

2015 Consumer Confidence Report

Water System Name: Naval Air Station Lemoore Report Date: July 1, 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 and Ground Water

Name & general location of source(s): California Aqueduct delivered through Westland's Water District (WWD) and Naval Air Station Lemoore Admin 07 Well

Drinking Water Source Assessment information: An assessment of water provided by WWD was completed in December 2012. Seventy-four turnouts were evaluated and ten were identified as having potential cross-connections with low risk of contamination. Naval Air Station Lemoore is taking preventative action based on risk. The next Drinking Water Assessment is due in 2017. To view or request a copy of the source water assessment, contact Mr. Frank Mulcahy at the phone number listed below.

For more information, contact: Frank Mulcahy Phone: (559) 998-4157

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.

Variations and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

MRL: Minimum Reportable Level

ND: not detectable at testing limit

NTU: Nephelometric Turbidity Units

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, 6, 7, and 8 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 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.) 4	3*	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In a mo.) 1	0	A routine sample and a repeat sample detect total coliform, and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

* Violation of an MCL. Additional information regarding the violation is provided later in this report.

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	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2014	35	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2014	35	0.3	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

FINISHED WATER Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2015	75	N/A	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2015	130	72 - 130	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

FINISHED WATER Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes (TTHMs) (ppb)	Quarterly 2015	125*	84 - 190	80	None	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5s) (ppb)	Quarterly 2015	17	8 - 31	60	None	Byproduct of drinking water chlorination
Chlorine (as CL ₂) (ppm)	Quarterly 2015	0.94	0.053 - 1.21	[MRDL =4 (as CL ₂)]	[MRDL =4 (as CL ₂)]	Drinking water disinfection added for treatment
Arsenic (ppb)	2015	2.23	ND - 4.1	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Nitrate (as nitrogen, N) (ppm)	2015	0.610	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.

* Violation of an MCL. Additional information regarding the violation is provided later in this report.

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

FINISHED WATER Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2015	120	N/A	500	None	Runoff/Leaching from natural deposits; seawater influence
Sulfate (ppm)	2015	69	N/A	500	None	Runoff/Leaching from natural deposits; industrial wastes
Zinc (ppm)	2015	0.830	N/A	5.0	None	Runoff/Leaching from natural deposits; industrial wastes
Odor – Threshold (Units)	2015	2.0	N/A	3	None	Naturally-occurring organic materials
Turbidity (NTU)	2015	0.096	N/A	5	None	Soil runoff
Total Dissolve Solids (TDS) (ppm)	2015	390	N/A	1000	None	Runoff/leaching from natural deposits
Specific Conductance (uS/cm)	2015	670	N/A	1600	None	Substances that form ions when in water; seawater influence

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

UCMR3 (Unregulated Contaminant Monitoring Rule)					
Chemical or Constituent (Units)	Sample Date	Level Detected	Range of Detections	MRL*	Typical Source of Contaminant
Vanadium (ppb)	Qtrly 2013 & 2014	2.8	2.0 - 4.7	0.2	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Molybdenum (ppb)	Qtrly 2013 & 2014	6.4	1.0 - 18	1.0	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium (ppb)	Qtrly 2013 & 2014	272.5	190 - 360	0.3	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Chromium (total) (ppb)	Qtrly 2013 & 2014	0.32	0.20 - 0.48	0.2	See chromium-6 for use or source information; though the amount measured when analyzing for “total chromium” is the sum of chromium in all of its valence states, the MCL for USEPA current total chromium regulation was determined based upon the health effects of chromium-6
Chromium-6 (ppb)	Qtrly 2013 & 2014	0.25	0.14 - 0.40	0.03	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Chlorate (ppb)	Qtrly 2013 & 2014	576	99 - 1100	20	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide

*MRL: Minimum Reportable Level. Contaminants suspected to be present in drinking water but that do **not** have health-based standards set under the Safe Drinking Water Act (SDWA).

General Information on Water Delivered to You

The type of source water used is a combination of surface water and ground water. The groundwater from the well is all processed through the surface water treatment plant. This Consumer Confidence Report (CCR) provides data for the finished water.

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. Naval Air Station Lemoore 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 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

TABLE 7 – VIOLATION OF AN MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Total Coliform Rule	<p>In July 2015, twenty-seven samples were taken with 4 showing the presence of coliform bacteria. The standard is no more than one sample per month may show the presence of coliform bacteria.</p> <p>In September 2015, twenty-one samples were collected and analyzed with two of those samples showing the presence of coliform bacteria. One of the two coliform positive samples also showed the presence of <i>E. coli</i> bacteria, although not at a frequency in violation of the MCL.</p> <p>In October 2015, twenty-one samples were collected and analyzed with three of those samples showing the presence of coliform bacteria.</p>	3 non-consecutive months (Total Coliform Bacteria)	<p>In July 2015 additional bacteriological sampling/ analyses was conducted and none of the repeats showed the presence of Total Coliform bacteria.</p> <p>In September 2015, additional bacteriological and special speciation bacteriological sampling/ analyses was conducted and none of the repeats showed the presence of Total Coliform or <i>E. coli</i> bacteria.</p> <p>In October 2015, additional bacteriological and special speciation bacteriological sampling/ analyses was conducted and none of the repeats showed the presence of Total Coliform bacteria.</p> <p>The positive coliform results may have been caused by the windborne microbial particles during the windy/dusty weather conditions on the sample collection days.</p>	<p>- Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.</p> <p>- Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.</p>
Stage 2 Disinfection Byproduct Rule	The TTHM quarterly monitoring has shown that our water system exceeded the TTHM MCL locational running annual average at four sample sites for the four quarters of 2015.	4 quarters	Operational changes were initiated to reduce/eliminate TTHMs. The granular activated carbon (GAC) and filter media were replaced in all four filter beds. The Operations & Maintenance Plan will be revised.	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.

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)	Conventional treatment
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 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 0.5 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	0.30 NTU
Number of violations of any surface water treatment requirements	none

(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.