



DEPARTMENT OF THE NAVY
COMMANDING OFFICER
NAVAL AIR STATION
700 AVENGER AVENUE
LEMOORE, CALIFORNIA 93246-5001

IN REPLY REFER TO:
11101
Ser N00/473
30 Jun 20

From: Commanding Officer, Naval Air Station Lemoore
To: Lincoln Military Housing Residents

Subj: NAVAL AIR STATION LEMOORE DRINKING WATER

Encl: (1) 2019 Consumer Confidence Report

1. Consumer Confidence Report (CCR) for the installation's drinking water program is attached for your review. The CCR concludes that the drinking water at Naval Air Station Lemoore is safe for consumption.

2. If you have any questions regarding the CCR please feel free to contact Ms. Donna Ogilvie at (559) 998-4078 or at donna.ogilvie@navy.mil.



DOUGLAS M. PETERSON

Copy to:
Lincoln Military Housing Regional Property Manager
Navy Housing Director

2019 Consumer Confidence Report

Water System Name: Lemoore Naval Air Station

Report Date: June 30, 2020

NAS Lemoore is pleased to present to you this year's Consumer Confidence 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, high quality and dependable supply of safe drinking water. Your Public Works Department at NAS Lemoore routinely monitors drinking water quality as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2019 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Lemoore Naval Air Station a 559-998-4078] para asistirlo en español.

这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 Lemoore Naval Air Station 以获得中文的帮助: 559-998-4078

Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa Lemoore Naval Air Station o tumawag sa 559-998-4078 para matulungan sa wikang Tagalog.

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ Lemoore Naval Air Station tại 559-998-4078 để được hỗ trợ giúp bằng tiếng Việt.

Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau Lemoore Naval Air Station ntawm 559-998-4078 rau kev pab hauv lus Askiv.

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

Name & general location of source(s): California Aqueduct delivered through Westland's Water District (WWD) and Lemoore Naval Air Station (NASL) Admin well No. 7

Drinking Water Source Assessment information: NASL performed a watershed sanitary survey (WSS) of their water supply laterals in 2018 and 2019. The findings of the 2018-2019 WSS update are that no structural changes have occurred to supply laterals since the 2012 WSS update report. NASL remains engaged in on-going dialogues with Westland Water District and DDW to reduce and prevent hazards in the watershed.

Time and place of regularly scheduled board meetings for public participation: N/A

For more information, contact: Donna Ogilvie, Installation Environmental Director Phone: (559) 998-4078

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 (U.S. EPA).

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

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): Secondary MCLs (SMCLs) 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.

LRAA: Locational running annual average is a four quarter average at an individual sample location. The LRAA for each location must be less than the MCL. The highest 2019 LRAA detected from all the monitoring locations is reported and compared to the MCL.

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

RAA: Running annual average is a four quarter average of a constituent; the highest 2019 RAA is reported and compared to the MCL.

Variations and Exemptions: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

reflect the benefits of the use of disinfectants to control microbial contaminants.

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)

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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 byproducts 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 U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law 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 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. Any violation of an AL, MCL, MRDL, or TT is asterisked (*). Additional information regarding the violation is provided later in this report.

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 (state Total Coliform Rule) | (In a month) 0 | 0 | 1 positive monthly sample ^(a) | 0 | Naturally present in the environment |
| Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule) | (In the year) 0 | 0 | A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive | | Human and animal fecal waste |
| <i>E. coli</i> (federal Revised Total Coliform Rule) | (In the year) 0 | 0 | (b) | 0 | Human and animal fecal waste |

(a) Two or more positive monthly samples is a violation of the MCL

(b) 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*.

| 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 | No. of Schools Requesting Lead Sampling | Typical Source of Contaminant |
|---|-------------|--------------------------|--|------------------------|-----|-----|---|---|
| Lead (ppb) | SEP 17' | 33 | 0.6 | 0 | 15 | 0.2 | 2 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) | SEP 17' | 33 | 0.3 | 0 | 1.3 | 0.3 | Not applicable | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | MCL | PHG (MCLG) | Typical Source of Contaminant |
|--|-------------|----------------|---------------------|------|------------|--|
| Sodium (ppm) | 4/3/2019 | 22 | 22 | None | None | Salt present in the water and is generally naturally occurring |
| Hardness (ppm) | 4/3/2019 | 55 | 55 | None | None | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected (Average) | Range of Detections | MCL [MRDL] | PHG (MCLG) [MRDLG] | Typical Source of Contaminant |
|--|----------------|-----------------------------|---------------------|------------|--------------------|--|
| Chlorine Residual (as Cl ₂ ; ppm) | 2019 | 1.52 | 1.44-1.52 | 4.0 | 4.0 | Drinking water disinfectant added for treatment |
| Total Trihalomethanes (ppb) | 2019 Quarterly | 62.8 | 9-59 | 80 | N/A | Byproduct of drinking water disinfection |
| Haloacetic Acids (ppb) | 2019 Quarterly | 15.3 | 3.1-18 | 60 | N/A | Byproduct of drinking water disinfection |
| Arsenic (ppb) | 2019 Quarterly | 8.76 | 0-10 | 10 | 0.004 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes |

