

ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By





Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

Where Does My Water Come From?

The Indian Wells Valley Water District serves approximately 30,000 people through approximately 12,000 connections in Ridgecrest and the surrounding areas. Our water supply comes from 11 wells that draw water from the Indian Wells Valley Aquifer. Water is pumped from these wells through transmission lines and booster stations to 11 water storage tanks with a capacity of 19.9 million gallons. From there, water is delivered by gravity through the distribution lines to the customers.

Source Water Assessment

The State Board requires a source water assessment for all drinking water sources across the state. The purpose of the assessments is to determine the susceptibility of each drinking water source to potential contamination and establish a high, moderate, or low relative susceptibility rating for each source. A high rating indicates the lowest susceptibility to contamination.

Assessments for Wells 10, 11, 13, 18, 30, 31, and 33 were conducted in 2001 and 2002 by the State Board. The assessment of Well 34 was conducted in 2008, and Wells 9A and 17 were assessed in 2018. The assessment for our newest well, Well 35, was conducted in 2021. All district wells received a susceptibility rating of moderate. The geology of the Indian Wells Valley makes it impossible to locate wells in confined aquifers; therefore, our wells cannot receive the highest rating. Nevertheless, district wells conform to the highest standards and typically received the best score possible on the assessment. Water assessment reports are available from Renee Morquecho, Chief Engineer, at (760) 375-5086.

Level 1 Assessment Update

Coliforms are bacteria that are naturally present in the environment and 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 and correct any problems.

During the past year we were required to conduct one Level 1 assessment, and it was completed. As a result of the assessment, we were not required to take any corrective actions.

Community Participation

You are invited to participate during your board of directors' meetings and voice your concerns about your drinking water. We meet the second Monday of each month at 6:00 p.m. in our boardroom, 500 West Ridgecrest Boulevard, Ridgecrest.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Renee Morquecho, Chief Engineer, at (760) 375-5086. Or please visit our website at www.iwvwd.com.

Substances That Could Be in Water

The sources of drinking water (both tap water 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, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) 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. 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.

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 can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.



Water Conservation Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Test Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic, radioactive, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water.

The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2022	10	0.004	1.2	ND–7.5	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2022	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.78	0.47–1.07	No	Drinking water disinfectant added for treatment
Coliform Assessment and/or Corrective Action Violations (% positive samples)	2022	TT	NA	11.39	NA	No	Naturally present in the environment
Fluoride (ppm)	2020	2.0	1	0.70	0.6–1.3	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity	2022	15	(0)	1.5	ND–5.5	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 1	2022	60	NA	0.75	ND–1.5	No	By-product of drinking water disinfection
Nitrate [as nitrate]	2022	45	45	1.3	ND–2.6	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 1	2022	80	NA	6.15	ND–12.3	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2021	1.3	0.3	0.25	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2021	15	0.2	ND	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride	2020	500	NS	66.9	15–220	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance	2020	1,600	NS	511	300–1,000	No	Substances that form ions when in water; seawater influence
Sulfate	2020	500	NS	36.9	23–60	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	2020	1,000	NS	312	190–580	No	Runoff/leaching from natural deposits



UNREGULATED SUBSTANCES³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Boron (ppb)	2020	746	200–2,200 ¹
Chromium VI [Hexavalent Chromium] (ppb)	2020	1.1	ND–5.3
Hardness, Total [as CaCO ₃] (ppm)	2020	57.8	7.8–110
Sodium (ppm)	2020	86.2	42–200
Vanadium (ppb)	2020	13.3	ND–56 ²

OTHER UNREGULATED SUBSTANCES³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Bicarbonate (ppm)	2020	118.3	84–140
Bromide (ppb)	2020	136	ND–480
Bromochloroacetic Acid (ppb)	2020	0.93	ND–1.3
Calcium (ppm)	2020	20.3	3.1–37
Carbonate (ppm)	2020	6.5	ND–18
Dibromoacetic Acid (ppb)	2020	0.69	ND–0.85
Dichloroacetic Acid (ppb)	2020	0.82	ND–1.2
Germanium (ppb)	2020	0.65	ND–1.9
Magnesium (ppm)	2020	2	ND–5.4
Manganese (ppb)	2020	0.21	ND–0.92
pH (units)	2020	8.6	7.9–9.3
Potassium (ppm)	2020	1.6	ND–2.5
Sodium (ppm)	2020	86.2	42–200
Total Alkalinity (ppm)	2020	106.8	84–130

¹ Samples from Wells 9A, 10, 11, and 13 reported concentrations of 1,500, 1,000, 2,200, and 1,100 ppb, respectively, in 2020.

² A sample from Well 17 contained a concentration of 56 ppb in 2020.

³ Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): 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. EPA.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

pCi/L (picocuries per liter): A measure of radioactivity.

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

PHG (Public Health Goal): 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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

