2015 Consumer Confidence Report

Water System Name: **City of Angels Camp Water System** Report Date: 6/20/2016

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, 2015 and may include earlier monitoring data.

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

Type of water source(s) in use: Surface Water

Name & general location of source(s): A portion of the Stanislaus River flows through Hunters Reservoir, down the Utica Ditch to Ross Reservoir, and finally to the City of Angels Camp Forebay.

Drinking Water Source Assessment information: A source water assessment was conducted for the City of Angels Camp's Water System's source water, the Utica Ditch, from the Angels Treatment Plant to Murphys in May 2006. No contaminants have been detected in the water supply. However, the source is considered most vulnerable to the following activities: Sewer collection systems (Town of Murphys), gas stations, and historic mining operations in the watershed.

A copy of the complete assessment is available at the State Water Resources Control Board, Division of Drinking Water, Stockton District, 31 E. Canal Street, Room 270, Stockton, California, 95202, or from the City of Angels Camp, P.O. Box 667, Angels Camp, CA 95222. You may request a summary of the assessment be sent to you by contacting Bhupinder S. Sahota, District Engineer, at (209) 948-3816, or the City of Angels Camp at (209) 736-2181.

Time and place of regularly scheduled board meetings for public participation: City Council meetings are held at 6:00 PM the first and third Tuesday of each month at the City of Angels Camp Fire Department located at 1404, Vallecito Rd., Angels Camp, CA, 95222.

For more information, contact: Mary Kelly Phone: (209) 736-2181

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 that a water system must follow.

Variances and Exemptions: State Board 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 picogram 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 Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. Table 6 deals with Unregulated Contaminants. No unregulated contaminants were detected so Table 6 was omitted. Table 7 deals with ground water. The city does not utilize ground water so Table 7 was omitted. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board 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)	Sample Date	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	1st round in Jan 2015. 2nd round in July & Aug 2015.	40 each round	1st round 5.0 ppb. 2nd round Non-Detect (ND)	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	1st round in Jan 2015. 2nd round in July & Aug 2015.	40 each round	1st round <0.050 ppm. 2nd round Non-Detect (ND)	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)	1/6/2015	1.7 ppm	N/A	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	1/6/2015	28 ppm	N/A	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**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**
Chlorine (ppm)	1/1/15 to 12/31/15	Average 0.56 ppm	0.37 to 0.99 ppm	4.0 ppm as Cl2	4.0 ppm as Cl2	Drinking water disinfectant added for treatment.
TTHM's (Total Trihalomethanes), ppb	2015 Quarterly 8 samples	Sample site # 1 Average = 75.2 Sample site #2 Average = 76.9	Site # 1 53.9 to 90.3 Site # 2 50.7 to 101.7*	80 ppb	N/A	Byproduct of drinking water disinfection
HAA's (Haloacetic Acids), ppb	2015 Quarterly 8 samples	Sample site # 1 Average = 49.9 Sample site #2 Average = 46.0	Site # 1 22.5 to 69.4 Site # 2 16.0 to 76.3	60 ppb	N/A	Byproduct of drinking water disinfection
Total Organic Carbon (TOC), disinfection byproduct precursors), ppm	2015 Monthly	Avg. Raw 3.01ppm Avg. Treated 2.02 ppm	Raw – 2.50 to 4.14 ppm Treated – 1.80 to 2.46 ppm*	TT	N/A	Various natural and man-made sources

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)	1/6/2015	12	N/A	15	N/A	Naturally occurring organic materials
Corrosivity, Langelier Index	1/6/2015	-2.22 Under-saturated, moderately to highly aggressive	N/A	Non-corrosive	N/A	Under-saturated water has a tendency to remove existing calcium carbonate protective coatings in pipelines and equipment
Zinc ppm	1/6/2015	ND	N/A	5 ppm	N/A	Runoff/leaching from natural deposits, industrial wastes
Odor --- Threshold (Units)	1/6/2015	1.0	N/A	3 Units	N/A	Naturally occurring organic materials
Specific Conductance (micromhos)	1/6/2015	33.6 micromhos	N/A	1,600 micromhos	N/A	Substances that form ions when in water
Total Dissolved Solids (TDS), ppm	1/6/2015	53 ppm	N/A	1,000 ppm	N/A	Runoff/leaching from natural deposits
Chloride, ppm	1/6/2015	1.0 ppm	N/A	500 ppm	N/A	Runoff/leaching from natural deposits
Sulfate, ppm	1/6/2015	1.1 Ppm	N/A	500 ppm	N/A	Runoff/leaching from natural deposits, industrial wastes

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).

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 City of Angels 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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/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**
August 11, 2015: The City was cited for Noncompliance with the Stage 2 Disinfection Byproduct Rule Maximum Contaminant Lever for Trihalomethanes.	The City failed to meet compliance criteria for Trihalomethanes at one of its distribution system sample points.	Samples are taken quarterly and four quarterly samples are calculated as a running annual average. This site was out of compliance for one quarter.	Decreased chlorine dosage, lowered storage tank level to decrease detention time, flushed distribution system, discontinued using chlorine at the plant headworks and pre-filter, and increased coagulant dosage.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
December 22, 2015: The City was cited for Noncompliance of Treatment Technique for the Control of Disinfection Byproduct Precursors (DBPP).	The City failed to meet compliance criteria for the removal of Total Organic Carbon (TOC) at its water treatment plant.	Samples are taken monthly and a running annual average is calculated. The City was cited for the period from October 2014 thru September 2015.	Utilized jar testing to determine optimum coagulant dosage. Implemented jar testing on a twice weekly basis. Evaluated several different coagulants. Based on jar testing, turbidity, and TOC analysis selected a new coagulant that is better suited for current water conditions.	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and Haloacetic Acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique [(a)] (Type of approved filtration technology used)	Surface Water Conventional Filtration
Turbidity Performance Standards [(b)] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.30 NTU in 95% of measurements in a month. 2 – Not exceed 0.50 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	0.184 NTU
Number of violations of any surface water treatment requirements	2 (see above)

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) 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.