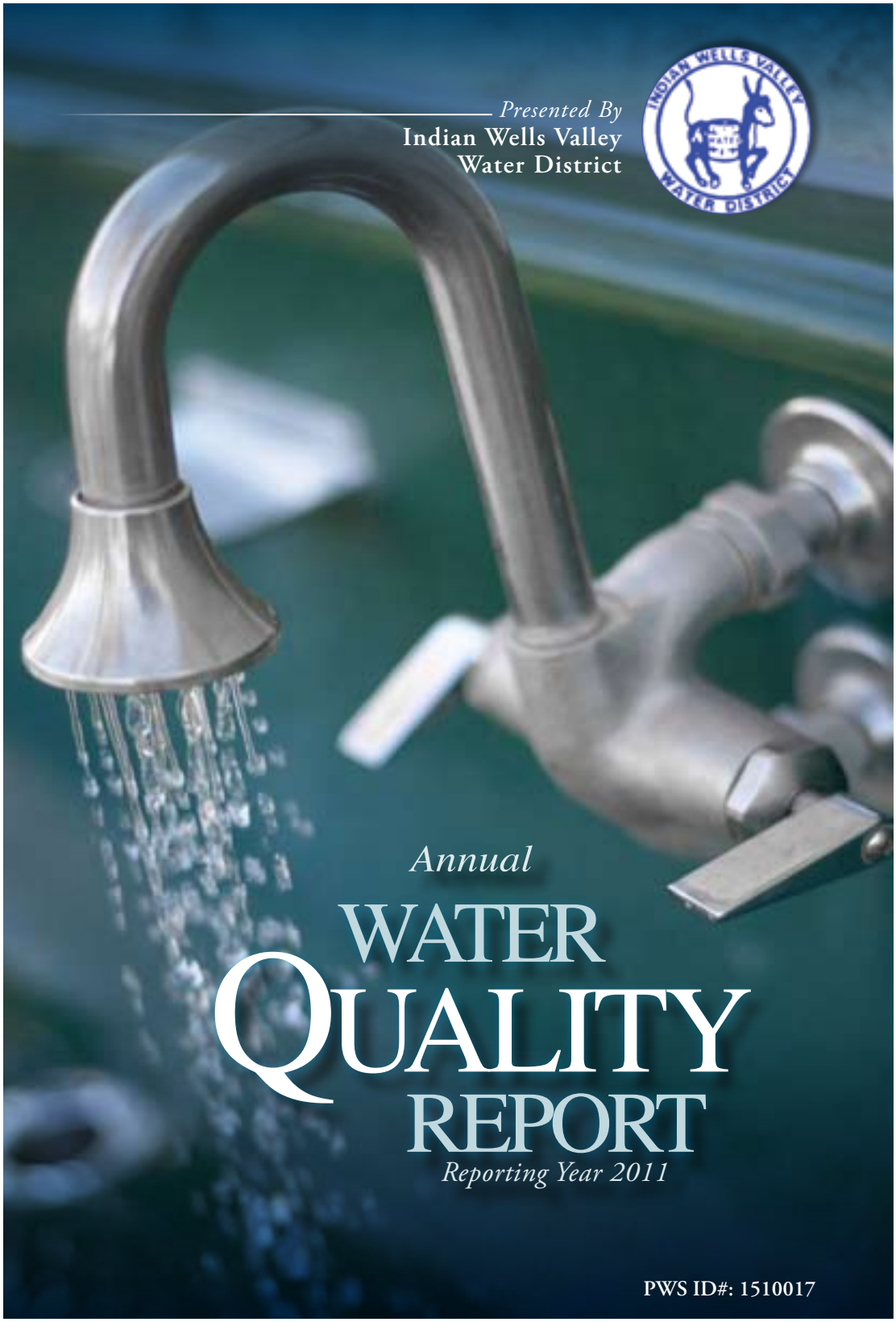
Presented By
Indian Wells Valley
Water District
Annual
WATER
QUALITY
REPORT
Reporting Year 2011
PWS ID#: 1510017

Meeting the Challenge

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2011. 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 share with us your thoughts or concerns about the information in this report. After all, well-informed customers are our best allies.

