Providing a High Quality Supply of Water and Reliable Service to All Customers at a Fair and Reasonable Rate

2022 Annual Drinking Water Quality Report

Published June 30, 2023

About This Report

Bighorn-Desert View Water Agency (BDVWA) is pleased to present you with the Annual Consumer Confidence Report for the Year Ending 2022. Also considered the Drinking Water Quality Report, you will be happy to learn that your water met all US Environmental Protection Agency and California Division of Drinking Water (DDW) Health Standards in 2022.

In 2022, they Agency was required to conduct a Level II Assessment with the State Drinking Water Engineer to evaluate the water system (See Page 20 for the required notice to Customers.)

This report may seem complicated. Please call us at our office should you have any specific questions.

No habla inglis? Este informe contiene informaciaon muy importante sobre su agua potable. Traduscalo o hable can alguien que lo entienda bien. Llame 760-364-2315.

How to Contact Us

General and Billing Information……... 760-364-2315

Agency Email……...info@bdvwa.org

Agency Website……http://www.bdvwa.org

Information Websites

CA Division of Drinking Water…… waterboards.ca.gov

U.S. EPA …… water.epa.gov/drink/index.cfm

Mojave Water Agency…….. mojavewater.org

Alliance for Water Awareness and Conservation

A collaborative group of over twenty agencies committed to achieving water conservation goals

…… mojavewater.org/conservation/awac

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Western Tanager (Landers, CA)

Our Water Supply

WHAT IS IN MY WATER?

The sources of all drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, groundwater aquifers, 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. Native water can also pick-up substances resulting from the presence of animals and human activity. Your water source is groundwater aquifers within the Ames Valley Groundwater Basin.

Contaminants that may be present in source water include:

- *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 and rural storm water runoff, industrial or domestic wastewater (septic) discharges, oil and gas production, mining, or farming. In our community, arsenic and chromium-6 are detected but at low levels.*
- *Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production. Contaminants can also come from gas stations, urban and rural storm water runoff as well as dumping of fuel or oil into a septic tanks or on the ground.*
- *In our service territory septic systems pose the most vulnerability to organic chemical contaminants from all the mentioned sources (prescriptions, fuel, oil, paints/stains, etc.). Nitrate are tested at source wells annually and there is no indication septic leachate has reached our water sources.*
- *Radioactive contaminants that can be naturally occurring or the result of oil and gas production and mining activities. In our community, uranium is naturally occurring but below the regulatory standard.*
- *Pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff and residential uses (septic). None of these constituents have ever been detected.*

In order to ensure that tap water is safe to drink, U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. *The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health."* Additional information on bottled water is available on California Department of Public Health's website at https://www.cdph.ca.gov/Programs/CEH/DFDCS/Pages/FDBPrograms/FoodSafetyProgram/Water.aspx.

DIVERSIFYING OUR WATER SUPPLY

Photo courtesy of Marina West

Natural Recharge Local Mountain Snowpack & Rain

Water supply diversification is a mechanism used in water management to avoid the unnecessary depletion of natural resources in order to maintain balance of all resources. In the case of your water agency, diversification allows us to utilize a water source from outside the service area to supplement native groundwater supplies. This is done through a process known as groundwater recharge. The agency purchases water that falls as rain in the mountains of Northern California, transported through a system of canals, pipelines and pump stations (The California State Water Project) to the Mojave Water Agency.

Artificial Recharge at the Ames/Reche Groundwater Storage & Recovery Facility

It is then transported to Landers via the Morongo Basin Pipeline where it is released into an artificial recharge pond. The water percolates and is safely stored underground to be retrieved from the Agency's "water bank" when needed. **By 2022 year-end, the Agency had recharged a total of 620 Acre-Feet with a current value of $410,000.**

Last calendar-year the Agency pumped 542 Acre-Ft of water. One acre-foot is 325,829 gallons. With 2,336 "active" service connections the basic math is 108 gallons per person per day indoor and outdoor use.

Water Quality Analysis Results

The Bighorn-Desert View Water Agency encompasses 59-square miles and operates three distinct water delivery systems: Bighorn-Desert View (BDV); Improvement District Goat Mountain (ID GM) and Johnson Valley Bulk Hauling Station (Well 10). There are five wells serving BDV, two wells serving ID GM and one well in Johnson Valley. The wells pump from the Ames-Means Valley and the Johnson Valley Groundwater Basins. The tables on the following pages show a summary of the actual test results of your drinking water from each different water system and compares them with constituent level limits and goals set by the U.S. EPA to ensure your tap water is safe.

