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High Valleys Water District

ANNUAL WATER QUALITY REPORT

Consumer Confidence Report for the 2016 reporting period

The water quality report in this packet describes the High Valleys Water District's drinking water sources and quality. This publication conforms to federal and state regulations requiring water utilities to provide detailed information about the water delivered to your home and business. Every effort is taken to present this detailed information in an understandable manner.

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

The High Valleys Water District is located in the San Jacinto Mountains overlooking the Banning/Pass Area. Developed to serve the residents of the Mt. Edna, Twin Pines and Poppet Flats community, the High Valleys Water District is a Special Government Water District that receives its funding from customers, as well as, County Assessments. Having no natural water resource, High Valleys Water District pumps the water purchased from the City of Banning, 8 miles up the mountain through 3 separate booster stations into 3 storage tanks and 40 miles of pipe to deliver this resource to its approximately 224 customers.

The High Valleys Water District does not treat its water as it is delivered already treated from its source; however, the Water District performs monthly water sampling and system testing through an outside laboratory and System analyst to ensure the safety and quality of the water that is being delivered to its customers.

The City of Banning's water is extracted from twenty-one ground water wells throughout the city. The wells are located over the Beaumont, Banning, Banning Water Canyon, Banning Bench, and Cabazon storage units. Additionally, the City may receive water supplies from three wells within the Beaumont storage unit operated jointly by the Beaumont Cherry Valley Water District and the City of Banning.

The City of Banning tests the drinking water quality for many constituents as required by state and federal regulations. Regulations require analysis for approximately 150 regulated and unregulated contaminants. Only contaminants detected in the water supply are listed and all data is from the most recent monitoring completed in compliance with regulations. The State allows for monitoring of certain contaminants less than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year of sample results.

. This report shows the results of monitoring for the period of January 1 – December 31, 2016 and may include earlier monitoring.

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) 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 (FDA) regulations, as well as California State Law, establishes limits for containments in bottled water that provide the same protection for public health.

We are pleased to report that the High Valleys Water District has met most of the requirements set by the USEPA and the SWRCB during the 2016 calendar year. The High Valleys Water District prides itself in delivering the highest quality of water possible. Certified technicians regularly monitor and collect weekly, monthly, quarterly and annual samples in the system to assure that the water quality in the High Valleys Water District's water system meets all regulations. The results of the High Valleys Water District's water analysis as listed herein, demonstrates the District's efforts in providing excellent water quality.

Your tap water was analyzed for Federal & State Drinking Water Health Standards

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts & metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil & gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic & volatile organic chemicals, which are byproducts of industrial processes & petroleum production, and can also come from gas stations, urban water storm runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil & gas production & mining activities.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituents. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

Lead-Specific Language for Community Water Systems: 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. The High Valleys 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 contact the High Valleys Water District.

Summary Information for Contaminants Exceeding or Violation of Monitoring

High Valleys Water District received a citation in 2016 for failing to conduct monitoring for disinfection byproducts (DBPs) during the third quarter of 2016, and for failing to notice the 2015 DBP monitoring violation in the 2015 Confidence Report (CCR) that was due to customers on July 1, 2016. High Valleys Water District has complied with the directives of the citation by providing a revised 2015 CCR to customers in December 2016 and by collecting DBP samples in October 2016.

The High Valleys Water District received a notice of violation for violating the Health and Safety Code, Section 116555 and Sections 64480(a), 64483(a), 64483(c) in that the 2015 Consumer Confidence Report that HVWD made available to customers on July 1st, 2016 did not comply with State Board regulations. A revised CCR containing the required language and information was submitted and then approved by the State Board in November 2016.

Additionally, a citation was issued for violating Section 141.185(d) for failing to notify all customers who participate in the water utility's lead and copper monitoring program of their lead sample results within 30 days of learning of the sample results. The State Water Resources Control Board Division of Drinking Water determined that these errors did not result in a risk to public health; therefore, no additional enforcement action was taken.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA								
Microbiological Contaminants (complete if bacteria detected)	Highest number of Detections	Number of months in violation	MCL		MCLG	Typical Source of Bacteria		
Total Coliform Bacteria	0	0	For systems collecting <40 samples/month, the mcl is 1 positive monthly sample		0	Naturally present in this environment		
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample & a repeat sample detect total coliform & either sample also detects fecal coliform or E. coli		0	Human and animal fecal waste		
TABLE 2 - S	SAMPLINC	RESULT	S SHOWI	NG THE D	ETECTION	OF LEAD & COPPER		
Lead & Copper (complete if lead or copper detected in the last sample set)	Number of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant		
Lead (ppb)	5	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits		
Copper (ppm)	5	0.055	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives		
TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS								
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant		
Sodium (ppm)	2014 - 16	24	6.1 - 51	none	none	Salt present in the water and is generally naturally occurring		
Hardness (ppm)	2014 - 16	140	52 - 250	none	none	Sum of polyvalent cautions present in the water, generally magnesium and calcium, and are usually naturally occurring		