Bill Payment Options

The Indian Wells Valley Water District offers a variety of bill payment options for your convenience. Although our City Hall payment drop box will be closed after July 1, 2012, the following options are still available to you:

- Mail your bill and pay by check or money order.
- Drop off your bill with a check or money order in the blue drop box located in our parking lot.
- Pay at our office from 8:00 a.m. to 5:00 p.m. (M-F) using cash, check, money order, Visa, or MasterCard.
- Pay by telephone using your Visa or MasterCard.
- Set up Automatic Payment Service so your bill is automatically deducted from your checking account each month. You still receive your paper bill.
- We accept electronic payments from your financial institution's online bill payer system.

Due to numerous customer requests, the Board of Directors is looking at online payment options. We hope to offer this service soon. Please call Customer Service at (760) 375-5086 if you have any questions regarding your payment options.

Do you want a more water efficient landscape but don't know where to begin?

Try a FREE landscape consultation by IWVWD XERIC© Ambassadors to help you get started. Call 760-384-5502 to schedule an appointment.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the 2nd Monday of each month beginning at 7 p.m. in our Board Room, 500 W. Ridgecrest Blvd, Ridgecrest, CA.

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 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.

Fact or Fiction

Tap water is cheaper than soda pop. *(Fact: You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And, water has no sugar or caffeine.)*

Methods for the treatment and filtration of drinking water were developed only recently. *(Fiction: Ancient Egyptians treated water by siphoning water out of the top of huge jars after allowing the muddy water from the Nile River to settle. And, Hippocrates, known as the father of medicine, directed people in Greece to boil and strain water before drinking it.)*

A typical shower with a non-low-flow showerhead uses more water than a bath. *(Fiction: A typical shower uses less water than a bath.)*

Water freezes at 32 degrees Fahrenheit. *(Fiction: You can actually chill very pure water past its freezing point (at standard pressure) without it ever becoming solid.)*

The Pacific Ocean is the largest ocean on Earth. *(Fact: The Atlantic Ocean is the second largest and the Indian Ocean is the third largest.)*

A single tree will give off 70 gallons of water per day in evaporation. *(Fact)*

Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent, according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Furthermore, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to $1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out their Web site at www.nrdc.org/water/drinking/bw/exesum.asp.

Where Does My Water Come From?

The Indian Wells Valley Water District serves approximately 30,000 people through almost 12,000 connections in Ridgecrest 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.

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.

Recent Rate Increase

On February 13, 2012, the Board of Directors approved new rates effective March 1, 2012. There were two main factors driving this increase: the effects of decreased water consumption and increased costs. During the last Cost of Service Study, usage rates for higher water users were increased to promote conservation, to help preserve our only source of fresh water, and help us meet the State's requirement for 20% reduction per capita by the year 2020. While we planned for conservation results, we could not have anticipated consumption would decrease 13% over two years, which significantly reduced anticipated revenues. On top of that, the costs of running a water district have increased. Like everyone else, the District has been affected by rising costs such as for fuel, chemicals, and electricity. To make matters worse, the District took out a $20 million loan, most of which was used to construct two arsenic treatment plants required by both Federal and State law. The annual debt service for this bond is $1.4 million, and the operating costs for the arsenic treatment plants are about $600,000 per year. These two costs alone equate to nearly $14 per customer per month.

Before a rate increase was even considered, the Board of Directors took dramatic steps to mitigate rising costs and falling revenues. Last year, 25% of our workforce was laid off and tasks were reassigned, postponed, or eliminated while we made certain that the health and safety needs of the community are still met. Despite these efforts, the revised budget for the 2011-12 fiscal year still had a $1 million deficit, so total fixed charges were increased by 50% to ensure that revenue requirements are met even when water usage decreases. To help offset the increased fixed charges, the usage charges for low use (Tiers 1 through 3) were decreased an average of 30%.

I hope this information has been helpful in explaining the reasons that prompted the rate changes and assuring you that the Board of Directors is working hard to keep costs as low as possible. If you have any questions or concerns about your water bill, contact Customer Service at (760) 375-5086.

Who uses the most water?

On a global average, most freshwater withdrawals—69 percent—are used for agriculture, while industry accounts for 23 percent and municipal use (drinking water, bathing and cleaning, and watering plants and grass) just 8 percent.

How much water does a person use every day?

