



# UNION PUBLIC UTILITY DISTRICT

June 2017

## 2016 Consumer Confidence Report

*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, 2016 and may include earlier monitoring data.*

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

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. This report shows our water quality and what it means.

The following information is provided in compliance with those requirements established by the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB).

### Water Source

Our water source is surface water from the Stanislaus River that flows through Hunters Reservoir, down the Utica Ditch, and eventually to your water treatment plant.

### Water Treatment

It is the goal of the Union Public Utility District to provide the highest quality water to all customers within the District's service area. Raw water is treated for the removal of harmful micro-organisms through coagulation, filtration, and disinfection. The finished water pH is adjusted for corrosion control and chlorine is utilized for disinfection. No fluoridation is used.

### Monitoring

Monitoring of the water is conducted 365 days a year by skilled, certified water treatment plant operators. Samples collected from supply sources, treatment facilities, and distribution systems throughout our service area are analyzed using state-of-the-art laboratory equipment. Analysis other than for treatment is done by Alpha Analytical Laboratories, Inc. in Elk Grove, California. Samples are collected on an approved EPA and SWRCB monitoring schedule as required.

### Important Things About Your 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 water poses a health risk. More information about contaminants and potential health affects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

### Is Your Water Safe for Everyone?

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 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).

## **Drinking Water Source Water Assessment**

A source water assessment was conducted for Union Public Utility District's Water System's surface water source, the Utica Ditch, in February 2012.

No contaminants have been detected in the water supply; however, the source is considered most vulnerable to the following activities: wastewater treatment plants, mining operations - historic, sewer collection systems, NPDES/WDR permitted discharges, grazing (>5 large animals or equivalent per acre), septic systems - low density (<1/acre), agricultural drainage, and recent burn areas (<10 years).

A copy of the complete assessment is available at the SWRCB, Drinking Water Field Operations Branch, Stockton District Office, 31 E. Channel Street, Room 270, Stockton, California 95202, or from the Union Public Utility District, 339 Main Street, Murphys, CA 95247. You may request a summary of the assessment be sent to you by contacting the District Office at (209) 948-7696, or the Union Public Utility District at (209) 728-3651.

## **Drinking Water Contaminants**

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, reservoirs, springs, and wells. As water travels over the surface of 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or which can be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

## **Lead in Home Plumbing**

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. Union Public Utility 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 <http://www.epa.gov/lead>.

## 2016 Testing Results

The Union Public Utility District routinely monitors for contaminants in your drinking water according to Federal and State regulations. This report shows the results of our monitoring for the period of January 1 – December 31, 2016.

Tables 1, 2, 3, 4, and 5 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 SWRCB 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, may be more than one year old.

**TABLE 1 – SAMPLINE RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA**

Microbiological Contaminants	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
E. coli (Federal Revised Total Coliform Rule)	(from 04/01/16-12/31/16) 0	0	(a)	0	Human and animal fecal waste.

(a) Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.

**TABLE 2 – SAMPLINE RESULTS SHOWING THE DETECTION OF LEAD AND COPPER**

Lead and Copper	Sample Date	No. of samples collected	90th percentile level detected	No. Sites exceeding AL	AL	PHG (MCLG)	Typical Source of Contaminant
Lead (ppb)	09/11/2014	20	5.2 ug/L	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	09/11/2014	20	0.17 mg/L	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	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	01/21/2016	1.8	N/A	None	None	Salt present in the water and is generally naturally occurring.
Hardness (ppm)	01/21/2016	12	N/A	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are naturally occurring.

\*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided below.

**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
Chlorine (ppm)	01/01/2016 To 12/31/2016	Average 0.07	0.02 to 0.38	MRDL = 4.0 as Cl <sub>2</sub>	MRDLG= 4.0 as Cl <sub>2</sub>	Drinking water disinfectant added for treatment
TTHM's [Total Trihalomethanes] (ppb)	2016 8 Samples	Average 65.03 <sup>1</sup> 60.98 <sup>2</sup>	55.10–87.07 53.74–69.84	80	N/A	Byproduct of drinking water disinfection.
Halocetic Acids [HAA5] (ppb)	2016 (4) Per Location (1 Sample per Qtr x 2 = 8 Total)	Average 7.43 <sup>1</sup> 19.35 <sup>2</sup>	4.30–13.00 11.30–33.00	60	N/A	Byproduct of drinking water disinfection.

<sup>1</sup> Site #05100001-901 – 7551 Red Hill Road, Angels Camp, CA

<sup>2</sup> Site #05100001-900 – 310 Six Mile Road, Angels Camp, CA

**TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Color (Units)	01/20/2016	12.0	N/A	15 Units	N/A	Naturally-occurring organic materials
Corrosivity Langelier Index	01/20/2016	8.59	N/A	Non-corrosive	N/A	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water: affected by temperature and other factors
Zinc, ppm	01/20/2016	ND	N/A	5	N/A	Runoff/leaching from natural deposits; industrial wastes
Odor – Threshold (Units)	01/20/2016	ND	N/A	3 Units	N/A	Naturally-occurring organic materials
Specific Conductance (micromhos)	01/20/2016	35	N/A	1,600	N/A	Substances that form ions when in water; seawater influence
Total Dissolved Solids, ppm	01/20/2016	27	N/A	1,000	N/A	Runoff/leaching from natural deposits
Chloride, ppm	01/20/2016	1.1	N/A	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate, ppm	01/20/2016	0.95	N/A	500	N/A	Runoff/leaching from natural deposits; industrial wastes

*\*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided below.*

For Systems Providing Surface Water As A Source Of Drinking Water:

TABLE 6 – SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique <sup>1</sup> (Type of approved filtration technology used)	Direct Filtration
Turbidity Performance Standards <sup>2</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 - Be less than or equal to 0.10 NTU in 95% of measurements in a month. 2 - Not exceed 0.30 NTU for more than eight consecutive hours. 3 - Not exceed 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.09 NTU
The number of violations of any surface water treatment requirements	0

<sup>1</sup> A required process intended to reduce the level of a contaminant in drinking water.

<sup>2</sup> Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

\*Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.

**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.

**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).

**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.

**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.

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

**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.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water

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

**Variations and Exemptions:** SWRCB 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 (ug/L)

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

**ppq:** parts per quadrillion or pictogram per liter (pg/L)

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

**For More Information**

If you have any questions about this report or concerning your water quality, please contact the Union Public Utility District office at 728-3651. We want our valued customers to be informed about their water quality. If you want to learn more, please attend any of our regularly scheduled meetings. District board meetings are held on the third Wednesday of each month at 7:00 p.m. at the District office at 339 Main Street in Murphys, CA.

Thank you for allowing us to continue providing your family with clean, quality water. Union Public Utility District works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please Conserve & Protect Our Most Valuable Asset, Our Water!!!