

**U.S. Department of
Homeland Security**

**United States
Coast Guard**



Commanding Officer
United States Coast Guard
Training Center Petaluma

599 Tomales Road
Petaluma, CA 94952
Staff Symbol: e
Phone: (707) 765-7303
Fax: (707) 765-7664

11330
September 24, 2018

U.S. Coast Guard
Training Center Petaluma
599 Tomales Road
Petaluma, CA 94952

TRAINING CENTER PETALUMA 2017 WATER QUALITY REPORT

Training Center Petaluma Staff, Students, and Residents,

I am pleased to provide the 2017 Water Quality Report. Once again, our drinking water has surpassed the strict standards set forth by the California State Water Resources Control Board, Division of Drinking Water. Enclosures (1) and (2) contain specific laboratory test results which are summarized herein.

Training Center Petaluma's drinking water is purchased from the City of Petaluma, and supplied to our local distribution system via pipeline from our King Road pump station. To ensure your health and safety, the water is analyzed, re-chlorinated as needed, and supplemented with fluoride. Our staff conducts daily chlorine level tests, and submits at least two samples each month to an independent lab for bacteriological testing. These samples are systematically collected from faucets from within housing, offices, barracks, and other locations so that our entire system is monitored.

Between the extensive testing conducted by the City of Petaluma, the independent lab, and our technicians, we are confident that the water you drink is safe. There were no violations of California's Primary Drinking Water Standards during the year, and all laboratory test results were negative for coliform (E-Coli) bacteria.

We also test for lead and copper every third year, asbestos every ninth year, and disinfection byproducts annually. Disinfection byproducts (DBP) are compounds formed when organic molecules are exposed to chlorine over a period of time. Unfortunately, due to a clerical error, we missed testing for DBPs in 2017. To compensate for this error, two separate DBP tests were completed in 2018 –one in February and one in August 2018. Tests for lead, copper, and asbestos were last completed in 2015. All results have been well below regulatory maximum contaminant levels (MCL).

On April 7, 2017, Governor Brown issued the fifth in a series of Executive Orders directing the State Water Board to develop permanent prohibitions on wasteful water use. A report released by the state titled "Making Water Conservation a California Way of Life" highlights and simplifies many of these requirements. While our region is not currently facing immediate drought conditions, water conservation requirements remain in effect. Drought or not, there is never enough water to waste.

TRAINING CENTER PETALUMA 2017 WATER QUALITY REPORT

Additional information regarding water quality and conservation is available at the following links:

City of Petaluma - <http://www.cityofpetaluma.net/wrcd/pdf/WaterQuality2017.pdf>
<http://cityofpetaluma.net/wrcd/waterconservation.html>

Sonoma County Water Agency - <http://www.scwa.ca.gov/water-supply/>

State Water Resources Control Board –

http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/
https://water.ca.gov/LegacyFiles/wateruseefficiency/conservation/docs/20170407_EO_B-37-16_Final_Report.pdf

I encourage you to make every attempt to conserve water, and ask that you promptly report wasteful water losses – whether due to leaky plumbing, improper irrigation, etc. If you have any questions or concerns regarding your drinking water, please contact the Engineering Customer Service Desk at (707) 765-7301, our Water System Operator, Mr. Jason Archer, or feel free to contact me directly.

Sincerely,



D. R. Ursino, P.E.
Commander, U. S. Coast Guard
Facilities Engineer
By Direction

Enclosure: (1) TRACEN 2017 Consumer Confidence Report
(2) City of Petaluma Water Quality Report 2017

2017 Consumer Confidence Report

Water System Name: U.S. Coast Guard Training Center Petaluma Report Date: 09/21/2018

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, 2017 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: Purchased water from the City of Petaluma

Name & general location of source(s): The point of connection to the Petaluma distribution system is on the 2100 Block of Bodega Ave. just northwest of the Lohrman Lane intersection.

Drinking Water Source Assessment information: <http://www.cityofpetaluma.net/wrcd/pdf/WaterQuality2017.pdf>

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

For more information, contact: Jason Archer Phone: (707) 765-7301

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 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.

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

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 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, 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 mo.) 0	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	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	(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)	09/29/15	10	0.32 ppb	0	15	0.2	1	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	09/29/15	10	0.045 ppm	0	1.3	0.3	Not applicable	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)	NA			none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	NA			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
None detected						

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
None detected						

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Asbestos	09/24/15	< 0.2 MFL	< 0.2 MFL	7 MFL	increased risk of developing benign intestinal polyps.

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 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. U. S. Coast Guard Training Center Petaluma 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 (1-800-426-4701) or at <http://www.epa.gov/lead>.

