

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2013. 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 to assist you should you ever have any questions or concerns about your water.



Indian Wells Valley Water District

PWS ID#1510017
500 W. Ridgecrest Blvd.
Ridgecrest, CA 93555

Community Participation

You are invited to participate at our Board of Directors meetings and voice your concerns about your drinking water. We meet the second Monday of each month, beginning at 7 p.m., in our Board Room, 500 W. Ridgecrest Blvd., Ridgecrest, CA.

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.

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

Indian Wells Valley WATER DISTRICT

PWS ID#1510017



2013 Annual Drinking Water Quality Report

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2013 Annual Drinking Water Quality Report

Where Do We Get Our Drinking Water?

The Indian Wells Valley Water District serves approximately 30,000 people through approximately 12,000 connections in Ridgcrest and the surrounding areas. Our water supply comes from 10 wells that draw water from the Indian Wells Valley Aquifer. Water is pumped from these wells through transmission lines to eleven water storage reservoirs with a storage capacity of 17 million gallons. From there, water is delivered by gravity through the distribution lines to the customer.

Source Water Assessment

The California Department of Public Health (CDPH) conducted Source Water Assessments for all drinking water sources across the state. The purpose of the assessments was to determine the susceptibility of each drinking water source to potential contaminant sources and to establish a high, moderate, or low relative susceptibility rating for each source. A high rating indicates the lowest susceptibility to contamination.

The Source Water Assessment for the Indian Wells Valley Water District was conducted in 2002, except for Well 34, which was conducted in 2008. All District wells received a moderate susceptibility rating. This rating is not an implication of water quality, but it signifies a well's potential to become contaminated. The highest scores are given to those wells located in confined aquifers. A confined aquifer is relatively protected from surface contamination because of a confining layer above the aquifer, usually composed of clay or other impermeable material. The geology of the Indian Wells Valley does not make it possible to locate our wells in confined aquifers. Nevertheless, District wells conform to the highest standards and typically received the full amount of possible points given by the CDPH.

The complete Source Water Assessment report is available at the Indian Wells Valley Water District. If you have questions about the assessment or would like a copy, please contact Renee Morquecho, Chief Engineer, at (760) 375-5086.

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 California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations

also establish limits for contaminants in bottled water that must 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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- (E) Radioactive contaminants, which can be naturally occurring or 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.

All Drinking Water May Contain Contaminants

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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>.

Lead and Drinking Water

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. Indian Wells Valley Water District 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/safewater/lead>.

Arsenic in Drinking Water

While your drinking water meets the federal and state standard for arsenic, 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.



2013 Sampling Results

PWS ID#1510017

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows 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)	Year Sampled	Violation Yes/No	MCL [MRDL]	PHG (MCLG) [MRDLG]	Average Detected	Range	Typical Source
Arsenic (ppb)	2013	No	10	0.004	3.2	ND-8.7	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2013	No	[4.0]	[4.0]	0.63	0.31-0.95	Drinking water disinfectant added for treatment
TTHM [Total Trihalomethanes] (ppb)	2013	No	80	N/A	2.7	ND-5.8	By-product of drinking water disinfection
Haloacetic Acids (ppb)	2013	No	60	N/A	ND	ND	By-product of drinking water disinfection
Fluoride (ppm)	2012	No	2.0	1.0	0.75	0.4-1.4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as NO ₃ (ppm)	2013	No	45	45	5.9	ND-7.7	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite as N (ppm)	2011-2012	No	10	10	1.3	ND-2.7	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	2006-2013	No	15	(0)	4.0	ND-6.3	Erosion of natural deposits
Uranium (pCi/L)	2006	No	20	0.43	3.1	ND-6.1	Erosion of natural deposits

TAP WATER SAMPLES							
Substance (Unit)	Year Sampled	Violation Yes/No	AL	PHG	Amount Detected (90th percentile)	Sites Above AL/ Total Sites	Typical Source
Copper (ppm)	2012	No	1.3	0.3	0.05	0	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2012	No	15	0.2	ND	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

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

SECONDARY SUBSTANCES							
Substance (Unit)	Year Sampled	Violation Yes/No	MCL	PHG	Average Detected	Range	Typical Source
Chloride (ppm)	2011-2012	No	500	NA	63	16-200	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (micromhos) (µS/cm)	2011-2012	No	1600	NA	503	300-920	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2011-2012	No	500	NA	38	24-51	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2011-2012	No	1000	NA	308	190-510	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES					
Substance (Unit)	Year Sampled	MCL	PHG	Average Detected	Range
Bicarbonate (ppm)	2011-2012	NA	NA	121	88-160
Boron ¹ (ppb)	2011-2012	NA	NA	621	200-1,300
Calcium (ppm)	2011-2012	NA	NA	24	4.2-43
Hardness (ppm)	2011-2012	NA	NA	64	9.6-110
Magnesium (ppm)	2011-2012	NA	NA	2.3	ND-5.9
pH (units)	2011-2012	NA	NA	8.2	7.6-8.8
Potassium (ppm)	2011-2012	NA	NA	1.5	ND-2.4
Sodium (ppm)	2011-2012	NA	NA	92	41-180
Total Alkalinity (ppm)	2011-2012	NA	NA	110	92-140
Vanadium ² (ppb)	2011-2012	NA	NA	17	ND-71

1. The Notification Level for boron is 1,000 ppb. Analysis of samples from District wells 9A, 10, 11, and 13 detected boron concentrations of 1,300, 1,200, 1,200 and 1,000 ppb, respectively, in 2011.
2. The Action Level for vanadium is 50 ppb. Analysis of sampling from District well 17 detected a vanadium concentration of 71 ppb in 2011.

Definitions

In the table above, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

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

Initial Distribution System Evaluation (IDSE) – an important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known

or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level or 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 or 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.

NA – not applicable

Nephelometric Turbidity Unit (NTU) – measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ND (Not Detected) – indicates that the substance was not found by laboratory analysis.

NS – no standard

Parts Per Million (ppm) or Milligrams Per Liter (mg/l) – one part by weight of analyte to 1 million parts by weight of the water sample.

Parts Per Billion (ppb) or Micrograms Per Liter ($\mu\text{g/l}$) – one part by weight of analyte to 1 billion parts by weight of the water sample.

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.

Picocurie per liter (pCi/L) – measure of the radioactivity in water.

TON (Threshold Odor Number) – a measure of odor in water.

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

$\mu\text{S/cm}$ (microsiemens per centimeter) – a unit expressing the amount of electrical conductivity of a solution.

