2016

WATER QUALITY REPORT

Sonoma State University

PWS ID# 4910027
SSU TESTS 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, 2016 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.
CONTENTS

1  Notice from the EPA
   Water Sources

2  Term Definitions

3  How to Read the Water Quality Report

4-5  Water Quality Tables

6  Health Related Notices
Sonoma State University owns and operates three active wells located at the northwest quadrant of campus. Raw water is pumped from the wells and treated with NSF-approved chlorine for purposes of inactivating potentially pathogenic microorganisms. Water is then distributed throughout campus without further treatment.

In order to ensure that tap water is safe to drink, the USEPA and the State Water Resources Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

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.

FOR MORE INFORMATION

Craig Dawson,  
Director of Environmental Health & Safety  
craig.dawson@sonoma.edu  
707.664.2932
TERM definitions

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.

REGULATORY ACTION LEVEL (AL)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

SSU
Sonoma State University.

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).

PCI/L
Picocuries per liter (a measure of radiation).
HOW TO READ THE Water Quality Report

LEVEL DETECTED
The average amount of a constituent detected in the drinking water.

RANGE OF LEVELS DETECTED
The lowest to highest amount of a constituent detected in the drinking water.

HIGHEST LEVEL ALLOWED
Highest amount of a contaminant EPA allows in drinking water.

PUBLIC HEALTH GOALS
Below this level, a constituent has no known or expected health risk.

TYPICAL SOURCE OF CONTAMINANT
This describes the most likely ways a constituent enters the drinking water.
TREATED WATER QUALITY SUMMARY 2016

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 drinking water standards are asterisked.

### TABLE 1 Detection of coliform bacteria

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>HIGHEST LEVEL DETECTED</th>
<th># OF MONTHS IN VIOLATION</th>
<th>HIGHEST LEVEL ALLOWED (MCL)</th>
<th>PUBLIC HEALTH GOALS (MCLG)</th>
<th>TYPICAL SOURCE OF CONTAMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform Bacteria</td>
<td>0</td>
<td>0</td>
<td>1 positive monthly sample.</td>
<td>0</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td>Fecal Coliform or E. coli</td>
<td>0</td>
<td>0</td>
<td>A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E. coli positive.</td>
<td>0</td>
<td>Human and animal fecal waste.</td>
</tr>
<tr>
<td>E. coli</td>
<td>0</td>
<td>0</td>
<td>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.</td>
<td>0</td>
<td>Human and animal fecal waste.</td>
</tr>
</tbody>
</table>

### TABLE 2 Detection of lead and copper

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>YEAR SAMPLED</th>
<th>SAMPLES COLLECTED</th>
<th>90th PERCENTILE LEVEL DETECTED</th>
<th>EXCEEDING AL SITES</th>
<th>HIGHEST LEVEL ALLOWED (AL)</th>
<th>PUBLIC HEALTH GOALS (PHG)</th>
<th>TYPICAL SOURCE OF CONTAMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (ppb)</td>
<td>2014</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>0.2</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>2014</td>
<td>30</td>
<td>0.88</td>
<td>0</td>
<td>0</td>
<td>1.3</td>
<td>0.3</td>
</tr>
</tbody>
</table>
### TABLE 3 Results for sodium and hardness

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>YEAR SAMPLED</th>
<th>LEVEL DETECTED</th>
<th>RANGE OF LEVELS DETECTED</th>
<th>HIGHEST LEVEL ALLOWED (MCL)</th>
<th>PUBLIC HEALTH GOALS (MCL/G)</th>
<th>TYPICAL SOURCE OF CONTAMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium (ppm)</td>
<td>2014</td>
<td>17.5</td>
<td>17 - 18</td>
<td>0</td>
<td>0</td>
<td>Salt present in the water and is generally naturally occurring.</td>
</tr>
<tr>
<td>Hardness (ppm)</td>
<td>2014</td>
<td>161</td>
<td>145 - 161</td>
<td>0</td>
<td>0</td>
<td>Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring.</td>
</tr>
</tbody>
</table>