In 2022, 1,605 individual water quality tests were performed by a state-certified lab. Some of the constituents in this report reflect those which have exceeded the Detection Level for Reporting Purposes but have not exceeded the Maximum Contaminant Level. Others such as Sodium and Hardness are listed for information only. Lastly, the State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old as indicated by the “sample year”.

1,605 individual water quality tests were completed in 2022

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Important Health Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants and native trace elements. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 1-800 -426-4791. 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 and some elderly and infants can be particularly at-risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on the appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Health Effects

Arsenic - While your drinking water meets the federal and state standard for arsenic (10 parts per billion), it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Fluoride - Some people who drink water containing fluoride in excess of the federal Maximum Contaminant Level (MCL) of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L, may get mottled teeth.

Gross Alpha & Uranium - Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

Hexavalent Chromium - Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer.

Nitrate - Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood in pregnant women.

Unregulated Contaminant Monitoring - Helps the USEPA and the California Department of Public Health to determine where certain contaminants occur and whether those contaminants require regulation.

How to Read the Tables

The tables on the following pages list parameters which California Department of Drinking Water (DDW) requires the Agency to monitor, which may be associated with primary (health), secondary (aesthetic), or no established standards. The tables summarize monitoring from January 2022 - December 2022, and may include earlier monitoring data. The tables list all parameters that were detected at or above DDW's Detection Limit for Purposes of Reporting (DLR) from 1,605 analysis from water well and distribution system sampling points.

Abbreviations

- **AL** - Regulatory Action Level.
- **BDVWA -** Bighorn-Desert View Water Agency.
- **DDW** - State Water Resources Control Board Division of Drinking Water Programs.
- **DLR** - Detection Limit for Reporting.
- **DPH** - Department of Public Health.
- **CL2 -** Free Chlorine Residual.
- **MCL** - Maximum Contaminant Level.
- **MCLG -** Maximum Contaminant Level Goal.
- **MRDL** - Maximum Residual Disinfectant Level.
- **ND -** Not Detectable at Testing Limit.
- **N/A** - Not Applicable.
- **NTU -** Nephelometric Turbidity Unit.
- **OU** - Odor Unit.
- **pCi/L -** Pico Curies Per Liter (a measure of radiation).
- **PDWS** - Primary Drinking Water Standard.
- **PHG** - Public Health Goals.
- **ppb -** Parts Per Billion or Micrograms Per Liter (ug/L) - [1ppb= 0.001 ppm].
- **ppm -** Parts Per Million or Milligrams Per Liter (mg/L) - [1ppm=1,000 ppb]. Or one drop in an Olympic sized swimming pool.
- **SDWS-** Secondary Drinking Water Standards.
- **TTHM -** Total Trihalomethanes.

Definition of Terms

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals (or MCLGs) as is economically and technologically feasible. The U.S. Environmental Protection Agency sets secondary MCLGs.

Secondary Drinking Water Standards (SDWS) - MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Public Health Goals (PHG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Primary Drinking Water Standard (PDWS) - MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Regulatory Action Level (AL)- The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

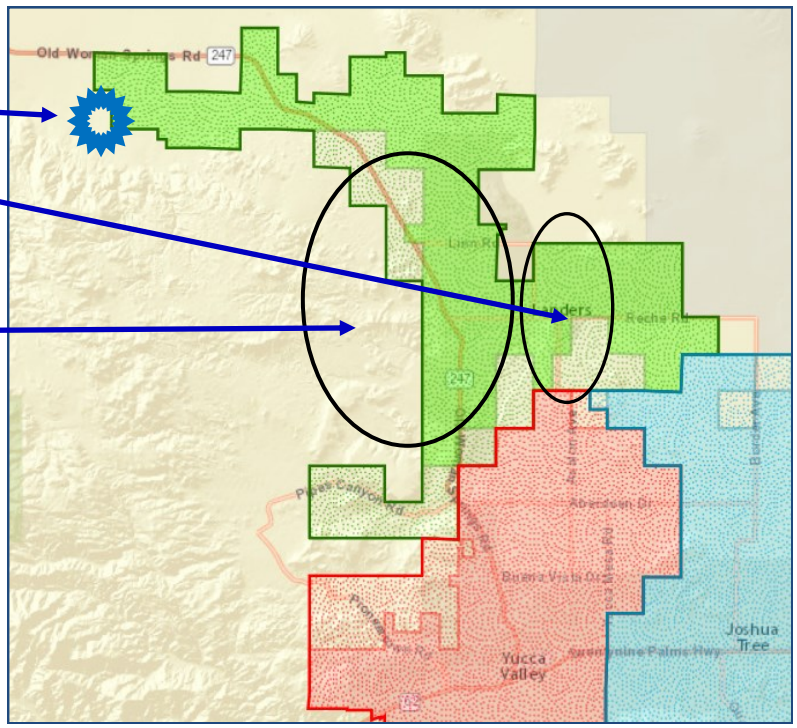
Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Landers, CA