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | SMCL | PHG (MCLG) | Typical Source of Contaminant |
|--|-------------|----------------|---------------------|------|------------|--|
| Aluminum(ppb) | 4/3/2019 | 230 | 230 | 200 | - | Erosion of natural deposits; residue from some surface water treatment processes |
| Chloride (ppm) | 4/3/2019 | 22 | 22 | 500 | - | Runoff/leaching from natural deposits; seawater influence |
| Color(Units) | 4/3/2019 | 20 | 20 | 15 | - | Naturally-occurring organic materials |
| Iron (ppb) | 4/3/2019 | 320 | 320 | 300 | - | Leaching from natural deposits; industrial wastes |
| Odor(Units) | 4/3/2019 | 2 | 2 | 3 | - | Naturally-occurring organic materials |
| Specific Conductance (uS/cm) | 4/3/2019 | 220 | 220 | 1600 | - | Substances that form ions when in water; seawater influence |
| Sulfate (ppm) | 4/3/2019 | 23 | 23 | 500 | - | Runoff/leaching from natural deposits; industrial wastes |
| Turbidity Raw (NTU) | 4/3/2019 | 4.2 | 4.2 | 5 | - | Soil runoff |
| Total Dissolved Solids (ppm) | 4/3/2019 | 130 | 130 | 1000 | - | Runoff/leaching from natural deposits |

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | Notification Level | Health Effects Language |
|---|----------------------------|---|---|--------------------|-------------------------|
| Vanadium (ppb) -Treated -Distribution | Quarterly 2013 &2014 | Treated 2.5 Distribution 3.0 | Treated 2.0 - 2.8 Distribution 2.2 - 4.7 | N/A | N/A |
| Molybdenum (ppb) -Treated -Distribution | Quarterly 2013 &2014 | Treated 6.9 Distribution 6.0 | Treated 1.6 - 18 Distribution 1.0 - 18 | N/A | N/A |
| Strontium (ppb) - Treated - Distribution | Quarterly 2013 &2014 | Treated 272.5 Distribution 272.5 | Treated 200 - 340 Distribution 190 - 360 | N/A | N/A |
| Chromium (total) (ppb) -Treated -Distribution | Quarterly 2013 &2014 | Treated 0.3 Distribution 0.4 | Treated 0.20 - 0.36 Distribution 0.31 - 0.48 | N/A | N/A |
| Chromium-6 (ppb) -Treated -Distribution | Quarterly 2013 &2014 | Treated 0.2 Distribution 0.3 | Treated 0.14 - 0.30 Distribution 0.24 - 0.40 | N/A | N/A |
| Chlorate -Treated -Distribution | Quarterly 2013 &2014 | Treated 0.2 Distribution 0.3 | Treated 99 - 650 Distribution 510 - 1100 | N/A | N/A |

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 U.S. EPA'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. U.S. EPA/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: 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 installed historically. The Reduction of Lead in Drinking Water Act went into effect on January 4, 2014. The Act has reduced the lead content allowed in water system and plumbing products by changing the definition of lead-free in Section 1417 of the Safe Drinking Water Act (SDWA) from not more than 8% lead content, to not more than a weighted average of 0.25% lead with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and plumbing fixtures. The SDWA prohibits the use of these products in the installation or repair of any public water system or facility providing water for human consumption if they do not meet the lead-free requirement. The installation is also conducting a lead service line inventory requirement and have not yet found any lead service lines as part of our investigation.

Is lead-free certification required for products? As of March 2015, there is no mandatory federal requirement for lead-free product testing or third-party certification under the Safe Drinking Water Act (SDWA).

How can I minimize exposure to lead?

