

2019 Consumer Confidence Report

Water System Name: **Pacific Union College**

Report Date: April 8, 2019

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 to December 31, 2019 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse **Pacific Union College** a 205 Highland Oaks Dr, Angwin CA 94508 Phone (707) 965-7150 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 **Pacific Union College** 以获得中文的帮助: 205 Highland Oaks Dr, Angwin CA 94508 Phone (707) 965-7150

Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa **Pacific Union College** o tumawag sa 205 Highland Oaks Dr, Angwin CA 94508 Phone (707) 965-7150 para matulungan sa wikang Tagalog.

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ **Pacific Union College** tại 205 Highland Oaks Dr, Angwin CA 94508 Phone (707) 965-7150 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 **Pacific Union College** ntawm 205 Highland Oaks Dr, Angwin CA 94508 Phone (707) 965-7150 rau kev pab hauv lus Askiv.

Type of water source(s) in use: 4 WellsName & general location of source(s): Wells 3,4,5,6 located on the Pacific Union College CampusDrinking Water Source Assessment information: Available at Facilities Management, Dale Wither's Office.

This was completed in October of 2001 for our Water System. We update this as land use changes around the wells. The Vulnerability Summary showed us most vulnerable for the following activities for each well as follows:

Well #3- Grazing, Sewer Collections Systems, Historic Gas Stations**Well #4-** Farm Machinery Repair, Grazing, NPDES/WDR Permitted Discharges, Photo Process Printing, Sewer Collection Systems, Historic Gas Stations**Well #5-** Grazing Sewer Collection Systems**Well #6-** Airports- Maintenance/Fueling Areas, Vineyards

We will be glad to go over any questions that you might have on this or let you review the full report

Time and place of regularly scheduled board meetings for public participation: We do not have any board meetings
but we are always available for public comment.

For more information, contact: Dale Withers dwithers@puc.eduPhone: (707) 965-7150

This information can also be viewed on the Pacific Union College Website at the following URL:

<http://www.puc.edu/campus-services/facilities-management/ccr>

We are also able to email you this information in the future should you misplace this copy or need an extra.

If you do not use email, you can drop by our office to pick up an extra copy.

Our office is located at: 205 Highland Oaks Dr. Angwin CA 94508 Phone #: (707) 965-7154

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

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

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.

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.

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 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 | 1 positive monthly sample | 0 | Naturally present in the environment |
| Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule) | (In the year) | 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 | (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 – 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 | No. of Schools Requesting Lead Sampling | Typical Source of Contaminant |
|--|----------------|--------------------------------|---|------------------------------|-----|-----|---|---|
| Lead (ppb) | 09-29-17 | 10 | <5 | None | 15 | 0.2 | | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) | 09-29-17 | 10 | 0.120 | None | 1.3 | 0.3 | Not applicable | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (ppb) | 07/2014 | 10 | <5 | NONE | 15 | 0.2 | | |
| Copper (ppm) | 07/2014 | 10 | <0.05 | NONE | 1.3 | 0.3 | | |
| Lead (ppb) | 06/2011 | 10 | <5 | NONE | 15 | 0.2 | | |
| Copper (ppm) | 06/2011 | 10 | 0.066 | NONE | 1.3 | 0.3 | | |
| Lead (ppb) | 06/2008 | 10 | <5 | NONE | 15 | 0.2 | | |
| Copper (ppm) | 06/2008 | 10 | <0.05 | NONE | 1.3 | 0.3 | | |
| Lead (ppb) | 06/2005 | 10 | 5.4 | NONE | 15 | 0.2 | | |
| Copper (ppm) | 06/2005 | 10 | 0.14 | NONE | 1.3 | 0.3 | | |

Note: PUC has never exceeded the Lead and Copper Action Levels since testing started in 1995, results above through 2017

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) | 03/2015 | 10.4 | 9.1-12 | NONE | NONE | Salt present in the water and is generally naturally occurring |
| Hardness (ppm) | 03/2015 | 22 | 17-27 | NONE | NONE | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |
| Alkalinity (Total ppm CaCO ₃) | 03/2015 | 41 | 32-48 | NONE | NONE | Generally found in ground and surface water |
| Calcium (ppm) | 03/2015 | 2.6 | 1.7-4.1 | NONE | NONE | Generally found in ground and surface water |
| Magnesium (ppm) | 03/2015 | 3.8 | 3-5 | NONE | NONE | Generally found in ground and surface water |

