

# BIGHORN-DESERT VIEW WATER AGENCY

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## Consumer Confidence Report Year-Ending 2010

***Last year, as in years past, your tap water met all EPA and State drinking water health standards. Bighorn-Desert View Water Agency watchfully safeguards your water supplies. The Department of Health Services mandated sampling for Gross Alpha and Uranium compliance in three wells. After a year of sampling, we are proud to report no violations of a maximum contaminant level or secondary water quality standard in 2010. We are confident all wells can be safely operated in 2011 but plans must be made to enable response to the elevated levels of Gross Alpha and Uranium if required in the future.***

### EDUCATION 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791 or visit their website at <http://www.epa.gov/ow/>

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons include persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders. 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 appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

### POSSIBLE CONTAMINANTS

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 human activity.

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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants that can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, U.S. Environmental Protection Agency (USEPA) 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.

*No habla ingles? Este informe contiene informacion muy importante sobre su agua potable.  
Traduscalo o hable con alguien que lo entienda bien. Llame 760-364-2315*

## WATER QUALITY ANALYSIS RESULTS

Bighorn-Desert View Water Agency operates eight ground water wells in the Ames-Means Valley Groundwater Basin and Johnson Valley Groundwater Basin serving a 45-square mile area encompassing the communities of Flamingo Heights, Landers, and Johnson Valley. Last year, we conducted testing for many constituents. This report shows the results of our monitoring for the period of January 1 – December 31, 2010. The table on the following page shows the actual test results of your drinking water and compares them with constituents level limits and goals set by the Environmental Protection Agency to ensure your tap water is safe. Some of the constituents in this list 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 informational purposes 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.

### AN EXPLANATION OF UNITS OF MEASURE USED IN THIS REPORT

**Parts per million (ppm)** - A measurement of the concentration of a substance roughly equivalent to one second in 11.5 days.

**Parts per billion (ppb)** - A measurement of the concentration of a substance roughly equivalent to one drop in 14,000 gallons.

**Picocuries per liter (pCi/L)** - A measure of radioactivity.

**ND** - Not detectable at testing limit.

### IMPORTANT DEFINITIONS

**No Standard (NS)**- No set standard.

**Maximum Contaminant Level (MCL)** - The highest level of a contaminant that 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.

**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** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. 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.

**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.

### HEALTH EFFECTS

**Fluoride** - Some people who drink water, containing fluoride in excess of the federal 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.

**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.

**Nitrate+Nitrite as Nitrogen** - Infants below the age of six months who drink water-containing nitrite in excess of the MCL may quickly become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blueness of the skin.

**Uranium** - Some people who drink water over many years containing uranium in excess of the MCL may have kidney problems or an increased risk of getting cancer.

**Gross Alpha** - 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.

**Lead** - 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/safewater/lead>.

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

Bighorn-Desert View Water Agency operates two separate water systems. Table "A" are test results from Wells 2, 3, 4, 6, 7, 8, and 9 from the Flamingo Heights-Landers area. Table "B" are results from the Agency's stand-alone system, Well 10 in the Johnson Valley area used for bulk hauling only.

