

2013 Consumer Confidence Report

Water System Name: Lemoore Naval Air Station Report Date: June 24, 2014

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, 2013 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): California Aqueduct delivered through Westlands Water District's (WWD) Irrigation Distribution System.

Drinking Water Source Assessment information: An assessment of water provided by WWD was completed in December 2012. Seventy-four turnouts were evaluated, ten were identified as having potential cross-connections, with low risk of contamination. NAS Lemoore is taking preventive corrective action based on risk. The next Drinking Water Assessment is due in 2017. You may view or request a copy of the source water assessment by contacting Mr. De Silva at the phone number listed below.

For more information, contact: K. G. De Silva Phone: (559) 998-1074

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: 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 ($\mu\text{g/L}$)

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 California Department of Public Health (Department) 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 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 Department 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.) 1	0	More than 1 sample in a month.	0	Naturally present in the environment.
Fecal Coliform or <i>E. coli</i>	(In the year) 0	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.
Heterotrophic Plate Count (CFU = Coliform Forming Units)	(In a mo.) 2*	0	More than 1 sample in a month with a detection >500 CFUs	0	Naturally present in the environment.

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)	June 2011	36	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	June 2011	36	1.1	3	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)	09APR13	54	N/A	none	none	Salt present in the water and is generally naturally occurring.
Hardness (ppm)	April 2013	78.5	50 - 104	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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Nitrate (as NO ₃) (ppm)	09APR13	3.3	N/A	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
TTHMs (Total Trihalomethanes) (ppb)	Quarterly 2013	77.5 (RAA)**	52 – 130	80	N/A	Byproduct of drinking water chlorination.
HAA5 (Total Halocetic Acids) (ppb)	Quarterly 2013	17.2 (RAA)**	11 – 24	60	N/A	Byproduct of drinking water chlorination.
Chlorine (ppm)	Weekly 2013	0.49	0 – 1.33	[MRDL = 4 (as CL ₂)]	[MRDL = 4 (as CL ₂)]	Drinking water disinfectant added for treatment.
Control of DBP precursors (TOC – Total Organic Compounds)	Daily 2013	1.68	1.3 – 2.7	TT	TT	Various natural and man-made sources.

** Compliance is determined on a system-wide basis by calculating a running annual average (RAA) of all sampling point averages.

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
Aluminum (ppb)	Daily 2013	87	78 – 96	200	60	Erosion of natural deposits, residue from some surface water treatment processes.
Chloride (ppm)	09APR13	63	N/A	500	N/A	Runoff/leaching from natural deposits, industrial wastes.
Color (Units)	09APR13	1	N/A	15	N/A	Naturally-occurring organic materials.
Odor (Units) (TON – Threshold Odor Number)	09APR13	3	N/A	3	N/A	Naturally-occurring organic materials.
Specific Conductance (umhos/cm)	Daily 2013	510	333 – 873	1600	N/A	Substances that form ions when in water; seawater influence.
Sulfate (ppm)	09APR13	55	N/A	500	N/A	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (TDS) (ppm)	09APR13	280	N/A	1000	N/A	Runoff/leaching from natural deposits.
Turbidity, Laboratory (Units)	09APR13	1.8	N/A	5	N/A	Soil runoff.
Zinc (ppb)	Daily 2013	957	230 – 1560	5000	N/A	Runoff/leaching from natural deposits; industrial wastes.

*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).

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. Lemoore Naval Air Station 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 MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
MCL Reporting Requirement	Explanation	Duration	Actions Taken to Correct Monitoring	Health Effects Language
*Total Coliform Rule	In March 2013, twelve distribution (HPC) samples were taken, with two of those samples showing the presence of coliform bacteria. The standard is no more than one sample per month may show the presence of coliform bacteria.	N/A	Line was flushed and the chlorine was adjusted to maintain adequate disinfection levels.	Inadequately treated water may contain disease-causing organism. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

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 <u>0.3</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>0.5</u> NTU for more than eight consecutive hours. 3 – Not exceed <u>1.0</u> NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.34
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.