*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 |
|--|----------------|-------------------|------------------------|---------------|--------------------------|--|
| Asbestos | 03/2019 | < 2.0 ppb | <2.0 | 7 | 7 | Internal corrosion of asbestos cement water mains; erosion of natural deposits |
| Arsenic | 03/2015 | < 2.0 ppb | <2.0 | 10 ppb | 0.004 | Erosion of natural deposits; runoff from orchards; glass and electronics production waste. |
| Average Chlorine Residuals (ppm) | Daily | 0.5 | 0.3-0.7 | N/A | N/A | Sodium Hypochlorite injected into water from chlorination |
| Barium (Wells 3,4,5,6) (ppm) | 03/2015 | 160 | 140-190 | 1000 | 2 | Erosion of natural deposits |

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 | PHG (MCLG) | Typical Source of Contaminant |
|--|-------------|----------------|---------------------|----------|------------|--|
| Chromium | 03/2015 | < 1.0 ppb | <1.0 | 50 | (100) | Discharge from steel and pulp mills and chrome plating; erosion of natural deposits |
| Fluoride (ppb) | 03/2015 | 0.21 ppb | 0.2-0.23 ppb | 2 ppb | 150 ppb | Discharge from steel/metal, plastic and fertilizer factories |
| Gross Alpha Activity | 11/2007 | 0.6805 pCi/L | 0.43-1.02 | 15 pCi/L | 0 | Decay of natural man-made deposits |
| Nitrate | 05/2019 | 1.9 ppm | 0.62-3.4 | 10 | 10 | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| Perchlorate | 08/2017 | < 4.0 ppb | <4.0 | 6 | 1 | Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts. |
| Total Trihalomethanes (TTHMs) (ppb) | 03/2018 | <1.0 | <1.0 | 80 ppb | N/A | By-product of drinking water chlorination |
| Haloacetic Acids (ppb) | 08/2019 | 5.4 | 5.4 | 60 ppb | N/A | By-product of drinking water chlorination |
| Uranium (pCi/L) | 11/2007 | 0.19 pCi/L | <0-0.74 pCi/L | 20 pCi/L | 0.43 pCi/L | Discharge from steel/metal, plastic and fertilizer factories |

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

| | | | | | | |
|------------------------------|---------|-----------------|---------|----------------|-----|---|
| Chloride | 03/2015 | 6.4 ppm | 4.6-8.4 | 500 ppm | N/A | Runoff/leaching from natural deposits; seawater influence |
| Color Units | 03/2015 | 3.5 | <3-5 | 15 units | N/A | Naturally-occurring organic materials |
| Iron | 03/2015 | <100 ppb | 100 | 300 ppb | N/A | Leaching from natural products; industrial wastes |
| Manganese | 03/2015 | <20 ppb | <20 | 50 ppb | N/A | Leaching from natural deposits |
| Specific Conductance | 03/2015 | 137.5 micromhos | 120-150 | 1600 micromhos | N/A | Substance that form ions when in water; sea water influence |
| Sulfate | 03/2015 | 4.68 ppm | 1.7-10 | 500 ppm | N/A | Runoff/leaching from natural deposits, industrial waste |
| Total Dissolved Solids (TDS) | 03/2015 | 152.5 ppm | 140-160 | 1000 ppm | N/A | Runoff/leaching from natural deposits |
| Turbidity | 03/2015 | 0.76 units | 0.2-1.8 | 5 units | N/A | Soil Runoff |
| Zinc | 03/2015 | <50 ppb | <50 | 5.0ppm | 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 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. **Pacific Union College** 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

For Water Systems Providing Ground Water as a Source of Drinking Water

| TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER 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> | 0(2018) | Monthly 3,4 Quarterly 5,6 | 0 | (0) | Human and animal fecal waste |
| Enterococci | 0(2018) | Monthly 3,4 Quarterly 5,6 | TT | n/a | Human and animal fecal waste |
| Coliphage | 0(2018) | Monthly 3,4 Quarterly 5,6 | TT | n/a | Human and animal fecal waste |

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