^{*}Any violation of an MCL or AL is asterisked. Additional information of the violation is provided on page 3 in this report

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	2014 - 16	2.11	<2 - 3.9	10	0.004	Erosion of natural deposits; runoff from orchards; glass & electronics production wastes
Chromium 6 (ppb)	2016	10.9	8.2 - 12	10	0.02	Discharge from electrplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufactering facilities; erosion of natural deposits
Fluoride (ppm)	2014 - 16	1	<0.3 - 1.4	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as nitrate, NO ₃) (ppm)	2016	7	<2 - 9.8	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Chlorine (ppm)	2016	0.3	0.2 - 0.37	[4.0 as Cl ₂]	[4.0 as Cl ₂]	Drinking water disinfectact added for treatment
Total Chromium (ppb)	2014 - 16	5.9	0 - 15	50	-100	Discharge from steel & pulp mills and chrome plating; erosion of natural deposits
Total Trihalomethanes (ppb)	2016	9.2	5.9 - 9.5	80		N/A
Haloacetic Acid (ppb)	2016	ND	0	60		N/A
Gross Alpha particle activity (pCi/L)	2014 - 16	1.2	0.121 - 4.24	15	(0)	Erosion of natural deposits
Uranium	2014 - 16	0.97	0.2 - 4.12	0.43	0.43	Erosion of natural deposits

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD							
Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant	
Chloride (ppm)	2014 - 16	8	1.8 - 16	500		Runoff/leaching from natural deposits; seawater influence	
Color (Units)	2014 - 16	0.08	<0.10 - 0.02	1		Naturally-occurring organic materials	
Iron (ppb)	2014 - 16	103	<100 - 150	300		Leaching from natural deposits; industrial wastes	
Specific Conductance (µS/cm)	2014 - 16	379	300 - 600	1600		Substances that from ions when in water; seawater influence	
Sulfate (ppm)	2014 - 16	20	4.9 - 50	500		Runoff/leaching from natural deposits; industrial influence	
Total Dissolved Solids (TDS) (ppm)	2014 - 16	209	150 - 330	1000		Runoff/leaching from natural deposits	
Turbidity (NTU)	2014 - 16	0.12	<0.1 - 0.78	5		Soil runoff	
TABLE 6 - DETECTION OF UNREGULATED CONTAMINENTS							
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level		Health Effects Language	
Alkalinity (ppm)	2014 - 16	151	100 - 220			N/A	
Calcium (ppm)	2014 - 16	37	16 - 59			N/A	
Bicarbonate (mg/L)	2014 - 16	184	130 - 270			N/A	

TABLE 6 (CONTINUED) - DETECTION OF UNREGULATED CONTAMINENTS						
Magnesium (ppm)	2014 - 16	11	27 - 26		N/A	
PH (Std. Units)	2014 - 16	8	7.2 - 8.3		N/A	
Potassium (ppm)	2014 - 16	2	1.3 - 3.6		N/A	

^{*}Any violation of an MCL, MRDL, or TT is asterisked. Additional information for the violation is provided later in this report

KEY TERMS USED IN CHART

Level Detected = average of the City's producing wells (which the District purchases water from)

< = less than $\mathbf{n/a}$ = not applicable

The following are definitions of some of the terms used in this report

<u>Maximum Contaminant Level (MCL):</u> The highest level of a contaminant that's allowed in drinking water. Primarily MCLs are set as close to the PHGs (or MCLGs) as economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water

<u>Maximum Contaminant Level Goal (MCLG):</u> The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs are set by the U.S. Environmental Protection Agency.

<u>Maximum Residual Disinfectant Level (MRDL):</u> The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

<u>Maximum Residual Disinfectant Level Goal (MRDLG):</u> The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

<u>Public Health Goal (PHG):</u> The level of a contaminant in drinking water below which there is no known or expected health risk. PHGs are set by the California Environmental Protection Agency.

<u>Primary Drinking Water Standards (PDWS):</u> *MCLs and MRDLs for contaminants the affect health along with their monitoring and reporting requirements, and water treatment requirements.*

<u>Secondary Drinking Water Standards (SDWS):</u> *MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at MCL levels.*

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

<u>Variances and Exemptions:</u> State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

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

ppm: Parts per million or milligrams per liter (mg/L)

ppb: Parts per billion or micrograms per liter $(\mu g/L)$

ppt: Parts per trillion or nanograms per liter (ng/L)

<u>**pCi/L:**</u> picocuries per liter (a measure of radiation)

ND: Not detectable at testing limit

The sources of drinking water (both tap 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.

Additional General Information on Drinking Water

Drinking water, including bottles 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 USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 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 (1-800-426-4791).

Terms To Know About Your Drinking Water And Water System

Hardness: hardness is mostly calcium and magnesium that cause a mineral deposit on fixtures and dishes. It also causes curdling of soap and increased consumption of soap.