Three Distinct Water Systems

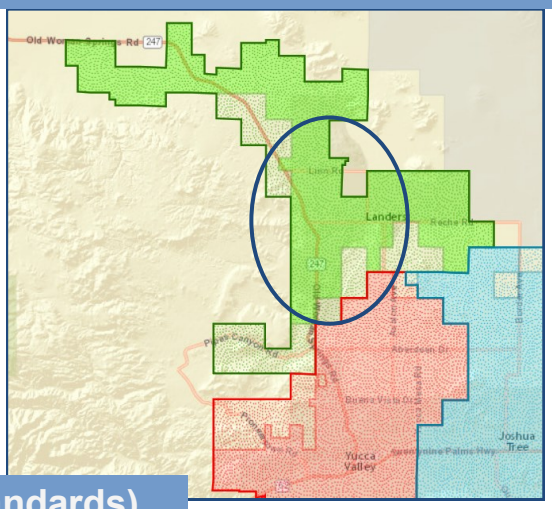
Which one is yours?

- Johnson Valley (pages 15-17), a bulk water hauling system summarizes the test results from Well 10. The facility is located at Airport Road and Quailbush Road.
- The Improvement District Goat Mountain (pages 12-14) summarizes test results from Wells GMW1 and GMW3.
- The Bighorn-Desert View (pages 9-11) summarizes test results from Wells 3, 6, 7, 8 and 9.



From January 1, 2022 to December 31, 2022 the Bighorn-Desert View Water Agency ordered 1,605 individual water quality tests from samples taken at various locations throughout your water system in accordance with state and federal laws. The following tables list only those contaminants that have been detected for the constituent as well as those required to be reported annually. The sample year indicates the most recent year that one or more sources were last tested. All sources are tested at least every 9 years, but not necessarily the same year. It is important to note that the presence of these constituents, as detected in water, does not necessarily indicate that the water poses a health risk. BDVWA had no violations of a maximum contaminant level or secondary water quality standards in 2022.

Bighorn-Desert View Water Agency Service Area (Flamingo Heights and West Landers)



Primary Standards (Mandatory Health Related Standards)

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic	ppb	2021	3.9	ND - 5.3	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Fluoride	ppm	2022	0.85	0.57 - 1.2	2.0	1.0	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Gross Alpha (Net)	pCi/L	2022	6.67 (0-0.075)	ND - 11 (0-1.5)	15	(0.0)	Erosion of natural deposits. (Gross Alpha minus Uranium equals Gross Alpha "Net")
Nitrate as N (N03-N)	ppm	2022	1.7	1.3 - 2.1	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Uranium	pCi/L	2022	7.1	1.9 - 14	20	0.43	Erosion of natural deposits.

Coliform Bacteria — Nine samples collected monthly

Microbiological Contaminants	Sample Year	Highest No. of Detections	No. of Months in Violation	MCL	PHG (MCLG)	Typical Source of Bacteria
Total Coliform Bacteria/State Total Coliform Rule	2022	4	2	More than 1 sample in a month with a detection. SEE PAGE 20 FOR SPECIAL NOTICE TO CUSTOMERS	(0)	Naturally present in the environment.

Summary of Lead Testing at Schools within the Agency

Lead	Units	Sample Year	# of Schools in service area	# of Schools requesting testing	# of Samples	AVG.	Range	Violation
Lead	ppb	2017	1	1	5	ND	ND	No

Typical source of lead contamination in drinking water are internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.

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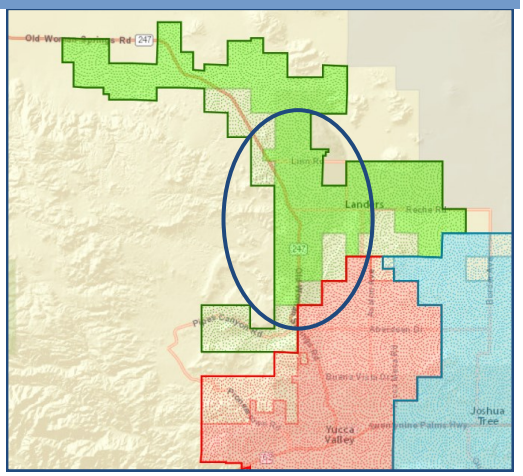
Bighorn-Desert View Water Agency Service Area (Flamingo Heights and West Landers—*Continued)*



