Alpaugh Community Services District

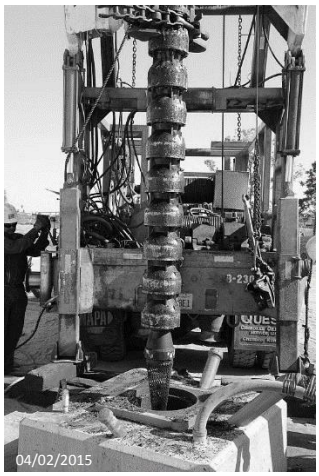
2014 Consumer Confidence Report

Water System Name: Alpaugh Community Services District **Report Date:** June 26, 2015

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2014 and may include earlier monitoring data. **Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o recoja una versión en español en la oficina del distrito.**

Type of water source(s) in use: Groundwater – that is, water from wells rather than surface sources such as lakes or rivers.

Name & location of source(s): Well #1, Well #10 – Well #1 and Well #10 are deep wells drawing water from the "confined" lower part of the local aquifer. This water originates as rain or snow falling mostly on the mountains. It percolates through the ground (that's why it's called "groundwater") until it reaches our wells in Alpaugh. Along the way it picks up various dissolved substances from the mineral formations it travels through.



Lifting out the old bowls

Detaching the old bowls from the pipe string at Well #1.

Although the two wells are less than a mile apart, drawing water at the same depth from the same aquifer, their water quality is somewhat different. Arsenic levels at Well #10 have been consistently around 32 parts per billion (ppb) over the past few years; those at Well #1 are lower and apparently declining over time, at least when the well is in continuous use. Unfortunately, sinking water levels in the aquifer forced us to shut down Well #1 on May 25, 2014. Since then we have been able to use only Well #10 as a water source. We received a USDA grant enabling us to lower the pump "bowls" in Well #1 by 300 feet. That project is now near completion, so Well #1 should be back on line by about the middle of July. The adjacent photos show the removal of the old pump "bowls" from Well #1 on April 2, 2015.

Drinking Water Source Assessment information: A source water assessment was completed in March 2004. The activities to which the Alpaugh water system is most vulnerable include septic systems and agricultural wells. A copy of the complete assessment may be viewed at the ACSD office at 5446 Tule Road, Alpaugh, California.

Time and place of regularly scheduled board meetings for public participation: Second Wednesday of each month, 6:00 p.m. at the ACSD office, 5446 Tule Road.

For more information, contact: John E. Burchard, General Manager **Phone:** (559) 949-8199, (559) 303-9082

Alpaugh water distribution center: 350,000 gallon storage tank (left), chlorine storage tank (center), pump house (right center) and hydropneumatic pressure tank (right). Water from our wells is first chlorinated and pumped into the large storage tank, then pumped as needed into the pressure tank and from there into the distribution pipelines.

TERMS USED IN THIS REPORT	
Maximum Contaminant Level (MCL): 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 are set to protect the odor, taste, and appearance of drinking water.	**Primary Drinking Water Standards (PDWS)**: MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
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 (USEPA).	**Secondary Drinking Water Standards (SDWS)**: MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Public Health Goal (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.	**Treatment Technique (TT)**: A required process intended to reduce the level of a contaminant in drinking water.
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.	**Regulatory Action Level (AL)**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.	**Variances and Exemptions**: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions. **ND**: not detectable at testing limit **ppm**: parts per million or milligrams per liter (mg/L) **ppb**: parts per billion or micrograms per liter (µg/L) **ppt**: parts per trillion or nanograms per liter (ng/L) **ppq**: parts per quadrillion or picograms per liter (pg/L) **pCi/L**: picocuries per liter (a measure of radiation)

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.

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 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resource Control Board, Division of Drinking Water (Division) 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 provide the same protection for public health.

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 constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Division allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants (complete if bacteria detected)	**Highest No. of Detections**	**No. of months in violation**	**MCL**	**MCLG**	**Typical Source of Bacteria**
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper (complete if lead or copper detected in the last sample set)	**No. of samples collected**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (ppb) 08/28/2013	10	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 08/28/2013	10	0.065	0	1.3	0.3	Internal corrosion of household 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**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	12/30/11 (Well #1)	49	49	None	None	Salt present in the water and is generally naturally occurring
	03/07/12 (Well #10)	66	66	None	None	
Hardness (ppm)	12/30/11 (Well #1)	19	19	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
	03/07/12 (Well #10)	32	32	None	None	

Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later 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**
Fluoride (mg/l)	12/30/11 (Well #1)	0.89	0.89	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
	03/07/12 (Well #10)	0.92	0.92	2	1	
Gross alpha (pCi/L)	04/30/13 (Well #1)	2.21	2.21	15	0	Erosion of natural deposits.

Radium 228 (pCi/L)	03/05/13 (Well #10) 12/04/12 (Well #10)	ND 0.804	ND 0.804	15 5	0 0	Erosion of natural deposits.
TTHM Total Trihalomethanes (ppb)	12/18/14	1.6	1.6	80	N/A	By-product of drinking water chlorination.
Haloacetic acids (ppb)	12/18/14	5.7	5.7	60	N/A	By-product of drinking water disinfection.
Arsenic* (ppb)	2014 Well #1 Well #10	5.05 31.75	ND – 11 31 – 33	10 10	0.004 0.004	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A <u>SECONDARY</u> DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Color*	12/30/11 (Well #1) 03/07/12 (Well #10)	25 25	25 25	15 15	None None	Naturally occurring organic material.
Chloride (ppm)	03/07/12 (Well #10)	31	31	500	None	Runoff/leaching from natural deposits; seawater influence.
Total dissolved solids (ppm)	12/30/11 (Well #1) 03/07/12 (Well #10)	160 230	160 230	1000 1000	None None	Runoff/leaching from natural deposits. Substances that form ions when in water; seawater influence.
Specific conductance (µS/cm)	03/05/13	310 (Well #1) 470 (Well #10)	310 470	1600 1600	None None	

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Notification Level**	**Typical Source of Contaminant**
Chlorine (ppm)	2014 (avg. of 22 values)	0.39	0.12 – 0.87	4.0	Drinking water disinfectant added for treatment.

*****_Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report._

Additional General Information on Drinking Water

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 USEPA's Safe Drinking Water Hotline (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).

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. Alpaugh Community Services 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.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	**Explanation**	**Duration**	**Actions Taken to Correct the Violation**	**Health Effects Language**
Arsenic	**Naturally occurring in the ground water**	**Constant**	**The District is working to design and construct an arsenic treatment plant with State funding. [1]**	**Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have increased risk of getting cancer. [2]**
Color	**Naturally occurring in the ground water**	**Constant**	**No action as of yet**	**None [3]**

[1] Under local conditions the available options for reducing arsenic exposure are finding or developing wells with lower arsenic content, or treating our existing well water to remove the arsenic. With funding provided by the State, we have now tested several different arsenic removal technologies, and as part of that project an engineering firm is now in the advanced stages of designing an arsenic removal plant.

[2] Please see the EPA Arsenic factsheet (http://www.epa.gov/ogwdw/arsenic/pdfs/fs_arsenic_justthefactsforconsumers.pdf) for more information, or contact us if you have any questions.

[3] Our system is also over the MCL with respect to color. Color in water is typically caused by naturally occurring organic materials. Color is a "secondary standard" and affects the aesthetics of the water, its pleasant appearance, rather than any health effect. Thus there is no health effects language for secondary standards.