Hardness can leave a chalky residue in ice cubes. In the High Valleys Water District's drinking water, hardness average 123 parts per million parts of water or 8.8 grains of hardness.

Total Dissolved Solids: the total amount of solids in solution (mainly mineral salts) in parts per million parts of water.

Milky Water: air in the water can cause a milky appearance. Water which contains dissolved air is delivered to customers' homes under pressure.

Turning on the faucet releases the pressure, causing air bubbles to appear. Like a carbon dioxide in soft drinks, the tiny air bubbles rise to the surface. Cleaning begins at the bottom of the container and within a couple of minutes, the water is clear.

Particles in Water: The natural hardness of water served by the High Valleys Water District can cause scale deposits in pipes and water heaters that sometimes break loose due to plumbing activities or repair to the transmission and distribution systems. These may appear as particles in your drinking water.

In addition, a natural chemical reaction will cause pipes to corrode and particles may break away into the water. Such particles and scale are not harmful.

Tastes & Odor: Taste and odor problems can affect both hot and cold water. When it comes to taste, some people may dislike the naturally-occurring minerals in water. Newcomers may favor a taste similar to that which they enjoyed before moving to the area.

Other taste problems arise from salty water drawn into the home through older type water softeners.

Taste problems are also caused by in home water filters that are outdated or placed in the sun where algae growth is induced.

Odor usually when water sits undisturbed for an extended period, especially in hot water heaters. Odors are most often noticed by part-time residents or customers who have been away for a weekend or longer.

Upon opening a faucet they detect a slight smell of rotten eggs. It is not a problem of health; but it is unpleasant. When returning home from being away, it is best to run cold water for a few minutes to flush the idle water and with it, the unpleasant odor.

It is also a good idea to flush your hot water heater, especially if you notice a rotten egg odor from the hot water. In fact, the High Valleys Water District recommends a periodic flushing of your hot water heater.

Another case of odor in water is the idle water trapped inside a garden hose. Garden hoses should be drained completely as possible while they are being rolled up and then stored in a shady location.

High Valleys Water District - Water Information

WHAT IS HAPPENING WITH CHROMIUM-6 IN BANNING?

As you are aware, the City of Banning has 21 potable water wells along with three co-owned wells with Beaumont Cherry Valley Water District (BCVWD). In July of 2014, the California State Water Resources Control Board Division of Drinking Water changed the Maximum Contaminant Level (MCL) for Hexavalent Chromium (Cr6) from 50 parts per billion (ppb) to 10 ppb. Nine of the City of Banning's 21 groundwater wells are near or above the MCL set by the State of California. These wells are impacted by naturally occurring Cr6, as well as two co-owned wells with BCVWD. The State Board has granted the City a variance until 2020 to design a plan and implement a treatment process to lower the Cr6 below the state MCL. Because the High Valleys Water District purchases their water from the City of Banning, this also affects its customers.

Chromium is a naturally occurring element found in rock, soil and groundwater. It is the 11th most common element found in the earth's crust. Chromium is present in the environment in two forms: Cr3 and Cr6. Cr6 can be found naturally in the environment, but can also occur as an industrial byproduct from manufacturing processes for stainless steel, chrome plating, dyes, pigments, leather tanning, and wood preserving. Cr6 occurs naturally in Banning due to erosion of local sediments.

The City of Banning contracted with Hazen and Sawyer to develop a Cr6 treatment and compliance study for the city's impacted wells. This study provided the City with 6 different scenarios to decrease the Cr6 concentration in the 9 wells that are effected by the California's new Cr6 standard. Over 40% of Banning's water supply is impacted by

the new Cr6 standard and the most cost effective scenario will cost the City between \$20-\$40 million dollars to construct and implement.

The City's next steps will be to prepare a financial plan to construct the needed treatment facilities. The plan will be made up of rate adjustments, grants and loans.

The State of California has given all water systems until 2020 to comply with the new hexavalent chromium standard.

CONSERVATION

At the regularly scheduled Board meeting held on December 16th, 2015, the Board of Directors voted on water restriction days in order to comply with the mandatory 25% conservation enforced by the State of California. The Board has granted each customer the option of choosing a maximum of 3 days a week for watering purposes. It is advised to avoid watering during the evening due to freezing weather that may break water lines.

PUBLIC PARTICIPATION OPPORTUNITIES

The High Valleys Water District is a non-profit public agency with a five-member council elected by the public. At the regularly scheduled Board of Director's meetings, time is provided for the public to present its concerns and questions. Board meetings start promptly at 3:00pm and are held every third Wednesday of the month at the District's Office, located at 47781 Twin Pines Road, Banning, California, 92220. Customers may also communicate with the District through email at hvwd@msn.com.

For more information: If you have any questions about this report, please contact Curtis Houghton, General Manager, at (951) 849-2612 or shoughton@highvalleyswater.com.

Por Favor: Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

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