Primary Standards (Mandatory Health Related Standards)

Lead & Copper Study	Units	Sample Year**	No. of Samples Collected	90th Percentile Level Detected	No. of Sites Exceeding AL	AL	PHG (MCLG)	Typical Source of Contaminant
Lead	ppb	2022	22	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper	ppm	2022	22	0.083	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Bighorn-Desert View Water Agency 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. If you are concerned about lead in your water, you may wish to have your water tested. 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 http://www.epa.gov/lead

*** The next round of voluntary residential testing for Lead and Copper will take place between the months of June – September 2025. If you would like to be a participant in this free voluntary program please contact our office to determine if your residential plumbing materials make you vulnerable to lead and copper contamination.*

Detected Disinfection By-Products, Disinfectant Residual & Disinfection By-Product Precursors

	Units	Sample Year	BDVWA Average Level Detected	BDVWA Range of Detections	MCL [MDRL]	PHG [MRDLG]	Typical Source of Contaminant
Free Chlorine Residual (as CL2)	ppm	2022	0.90	0.40 - 1.55	[4]	[4]	Drinking water disinfectant added for treatment.
Total Trihalomethanes (TTHM)	ppb	2022	11.2	11.2	80	n/a	By-product of drinking water chlorination.
Total Haloacetic Acid (HAA5)	ppb	2022	1.2	1.2	60	n/a	By-product of drinking water disinfection.

All drinking water must be disinfected to ensure that any potentially dangerous microbes are neutralized. In order to prevent growth of these microbes as drinking water travels from our reservoirs through the distribution system to your home or business, a disinfectant residual must be maintained. We preform frequent and comprehensive monitoring to ensure that disinfectant levels remain in the proper range throughout our distribution system.

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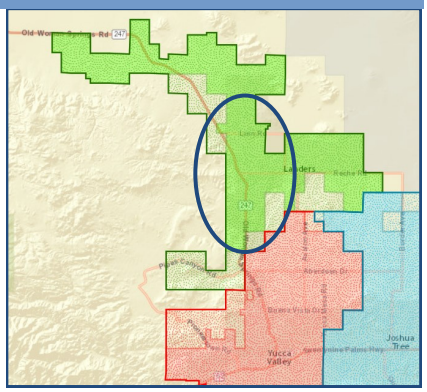
Bighorn-Desert View Water Agency Service Area (Flamingo Heights and West Landers -*Continued)*



Detected Regulated CCR Parameters with Secondary MCLs

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of
Chloride	ppm	2022	19	17 - 23	500	n/a	Runoff/leaching from natural deposits; seawater influence.
Odor (Total Odor)	OU	2022	1	1	3	n/a	Naturally-occurring organic materials.
Sulfate	ppm	2022	38	33 - 50	500	n/a	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids	ppm	2022	263	240 - 290	1000	n/a	Runoff/leaching from natural deposits.
Turbidity	NTU	2021	ND	ND	5.0	n/a	Soil runoff.

Detected Unregulated Parameters Requiring Monitoring

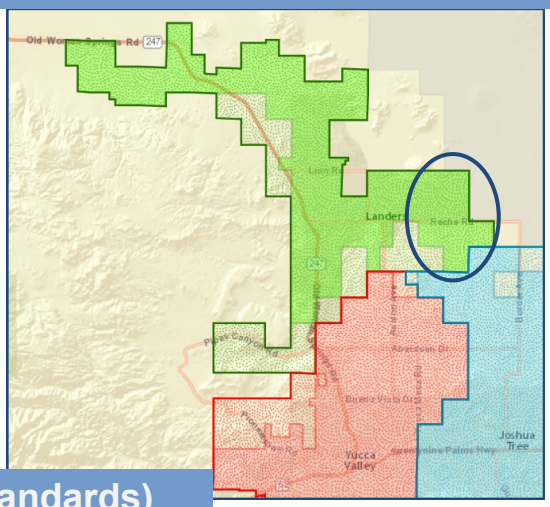
Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron	ppb	2022	130	120 - 140	1000	The babies of some pregnant woman who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Vanadium	ppb	2021	13	4.5 - 18	50	The babies of some pregnant woman who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Hexavalent Chromium (*)	ppb	2021	3.3	3.2 - 3.4	N/A	Erosion of natural deposits; discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production and textile manufacturing facilities.