The average person in the U.S. uses 80 to 100 gallons of water each day. During medieval times, a person used only 5 gallons per day.

Should I be concerned about what I'm pouring down my drain?

If your home is served by a sewage system, your drain is an entrance to your wastewater disposal system and eventually to a drinking water source. Consider purchasing environmentally friendly home products whenever possible, and never pour hazardous materials (e.g., car engine oil) down the drain. Check with your health department for more information on proper disposal methods.

How long does it take a water supplier to produce one glass of water?

It can take up to 45 minutes to produce a single glass of drinking water.

How much emergency water should I keep?

Typically, 1 gallon per person per day is recommended. For a family of four, that would be 12 gallons for 3 days. Humans can survive without food for 1 month, but can only survive 1 week without water.

Where does a water molecule spend most of its time on Earth?

In a 100-year period, a water molecule spends 98 years in the ocean, 20 months as ice, about 2 weeks in lakes and rivers, and less than a week in the atmosphere.

How many community water systems are there in the U.S.?

About 53,000 public water systems across the United States process 34 billion gallons of water per day for home and commercial use. Eighty-five percent of the population is served by these systems.

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 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:

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.

Naturally Occurring Bacteria

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us: in our food, on our skin, in our bodies, and in the air, soil, and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested many water samples for coliform bacteria. Federal regulations now require that public water that tests positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliform are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliform to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.

New Arsenic MCL

Beginning in October 2008, the District was in violation of the new arsenic MCL for Wells 9A and 13. We were in violation of the same MCL for Well 10 during the 2nd and 3rd quarters of 2011. The District has been sending quarterly notices to all customers advising them of the violation and the latest results from water quality testing. Construction of treatment facilities that reduce the amount of arsenic in Wells 9A, 10, 11, and 13 was completed August 1, 2011. It is important to note that no water above the MCL has been served from any District well since August 1, 2011. Since compliance with the MCL is based on the Running Annual Average (RAA), the District continues to send quarterly notices to customers until the RAA is below 10.5 ppb.

Some people who drink water containing arsenic in excess of the EPA's MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

Sampling Results

As required by CDPH, we regularly sample our water to determine the presence of any biological, inorganic volatile organic, synthetic organic, or radioactive substances. The tables below show only those substances that were detected. The state requires us to monitor for certain samples less often than once a 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(s) in which samples were taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	**2010, 2011**	**10**	**0.004**	**20.2**	**ND–41**	**Yes**	**Erosion of natural deposits; runoff from orchards; glass and electronics production wastes**
Chlorine (ppm)	2011	[4.0 (as Cl2)]	[4 (as Cl2)]	0.66	0.13–0.98	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2007, 2011	2.0	1	0.75	0.40–1.4	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2006–2011	15	(0)	2.2	ND–6.4	No	Erosion of natural deposits
Nitrate [as nitrate] (ppm)	2011	45	45	5	ND–12	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite (as N) (ppm)	2007, 2011	10	10	1.3	ND–2.7	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Uranium (pCi/L)	2006	20	0.43	3.1	ND–6.1	No	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)	2007, 2011	500	NS	63.1	16–200	No	Runoff/leaching from natural deposits; seawater influence
Specific Conductance (µS/cm)	2007, 2011	1,600	NS	501	300–920	No	Substances that form ions when in water; seawater influence
Total Dissolved Solids (ppm)	2007, 2011	1,000	NS	309	190–570	No	Runoff/leaching from natural deposits

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Bicarbonate (ppm)	2007, 2011	121	88–160
Boron[1] (ppb)	2007, 2011	616	200–1,300
Calcium (ppm)	2007, 2011	24	4.2–43
Magnesium (ppm)	2007, 2011	2.4	ND–6.3
pH (Units)	2007, 2011	8.2	7.2–8.8
Potassium (ppm)	2007, 2011	1.6	ND–2.8
Sodium (ppm)	2007, 2011	92	41–180
Sulfate (ppm)	2007, 2011	38	24–51
Total Alkalinity (ppm)	2007, 2011	111	92–140
Total Hardness (ppm)	2007, 2011	65.1	9.6–120
Vanadium[2] (ppb)	2007, 2011	16.8	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, 1,100, 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

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

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

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).