Table "A" CONSTITUENTS (YEAR SAMPLED)	STATE MAXIMUM CONTAMINANT LEVEL	PUBLIC HEALTH GOAL OR MCLG	BDVWA AVERAGE RESULTS	BDVWA RANGE OF RESULTS	VIOLATION
<b><u>General Mineral, Physical &amp; Inorganic Chemical Analysis</u></b>					
<b>Total Dissolved Solids</b> (2010) <i>Runoff/leaching from natural deposits (&lt;500 mg/L is an indicator of good overall water quality)</i>	1000 mg/L	NS	297 mg/L	230–350 mg/L	No
<b>Arsenic</b> ('09&'10) <i>Major sources- Natural occurring organic materials</i>	10 ppb	0.004 ppb	1.5 ppb	0 – 4.4 ppb	No
<b>Fluoride</b> (2010) <i>Major sources- Erosion of natural deposits, discharge from fertilizer</i>	2.0 ppm	1	.78 ppm	.70 – .94 ppm	No
<b>Copper</b> (2010) <i>Major sources – erosion of natural deposits</i>	1300 ppb	300 ppb	ND ppb	ND ppb	No
<b>Nitrate</b> (2010) <i>Major sources- Leaching from septic tanks, erosion of natural deposits</i>	45 ppm	45 ppm	7.8 ppm	6.5 – 11 ppm	No
<b>Nitrate+Nitrate as Nitrogen</b> ('08 & '10) <i>Major sources- Leaching from septic tanks, erosion of natural deposits</i>	10 ppm (as N)	NS	1.7 ppm	1.5-2.0 ppm	No
<b>Hardness</b> (2010) <i>Major sources- Dissolved calcium, magnesium, strontium, ferrous iron &amp; manganese</i>	NS	NS	126 ppm	59 - 190 ppm	No
<b>Sodium</b> (2010) <i>Major sources- Generally naturally-occurring salt present in water</i>	NS	NS	56 ppm	49 – 79 ppm	No
<b>Perchlorate</b>	6 ug/L	6 ug/L	ND	0 ug/L	No
<b>Disinfectant ADD LANGUAGE</b> – Drinking water disinfectant added for treatment.	4.0 ppm (as Cl <sub>2</sub> )	4.0 ppm (as Cl <sub>2</sub> )	0.45	0.27 – 0.65	
<b><u>Disinfection byproducts Analysis</u></b>					
<b>Total Trihalomethanes (TTHM)</b> (4Quarters '08 & '09) <i>Major sources- By-product of drinking water chlorination</i>	80 ppb	NS	5.2 ppb	1.3 – 15.5 ppb	No
<b>Total Haloacetic Acid (HAA5)</b> (4Quarters '08 & '09) <i>Major sources- By-product of drinking water chlorination</i>	60 ppb	NS	0.5 ppb	0 – 2.3 ppb	No
<b><u>Unregulated Contaminants Analysis</u></b>					
<b>Boron</b> (2010) <i>Major sources- Erosion of natural deposits</i>	NS	Notification level 1 ppm	0.09 ppb	0 – .15 ppb	No
<b>Vanadium</b> (2010) <i>Major sources- Erosion of natural deposits</i>	NS	Notification level 0.05 ppm	0.0129 ppm	0.008 – 0.02 ppm	No
<b><u>Radioactivity Analysis</u></b>					
<b>Uranium</b> (2010) – <i>Major sources – Erosion of natural deposits</i>	20 pCi/L	0.43 pCi/L	4 pCi/L	3.8 – 17 pCi/L	No
<b>Gross Alpha</b> (2010) – <i>Erosion of natural deposits</i>	15 pCi/L	0 pCi/L	17 pCi/L	5.8 - 20	No