* There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L (10 ppb) was withdrawn on September 11, 2017. Howev-

Other Parameters That May Be Of Interest

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium	ppm	2022	46.5	42 - 53	n/a	n/a	Salt present in the water and is generally naturally occurring.
Hardness	ppm	2022	120	110 - 130	n/a	n/a	Sum of polyvalent cations present in the water, generally magnesium and calcium and are usually naturally occurring.

Bighorn-Desert View Water Agency — Improvement District Goat Mountain



Primary Standards (Mandatory Health Related Standards)

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic	ppb	2021	4.15	3.8-4.5	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Fluoride	ppm	2021	0.38	0.37-0.40	2.0	1.0	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Gross Alpha (Net)	pCi/L	2022	2.05 (0.25)	ND-4.1 (0-0.5)	15	(0.0)	Erosion of natural deposits. (Gross Alpha minus Uranium equals Gross Alpha "Net")
Nitrate as N (N03-N)	ppm	2022	1.35	1.3 - 1.4	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Uranium	pCi/L	2022	2.60	1.6 - 3.6	20	0.43	Erosion of natural deposits.

Coliform Bacteria — Three samples collected monthly

Microbiological Contaminants	Sample Year	Highest No. of Detections	No. of Months in Violation	MCL	PHG (MCLG)	Typical Source of Bacteria
Total Coliform Bacteria/State Total Coliform Rule	2022	1	0	More than 1 sample in a month with a detection.	(0)	Naturally present in the environment.

Summary of Lead Testing at Schools within the Agency

	Units	Sample Year	# of Schools in service area	# of Schools requesting testing	# of Samples	AVG.	Range	Violation
Lead	ppb	2017	0	0	2017	N/A	N/A	No

Typical source of lead contamination in drinking water are internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.

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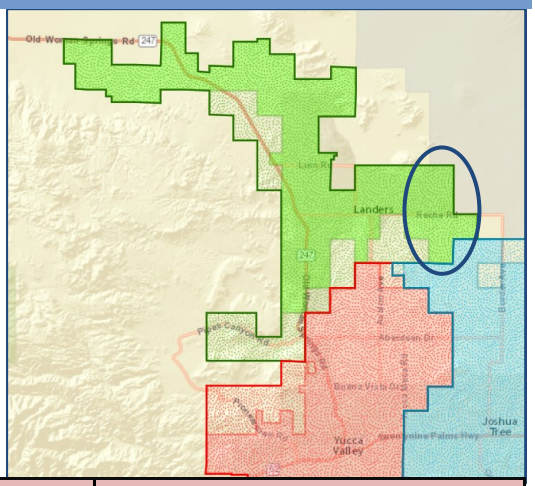
Bighorn-Desert View Water Agency — Improvement District Goat Mountain *(Continued)*



Detected Regulated CCR Parameters with Secondary MCLs

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of
Chloride	ppm	2021	15.5	15 - 16	500	N/A	Runoff/leaching from natural deposits; seawater influence.
Odor (Total Odor)	OU	2021	1	1	3	N/A	Naturally-occurring organic materials.
Sulfate	ppm	2021	26.5	26 - 27	500	N/A	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids	ppm	2021	215	200 - 230	1000	N/A	Runoff/leaching from natural deposits.
Turbidity	NTU	2021	0.105	ND - 0.11	5.0	N/A	Soil runoff.

Detected Unregulated Parameters Requiring Monitoring

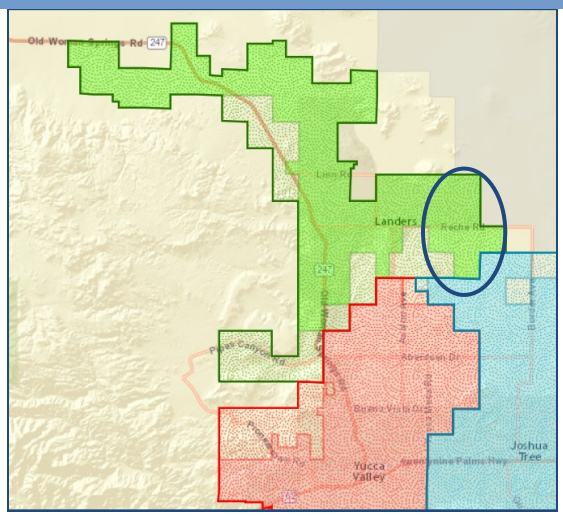
Chemical or Constituent	Units	Sample Year	Level Detected	Range of Detections	Notification Level	Health Effects Language
Vanadium	ppb	2021	8.4	-	50	The babies of some pregnant woman who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Hexavalent Chromium	ppb	2021	3.7	3.6 - 3.8	N/A	Erosion of natural deposits; discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production and textile manufacturing facilities.