- **Flush.** It is always a good idea to flush your faucet at work and/or at home, especially when water has been sitting for several hours (i.e. overnight or over a weekend). You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes prior to utilizing for consumption. You may need to flush longer if your building has recently been shutdown or experienced reduced occupancy. Contact your Facility Manager or Assistant Public Works Officer for flushing guidance. [**OPTIONAL:** If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.]
- **Use Cold Water.** Hot dissolves lead more quickly than cold water, so use cold water to prepare food and drinks.
- **Clean Your Aerator.** Debris can be trapped on the aerator screens on water outlets containing metals, especially if construction or plumbing work may have occurred in your area. Simply twist off the aerator, tap and clean any debris which may be caught on the filtration screen, and reinstall.
- Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

What about at the Child Development Centers and Youth Centers?

In the U.S., the Environmental Protection Agency (EPA) recommends, but does not require, testing for lead in drinking water in schools and day care centers. However, Navy policy, OPNAV M-5090.1 requires the Lead in Priority Areas (LIPA) testing program in the best interest of all the children, parents, and staff we serve. This sampling is conducted every 5 years at all drinking water outlets. Lemoore Naval Air Station conducted sampling in 2019 at all drinking water fountains and outlets where children and staff have the potential for using water for drinking water consumption and cooking at our Child Youth Program Facilities. Testing results are available at the Commander, Navy Region Southwest Web site at: https://www.cnic.navy.mil/regions/cnrsw/om/environmental_support/water_quality_information.html

Water Complaints

Does the filter on your fountain or faucet need to be changed? Please coordinate with your building monitor or facility manager. Make sure filters are marked with the date they were changed out and keep a log book.

Does your water have an odd taste, color, odor, suspended solids, or water-related illness? Please call the Troubledesk at 619-524-9123 or After Hours Troubledesk at 619-524-9223 with details (i.e. building number, concern, complaint POC).

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 |
| Failure to Monitor | Missed Disinfection Byproduct Precursor Samples: Paired Total Organic Compounds (TOC) and Alkalinity samples | One sample | Increased review of sampling requirements. | 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 Water Systems Providing Groundwater as a Source of Drinking Water

| TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLES | | | | | |
|---|------------------------------------|---------------------|-----------------------|-----------------------------------|--------------------------------------|
| Microbiological Contaminants (complete if fecal-indicator detected) | Total No. of Detections | Sample Dates | MCL [MRDL] | PHG (MCLG) [MRDLG] | Typical Source of Contaminant |
| <i>E. coli</i> | (In the year) 1 | June 11, 2019 | 0 | (0) | Human and animal fecal waste |
| Enterococci | (In the year) 0 | | TT | N/A | Human and animal fecal waste |
| Coliphage | (In the year) 0 | | TT | N/A | Human and animal fecal waste |

**Summary Information for Fecal Indicator-Positive Groundwater Source Samples,
Uncorrected Significant Deficiencies, or Groundwater TT**

| SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLE | | | | |
|---|--------------------|-----------------|---|------------------------------------|
| Resample taken on June 13, 2019 for June 11, 2019 positive sample confirmed an error in sampling. | | | | |
| SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES | | | | |
| No Uncorrected Significant Deficiencies | | | | |
| VIOLATION OF GROUNDWATER TT | | | | |
| TT Violation | Explanation | Duration | Actions Taken to Correct the Violation | Health Effects Language |
| No TT Violations | - | - | - | - |

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. | 99.0% |
| Highest single turbidity measurement during the year: Performance Standards No. 2 & 3 | 0.531NTU, instantaneous and less than eight consecutive hours. |
| 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.

Summary Information for Violation of a Surface Water TT

| VIOLATION OF A SURFACE WATER TT | | | | |
|---------------------------------|-------------|----------|--|-------------------------|
| TT Violation | Explanation | Duration | Actions Taken to Correct the Violation | Health Effects Language |
| No TT Violations | - | - | - | - |

Summary Information for Operating Under a Variance or Exemption

Lemoore Naval Air Station did NOT operate under a Variance or Exemption.

Summary Information for Federal Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct Zero Level 1 assessment(s), and Zero Level 1 assessment(s) were completed. In addition, we were required to take Zero corrective actions and we completed Zero of these actions.

During the past year Zero Level 2 assessments were required to be completed for our water system, and Zero Level 2 assessments were completed. In addition, we were required to take Zero corrective actions and we completed Zero of these actions.

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

No *E. coli* was detected in any samples taken for our water system.