<b>Table "B"</b> <b>CONSTITUENTS (YEAR SAMPLED)</b> <b>(Well 10)</b>	<b>STATE MAXIMUM CONTAMINANT LEVEL</b>	<b>PUBLIC HEALTH GOAL OR MCLG</b>	<b>BDVWA Well 10 AVERAGE RESULTS</b>	<b>BDVWA RANGE OF RESULTS</b>	<b>VIOLATION</b>
<b><u>General Mineral, Physical &amp; Inorganic Chemical Analysis</u></b>					
<b>Total Dissolved Solids</b> (2008) - <i>Runoff, leaching from natural deposits</i>	1000 mg/L	NS	350 mg/L	350 mg/L	No
<b>Arsenic</b> (2008) <i>Major sources- Natural occurring organic materials</i>	10 ppb	4 ppb	3.3 ppb	3.3 ppb	No
<b>Fluoride</b> (2008) <i>Major sources- Erosion of natural deposits, discharge from fertilizer</i>	2.0 ppm	1	0.70 ppm	0.68 - 0.71 ppm	No
<b>Nitrate</b> (2010) <i>Major sources- Leaching from septic tanks, erosion of natural deposits</i>	45 ppm	45 ppm	6.3 ppm	5.1 – 7.5 ppm	No
<b>Nitrate+Nitrate as Nitrogen</b> (2008) <i>Major sources- Leaching from septic tanks, erosion of natural deposits</i>	10 ppm (as N)	NS	1.3 ppm	1.3 ppm	No
<b>Iron</b> (2009) – <i>Leaching from natural deposits</i>	NS but Secondary MCL is 300 ppb	NS	317 ppb	0 - 590 ppb	No
<b>Hardness</b> (2008) <i>Major sources- Dissolved calcium, magnesium, strontium, ferrous iron &amp; manganese</i>	NS	NS	70 ppm	70 ppm	No
<b>Sodium</b> (2008) <i>Major sources- Generally naturally-occurring salt present in water</i>	NS	NS	97 ppm	97 ppm	No
<b><u>Unregulated contaminants</u></b>					
<b>Boron</b> (2008) <i>Major sources- Erosion of natural deposits</i>	NS	Notification level 1 ppm	0.18 ppm	0.18 ppm	No
<b>Vanadium</b> (2008) <i>Major sources- Erosion of natural deposits</i>	NS	Notification level 0.05 ppm	0.02 ppm	0.02 ppm	No
<b>Chromium, hexavalent</b> (2003) <i>Steel &amp; pulp mill discharges, chrome plating, natural erosion</i>	NS	NS	2.6 ppb	Not Applicable	No
<b>Disinfectant ADD LANGUAGE</b> Drinking water disinfectant added for treatment.	4.0 ppm (as Cl <sub>2</sub> )	4.0 ppm (as Cl <sub>2</sub> )	0.47	0.32 – 0.89	
<b><u>Disinfection Byproducts Analysis</u></b>					
<b>Total Trihalomethane (TTHM)</b> (4Quarters '08 & '09) <i>By-product of drinking water chlorination</i>	80 ppb	NS	2.2 ppb	1.3 – 3.0 ppb	No
<b>Total Haloacetic Acid (HAA5)</b> (4Quarters '08 & '09) – <i>By-product of drinking water disinfection</i>	60 ppb	NS	ND	ND	No

## SOURCE WATER ASSESSMENT

A drinking water source assessment was completed for Wells 2, 3, 4, 6, 7, 9, and 10 of the Bighorn Desert View Water Agency water system in December 2002. These wells are considered susceptible to septic leachate and erosion of natural deposits. You may request a summary of the assessment be sent to you by contacting Faraz Asad at the California Department of Public Health at 909-383-4312.

A complete list of all Public Health Goals (PHG's) and Maximum Contaminant Levels (MCL's) can be located on-line at <http://www.cdph.ca.gov/certlic/drinkingwater/Documents/MCLreview/MCLs-DLRs-PHGx.xls> .

### TAP MONITORING FOR LEAD

23 sites sampled in 2010      Regulatory Action Level - 15 ppb      No sites exceeded the Action Level  
Detection Limit for Reporting = 5 ppb      90<sup>th</sup> Percentile – 2.6      No violation

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/safewater/lead>.

### TAP MONITORING FOR COPPER

23 sites sampled in 2010      Regulatory Action Level - 1300 ppb      No sites exceeded the Action Level  
Detection Limit for Reporting = 50 ppb      90<sup>th</sup> Percentile = 175 ppb      No violation

*Likely sources are corrosion from home plumbing, erosion of natural deposits  
and leaching from wood preservatives*

Lead and Copper scheduled to be sampled in summer 2013

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791 or visit their website at <http://www.epa.gov/ow/>.

## BOARD OF DIRECTORS

President	Terry Burkhart
Vice President	Larry Coulombe (resigned 5/2011)
Member	David Larson
Member	Michael McBride
Member	Judy Corl-Lorono

**Our regular Board of Directors Meetings** are held on the fourth Tuesday of each month at 6 PM at 1720 Cherokee Trail, Landers, CA 92285. Committees and Special Meetings occur throughout the year. The public is welcome to attend. To confirm meeting dates, times, locations or agendas, please visit our website @ [www.bdvwa.org](http://www.bdvwa.org) or contact Lynda Tompkins, Executive Secretary at 760-364-2315.



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# Consumer Confidence Report

## Issue for Year-Ending 2010

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