* There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L (10 ppb) was withdrawn on September 1, 2018. However, any hexavalent chromium results above the detection limit of 1 ppb should be reported.

Other Parameters That May Be Of Interest

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium	ppm	2021	46	45 - 47	n/a	n/a	Salt present in the water and is generally naturally occurring.
Hardness	ppm	2021	104	88 - 120	n/a	n/a	Sum of polyvalent cations present in the water, generally magnesium and calcium and are usually naturally occurring.

Bighorn-Desert View Water Agency — Improvement District Goat Mountain *(Continued)*



Primary Standards (Mandatory Health Related Standards)

Lead & Copper Study	Units	Sample Year**	No. of Samples Collected	90th Percentile Level Detected	No. of Sites Exceeding AL	AL	PHG (MCLG)	Typical Source of Contaminant
Lead	ppb	2022	13	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper	ppm	2022	13	0.110	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Bighorn-Desert View Water Agency 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. If you are concerned about lead in your water, you may wish to have your water tested. 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 http://www.epa.gov/lead

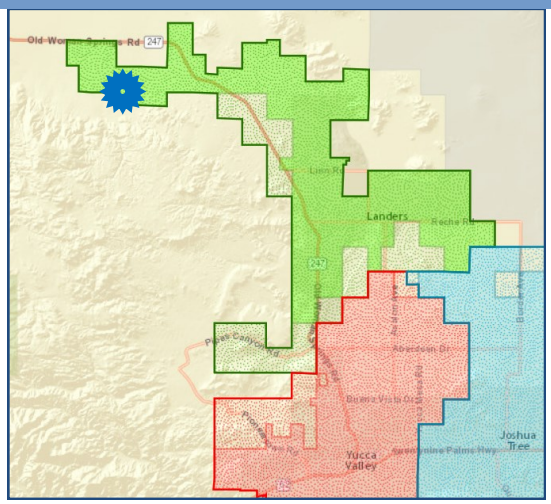
*** The next round of voluntary residential testing for Lead and Copper will take place between the months of June – September 2025. If you would like to be a participant in this free voluntary program please contact our office to determine if your residential plumbing materials make you vulnerable to lead and copper contamination.*

Detected Disinfection By-Products, Disinfectant Residual & Disinfection By-Product Precursors

	Units	Sample Year	Average Level Detected	Range of Detections	MCL [MDRL]	PHG (MRDLG)	Typical Source of Contaminant
Free Chlorine Residual (as CL2)	ppm	2022	0.81	0.51 - 1.65	[4]	[4]	Drinking water disinfectant added for treatment.
Total Trihalomethanes (TTHM)	ppb	2022	5.45	ND - 10.9	80	n/a	By-product of drinking water chlorination.
Total Haloacetic Acid (HAA5)	ppb	2022	ND	ND	60	n/a	By-product of drinking water disinfection.

All drinking water must be disinfected to ensure that any potentially dangerous microbes are neutralized. In order to prevent growth of these microbes as drinking water travels from our reservoirs through the distribution system to your home or business, a disinfectant residual must be maintained. We preform frequent and comprehensive monitoring to ensure that disinfectant levels remain in the proper range throughout our distribution system.

Bighorn-Desert View Water Agency
Johnson Valley
Well No. 10 Hauling Station



Primary Standards (Mandatory Health Related Standards)

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Arsenic	ppb	2020	2.6	2.6	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Fluoride	ppm	2020	0.74	0.73 - 0.75	2.0	1.0	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Gross Alpha (Net)	pCi/L	2016	13 (8.5)	13 (8.5)	15	(0.0)	Erosion of natural deposits. (Gross Alpha minus Uranium equals Gross Alpha "Net")
Nitrate as N (N03-N)	ppm	2022	1.5	1.5	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Uranium	pCi/L	2016	4.5	4.5	20	0.43	Erosion of natural deposits.

Coliform Bacteria — One sample collected each month

Microbiological Contaminants	Sample Year	Highest No. of Detections	No. of Months in Violation	MCL	PHG (MCLG)	Typical Source of Bacteria
Total Coliform Bacteria/State Total Coliform Rule	2022	0	0	More than 1 sample in a month with a detection.	(0)	Naturally present in the environment.

Summary of Lead Testing at Schools within the Agency

	Units	Sample Year	# of Schools in service area	# of Schools requesting testing	# of Samples	AVG.	Range	Violation
Lead	ppb	2017	0	0	2017	N/A	N/A	NO

Typical source of lead contamination in drinking water are internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.

