,8-TCDD], Endothall, Endrin, Epichlorohydrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclo pentadiene, Lindane, Methoxychlor, Oxamyl (a.k.a. Vydate), PCBs [Polychlorinated biphenyls], Pentachlorophenol, Picloram, Simazine, Toxaphene

Volatile Organic Compounds (Last tested 5/2022): Benzene, Carbon tetrachloride, Chlorobenzene, o-Dichlorobenzene, p-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis-1,2 Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Toluene, Vinyl Chloride, Xylenes

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

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
MAXIMUM CONTAMINANT LEVEL (MCL) VIOLATION NITRATE EXCEEDANCE	Water samples showed that the amount of nitrate in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated. For further information, please see footnote #2 under Inorganic Chemicals (IOC).	Jan – Mar 2023 Apr – Jun 2023 Jul – Sep 2023 Oct – Dec 2023	PROVIDING TOKENS FOR BOTTLE WATER-WORKING W/AZDEQ
Reporting	Submitted results for chlorine residual to ADEQ after the reporting deadline. There are no health effects from this violation.	Jul – Sep 2023	Results provided to ADEQ.
Monitoring	Did not take water quality parameters, which are used to determine the amount of treatment required to manage lead levels in the water.	Jul – Dec 2023	Additional monitoring has found that treatment is not required.

Water Quality Table – Unregulated Contaminants

Per- and Polyfluoroalkyl Substances (In parts per trillion)	Detected (Y/N)	Average of Results (ppt)	Range of All Samples (Low-High)	Minimum Reporting Level (ppt)	Analytical Methods
Perfluorobutanesulfonic acid (PFBS)	Y	1.87	1.87	3	EPA 533

Testing for Per- and Polyfluoroalkyl substances

Your drinking water was also sampled for the presence and concentration of 29 different per- and polyfluoroalkyl substances, some known by the acronyms PFAS, PFOA, PFNA, PFHxS, PFBS, and GenX, a group of contaminants in the final stages of becoming regulated by the EPA. PFAS are man-made chemicals that are resistant to heat, water, and oil. They have been used since the 1940s to manufacture various consumer products, including fire-fighting foam and stain resistant, water-resistant, and nonstick items. Many PFAS do not break down easily and can build up in people, animals, and the environment over time. Scientific studies have shown that exposure to certain PFAS can be harmful to people and animals, depending on the level and duration of exposure.

To learn more about this group of chemicals, we encourage you to read the ADEQ's "PFAS 101 Fact Sheet" and to visit the ADEQ website at https://www.azdeq.gov/pfas-resources

***** EPA is proposing a Hazard Index MCL to limit any mixture containing one or more of PFNA, PFHxS, PFBS, and/or GenX Chemicals. The Hazard Index considers the different toxicities of PFNA, GenX Chemicals, PFHxS, and PFBS. For these PFAS, water systems would use a hazard index calculation to determine if the combined levels of these PFAS in the drinking water at that system pose a potential risk and require action (Source: EPA Fact Sheet: Understanding the PFAS National Primary Drinking Water Proposal Hazard Index).

The following contaminants were tested for in May 2023 and **were not detected in the water**:

11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)

1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)

1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)

1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)

4,8-dioxa-3H-perfluorononanoic acid (ADONA)

9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)

hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)

nonafluoro-3,6-dioxaheptanoic acid (NFDHA)

Perfluoro-3-methoxypropanoic acid (PFMPA)

Perfluoro-4-methoxybutanoic acid (PFMBA)

Perfluorobutanesulfonic acid (PFBS)

Perfluorobutanoic acid (PFBA)

Perfluorodecanoic acid (PFDA)

Perfluorododecanoic acid (PFDoA)

Perfluoroheptanesulfonic acid (PFHpS)

Perfluoroheptanoic acid (PFHpA)

Perfluorohexanesulfonic acid (PFHxS)

Perfluorohexanoic acid (PFHxA)

Perfluorononanoic acid (PFNA)

Perfluorooctanesulfonic acid (PFOS)

Perfluorooctanoic acid (PFOA)

Perfluoropentanesulfonic acid (PFPeS)

Perfluoropentanoic acid (PFPeA)

Perfluoroundecanoic acid (PFUnA)

n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)

n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)

Perfluorotetradecanoic acid (PFTA)

Perfluorotridecanoic acid (PFTrDA)