### TABLE 4 Detection of contaminants with a primary drinking water standard

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>YEAR SAMPLED</th>
<th>LEVEL DETECTED</th>
<th>RANGE OF LEVELS DETECTED</th>
<th>HIGHEST LEVEL ALLOWED (MCL) OR (MRDL)</th>
<th>PUBLIC HEALTH GOALS (MCL/G) OR (MRDL)</th>
<th>TYPICAL SOURCE OF CONTAMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate (as nitrogen, N-ppm)</td>
<td>2016</td>
<td>4.0</td>
<td>2.7 - 6.4</td>
<td>10</td>
<td>10</td>
<td>Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.</td>
</tr>
<tr>
<td>Total Trihalomethanes (ppb)</td>
<td>2016</td>
<td>8.66</td>
<td>1.45 - 3.82</td>
<td>80</td>
<td>N/A</td>
<td>Byproduct of drinking water disinfection.</td>
</tr>
<tr>
<td>Total Haloacetic Acids HAAS (ppb)</td>
<td>2016</td>
<td>1.0</td>
<td>ND - 1</td>
<td>60</td>
<td>N/A</td>
<td>Byproduct of drinking water disinfection.</td>
</tr>
<tr>
<td>Gross Alpha Particle Activity (µCi/L)</td>
<td>2015</td>
<td>0.738</td>
<td>0.654 - 0.821</td>
<td>15</td>
<td>0</td>
<td>Erosion of natural deposits.</td>
</tr>
<tr>
<td>Arsenic (ppb)</td>
<td>2014</td>
<td>1.6</td>
<td>ND - 2.7</td>
<td>10</td>
<td>0.004</td>
<td>Erosion of natural deposits; runoff from orchards; glass and electronics production waste.</td>
</tr>
<tr>
<td>Hexavalent Chromium (ppb)</td>
<td>2014</td>
<td>1.8</td>
<td>ND - 3.0</td>
<td>10</td>
<td>0.02</td>
<td>Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits</td>
</tr>
</tbody>
</table>

### TABLE 5 Detection of contaminants with a secondary drinking water standard

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>YEAR SAMPLED</th>
<th>LEVEL DETECTED</th>
<th>RANGE OF LEVELS DETECTED</th>
<th>HIGHEST LEVEL ALLOWED (MCL)</th>
<th>PUBLIC HEALTH GOALS (MCL/G)</th>
<th>TYPICAL SOURCE OF CONTAMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Dissolved Solids (ppm)</td>
<td>2014</td>
<td>257</td>
<td>250 - 270</td>
<td>1000</td>
<td>N/A</td>
<td>Naturally occurring organic and inorganic materials; soil runoff.</td>
</tr>
<tr>
<td>Specific Conductance (µS/cm)</td>
<td>2014</td>
<td>373</td>
<td>350 - 400</td>
<td>1600</td>
<td>N/A</td>
<td>Naturally occurring inorganic materials; industrial pollutants.</td>
</tr>
<tr>
<td>Chloride (ppm)</td>
<td>2014</td>
<td>15</td>
<td>13 - 18</td>
<td>500</td>
<td>N/A</td>
<td>Naturally occurring.</td>
</tr>
<tr>
<td>Sulfate (ppm)</td>
<td>2014</td>
<td>153</td>
<td>145 - 161</td>
<td>500</td>
<td>N/A</td>
<td>Naturally occurring.</td>
</tr>
</tbody>
</table>
HEALTH-RELATED NOTICES

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 at 800.426.4791.

PRECAUTIONS FOR VULNERABLE POPULATIONS

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 at 800.426.4791.

REDUCING LEAD IN DRINKING WATER

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.

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.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800.426.4701 or online at epa.gov/lead.

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant’s blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin.

Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.