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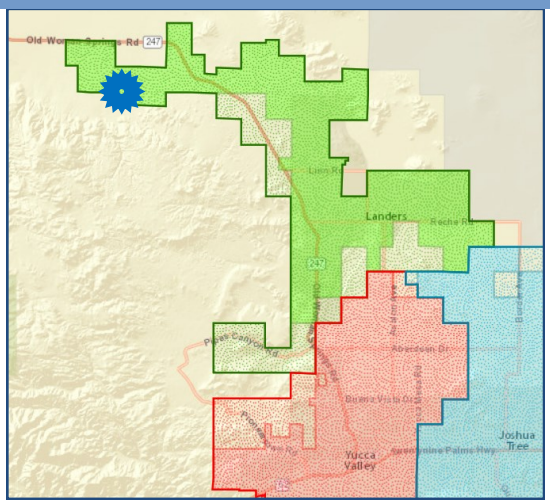
Bighorn-Desert View Water Agency
Johnson Valley
Well No. 10 Hauling Station (*Continued*)



Detected Disinfection By-Products, Disinfectant Residual & Disinfection By-Product Precursors

	Units	Sample Year	BDVWA Average Results	BDVWA Range of Results	MCL (MDRL)	PHG (MRDLG)	Typical Source of Contaminant
Free Chlorine Residual (as CL2)	ppm	2022	0.89	0.73 - 1.19	[4]	[4]	Drinking water disinfectant added for treatment.
Total Trihalomethanes (TTHM)	ppb	2022	1.1	1.1	80	n/a	By-product of drinking water chlorination.
Total Haloacetic Acid (HAA5)	ppb	2022	ND	ND	60	n/a	By-product of drinking water disinfection.

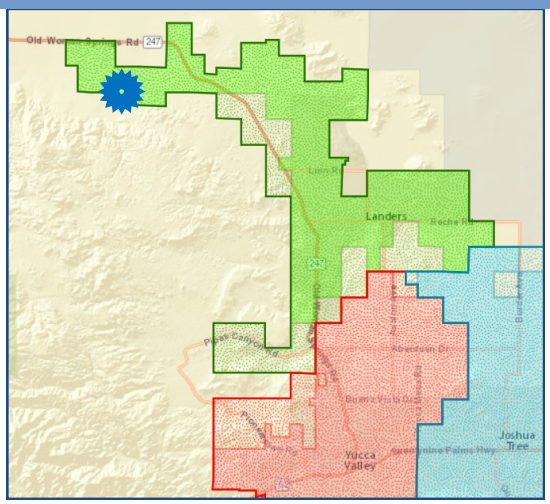
All drinking water must be disinfected to ensure that any potentially dangerous microbes are neutralized. In order to prevent growth of these microbes as drinking water travels from our reservoirs through the distribution system to your home or business, a disinfectant residual must be maintained. We preform frequent and comprehensive monitoring to ensure that disinfectant levels remain in the proper range throughout our distribution system.

Detected Regulated CCR Parameters with Secondary MCLs

Chemical or Constituent	Units	Sample Year	Level Detected	Range of Detection	MCL	PHG (MCLG)	Typical Source of
Chloride	ppm	2020	41	40 - 42	500	n/a	Runoff/leaching from natural deposits; seawater influence.
Odor (Total Odor)	OU	2020	1	1	3	n/a	Naturally-occurring organic materials.
Sulfate	ppm	2020	98.5	97 - 100	500	n/a	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids	ppm	2020	350	340 - 360	1000	n/a	Runoff/leaching from natural deposits.
Turbidity	NTU	2020	ND	ND	5.0	n/a	Soil runoff.
Zinc	ppm	2020	0.03	ND - 0.06	300	n/a	Leaching from natural deposits; industrial wastes.

Bighorn-Desert View Water Agency
Johnson Valley

Well No. 10 Hauling Station (*Continued*)



Detected Unregulated Parameters Requiring Monitoring

Chemical or Constituent	Units	Sample Year	Level Detected	Range of Detections	Notification Level	Health Effects Language
Boron	ppb	2020	205	200 - 210	1000	The babies of some pregnant woman who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Vanadium	ppb	2020	19	19	50	The babies of some pregnant woman who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.
Hexavalent Chromium	ppb	2020	5.1	5.1	N/A	Some people who drink water containing 1,2,3-Trichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.

