



ANNUAL WATER QUALITY REPORT

Reporting Year 2023



Presented By



INDIAN WELLS VALLEY
WATER DISTRICT



Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.



PWS ID#: 1510017

Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2023. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

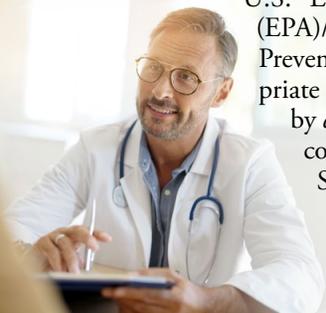
Lead in Home Plumbing

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 www.epa.gov/safewater/lead.



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. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (CDC) 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>.



Source Water Assessment

The SWRCB 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 highest susceptibility to contamination.

Assessments for Wells 10, 11, 13, 18, 30, 31, and 33 were conducted in 2001 and 2002 by the SWRCB. Well 34 was assessed in 2008, and Wells 9A and 17 in 2018. The assessment for our newest well, 35, was conducted in 2021. The District's wells are considered most vulnerable to the following activities: septic systems, transportation corridors, above and below ground storage tanks, gas stations and military installations. All district wells received a moderate susceptibility rating.

The geology of the Indian Wells Valley does not make it possible to locate wells in a confined aquifer, so our wells cannot receive the lowest rating. Nevertheless, district wells conform to the highest standards and typically received the full amount of points possible on the assessment. You can review all water assessment reports by contacting Renee Morquecho, Chief Engineer, at (760) 375-5086.

“When the well is dry, we know the worth of water.”
—Benjamin Franklin

Community Participation

You are invited to participate during our 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.

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.

BY THE NUMBERS

5.1
TRILLION

The dollar value needed to keep water, wastewater, and stormwater systems in good repair.

1.7
TRILLION

The gallons of drinking water lost each year to faulty, aging, or leaky pipes.

47.5
TRILLION

The amount in gallons of water used to meet U.S. electric power needs in 2020.

2

How often in minutes a water main breaks.

12
THOUSAND

The average amount in gallons of water used to produce one megawatt-hour of electricity.

33

The percentage of water sector employees who will be eligible to retire by 2033.

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 12 water storage tanks with a total storage capacity of 19 million gallons. From there, water is delivered by gravity through the distribution lines to the customers.

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. EPA and the State Water Resources Control Board (SWRCB) 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.



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. Although *E. coli* was detected, the water system is not in violation of the *E. coli* maximum contaminant level (MCL).

The state recommends monitoring 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)	2023	10	0.004	0.70	ND–7.5	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2023	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	0.87	0.29–1.78	No	Drinking water disinfectant added for treatment
Coliform Assessment and Corrective Action Violations (percent positive samples)	2023	TT	NA	8.57	NA	No	NA
Fluoride (ppm)	2023	2.0	1	0.73	0.39–1.4	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2022–2023	15	(0)	1.3	ND–5.5	No	Erosion of natural deposits
HAA5 [sum of 5 haloacetic acids]–Stage 1 (ppb)	2023	60	NA	0.8	ND–1.6	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2023	10	10	1.03	ND–1.9	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2023	80	NA	6.35	ND–12.7	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 (ppm)	2023	500	NS	76.1	19–230	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2023	300	NS	23.3	ND–110	No	Leaching from natural deposits; industrial wastes
Specific Conductance (µmho/cm)	2023	1,600	NS	538	320–980	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2023	500	NS	41	24–53	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2023	1,000	NS	323	190–550	No	Runoff/leaching from natural deposits



UNREGULATED SUBSTANCES¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (ppm)	2023	108.1	51–150	NA
Boron (ppb)	2023	708	170–1,800 ²	NA
Calcium (ppm)	2023	23.2	5.2–39	NA
Carbonate (ppm)	2023	9.1	ND–32	NA
Hardness, Total [as CaCO ₃] (ppm)	2023	74	13–130	NA
Magnesium (ppm)	2023	3.4	ND–8.9	NA
pH (units)	2023	8.2	7.6–8.9	NA
Potassium (ppm)	2023	2.1	1.0–3.1	NA
Sodium (ppm)	2023	89.1	42–190	NA
Total Alkalinity (ppm)	2023	103.7	81–130	NA
Vanadium (ppb)	2023	12.4	ND–45	NA

¹ Unregulated contaminant monitoring helps U.S. EPA and the SWRCB determine where certain contaminants occur and whether the contaminants need to be regulated.

² District Wells 9A, 11, and 13 contained boron concentrations of 1,800, 1,300, and 1,100 ppb, respectively, in 2023.

Level 2 Assessment Update

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct an assessment to identify and correct any problems.

We were required to complete a Level 2 assessment because we found *E. coli* in a water sample. No corrective actions were required. It was determined that the presence of *E. coli* was most likely due to the sampling procedure. We implemented several recommendations by the state to improve our sampling procedure.

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 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred or why total coliform bacteria have been found in our water system on multiple occasions.

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.

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

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