Other Parameters That May Be Of Interest

Chemical or Constituent	Units	Sample Year	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium	ppm	2020	97.5	97 - 98	N/A	N/A	Salt present in the water and is generally naturally occurring.
Hardness	ppm	2020	66.5	66 - 67	N/A	N/A	Sum of polyvalent cations present in the water, generally magnesium and calcium and are usually naturally occurring.

Protect Your Groundwater ! Protect the Environment !

Keep pollutants out of the Aquifer! Stormwater often contains pollutants including chemicals, trash, and automobile fluids. To do your part in keeping our groundwater clean and safe, consider the following……..

- Your car can be a source of pollutants. Check your vehicle regularly for fluid leaks. Use a funnel to prevent spills. Use drip pans and drop cloths when making repairs and changing your oil.
- Dispose of construction waste and trash from around your yard. Yard waste has the potential to carry hazardous landscaping chemicals like pesticides.
- Items such as pharmaceuticals, solvents and drain cleaners can cause ground-water contamination and should never be flushed down the toilet or poured down the sink.
- Compost food scraps along with manure from horses, chickens and/or goats. Composting reduces the need for chemical fertilizers and helps plants absorb nutrients already in the soil and provides some extra nutrients too.

IF YOU'RE PLANNING TO DEVELOP A NEW OUTDOOR LAND-SCAPE OR JUST REPLACING A FEW THIRSTY PLANTS

Check out the extensive plant database:

https://www.mojavewater.org/conservation/landscaping-resources/plant-database/

Source Water Assessment

A drinking water source assessment was completed for all wells in the Bighorn-Desert View Water Agency water system in December 2002. The report indicates that Wells 3, 6, 7, 8, 9, and 10 are considered susceptible to septic leachate and erosion of natural deposits. A drinking water source assessment was completed for all wells in the Improvement District Goat Mountain water system in July 2012, prior to annexation to BDVWA effective July 1, 2015. The report indicates that wells GMW1 and GMW3 are considered susceptible to septic leachate, above ground storage tanks and wells. You may request a summary of the assessment be sent to you by contacting a Sanitary Engineer at the State Water Resources Control Board (Division of Drinking Water) at 909-383-4328. If you have questions about this report or want to learn more about the Agency, you may contact the Agency's General Manager, Marina D. West, PG at 760-364-2315. To learn more information about contaminants and potential health effects, call the USEPA's Safe Drinking Water Hotline at 1-800-426-4791 or visit their website at http://www.epa.gov/ow/.

Community Participation

Our Regular Board of Directors Meetings are held on the second (2nd) Tuesday of each month at 6 PM at 1720 North Cherokee Trail, Landers, CA 92252. Committees and Special Meetings occur throughout the year. The public is welcome and encouraged to attend. To confirm meeting dates, times, locations and to access the meeting agendas please **visit our website at www.bdvwa.org or www.bdvwa.org/board-and-governance/agendas-and-packets/** or contact our **Customer Service Staff at 760-364-2315 or via email at info@bdvwa.org.**

Office Location

Bighorn-Desert View Water Agency is located at 622 S. Jemez Trail, Yucca Valley, CA. Our office hours are Monday through Friday from 8:00am- 4:30pm except holidays. The phone number is 760-364-2315 for general inquiries and after-hours emergencies. When calling after hours you will be prompted to press an extension for "emergencies" and asked to leave a voice mail. If necessary, the on-call staff will return your call in a timely manner.

2022 Board of Directors

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David Chapman

Director

SPECIAL NOTICE TO BIGHORN-DESERT VIEW WATER AGENCY CUSTOMERS

Bighorn-Desert View Water Agency experienced positive Coliform results during monthly routine sampling in 2022.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct ONE (1) Level 1 assessment. One (1) Level 1 assessment was completed. In addition, we were required to take two (2) corrective actions and we completed two (2) of these actions. These included use of Emery paper to remove scale build-up on copper sample tubing and re-assessment of sampling protocols including a review of sample containers provided by a third party.

During the past year ONE (1) Level 2 assessment was required to be completed for our water system. One (1) Level 2 assessment was completed. In addition, we were required to take seven (7) corrective actions and we completed seven (7) of these actions. These included tank diving for cleaning, inspection and spot-coating of corrosion, tank vent screen upgrades, new sample station installation (stainless steel components rather than copper), retraining and additional sanitation measures.

Below: New Dedicated Sampling Station for Obtaining Water Samples from the Water Distribution System for Analysis by the State-Certified Laboratory

Above: Operator Gathers a Water Sample for Bacteriological Coliform Analysis by the State-Certified Laboratory

www.bdvwa.org

Published June 30, 2023