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
DPBM Stage 2 sample not tested in 2017		N/A	Two DPBM Stage 2 samples tested in 2018. Draw (1) on Feb 6, 2018 Draw (2) on Aug 28, 2018	
2017 CCR not submitted before required due date	clerical error CCR was due July 1	N/A	Recurring reporting requirement reminder added to the local Maintenance Management Information System	N/A

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)		0	(0)	Human and animal fecal waste
Enterococci	(In the year)		TT	n/a	Human and animal fecal waste
Coliphage	(In the year)		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				
Not applicable				
SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES				
VIOLATION OF GROUNDWATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

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)	Not applicable
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 ____ NTU in 95% of measurements in a month. 2 – Not exceed ____ NTU for more than eight consecutive hours. 3 – Not exceed ____ NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	
Highest single turbidity measurement during the year	
Number of violations of any surface water treatment requirements	

(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
Not applicable				

Summary Information for Operating Under a Variance or Exemption

Not applicable.

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). N/A Level 1 assessment(s) were completed. In addition, we were required to take ZERO corrective actions and we completed N/A of these actions.

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

Not applicable / none detected.

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.

We were required to complete a Level 2 assessment because we found *E. coli* in our water system. In addition, we were required to take ZERO corrective actions and we completed N/A of these actions.

Not applicable / none detected.

Presented By
The City of Petaluma
Public Works & Utilities



ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2017

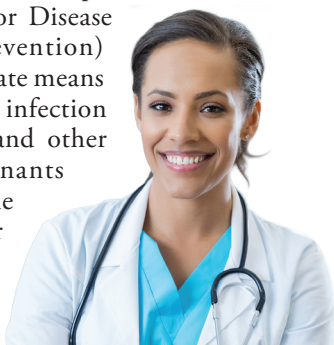
Quality First

Once again we are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or <http://water.epa.gov/drink/hotline>.



Where Does My Water Come From?

Petaluma purchases drinking water from the Sonoma County Water Agency (SCWA). SCWA water originates from three reservoirs: Lake Pillsbury, Lake Mendocino, and Lake Sonoma. Releases from these reservoirs into the Russian River replenish the aquifers beneath the river. The SCWA water supply is collected 80 feet below the sand beds adjacent to the Russian River. Natural filtration gives this water its excellent quality; it requires no additional filtration. The only treatment administered is the addition of chlorine to keep the water pure in the delivery pipeline, and a small amount of sodium hydroxide to raise the pH to minimize corrosion of household pipes. The SCWA supplements their Russian River water supply with groundwater collected from three production wells along the Cotati Aqueduct in the Santa Rosa Plain. For more information about the Russian River water system, please contact the Sonoma County Water Agency at 404 Aviation Blvd., Santa Rosa, CA 95403, via phone at (707) 526-5370, or via their Web site at www.scwa.ca.gov.

The City of Petaluma maintains a ready supply of local groundwater. Local groundwater, when used, is drawn from wells more than 400 feet deep. The water is naturally filtered by the sand and gravel it passes through in the aquifers. Chlorine is added to keep the water pure in the delivery into the city distribution system.

Source Water Assessment

An assessment of the drinking water sources for the City of Petaluma was completed in March 2003. The sources for the City of Petaluma are considered most vulnerable to the following activities: sewer collection systems, airport maintenance and fueling areas, known contaminant plumes, and underground storage tanks.

The sources for the SCWA are considered most vulnerable to wastewater disposal and mining operations.

No contaminants associated with these activities have been detected in either of the water supplies.

Copies of the completed assessments are available at the Department of Health Services, 50 D Street, Suite 200, Santa Rosa, CA. You may request a summary of the assessments to be sent to you by contacting the Department of Health Services, Office of Drinking Water, at (707) 576-2145.



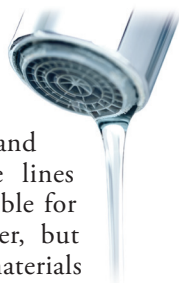
Community Participation

For matters affecting your Department of Water Resources and Conservation, the Petaluma City Council meets every first and third Monday of the month at Petaluma City Hall. For information on agenda items relating to the Department of Water Resources or other city water matters, please call the City Clerk at (707) 778-4360.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 www.epa.gov/lead.



Water treatment is a complex, time-consuming process.

Substances That Could Be in Water

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) 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. 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. 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 water poses a health risk.

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 can 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 applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

QUESTIONS?

If you have any comments, questions, or suggestions, please call Joel McIntyre, Public Works and Utilities, at (707) 776-3698, or send him email at jmcintyre@ci.petaluma.ca.us.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The state recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES									
				Petaluma Public Works & Utilities		SCWA			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2017	1,000	600	59.55	0–140	50	50–50	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2017	10	0.004	3.73	0–6.4	2	2–2	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2017	1	2	0.102	0–0.190	0.1	0.1–0.1	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2017	50	(100)	5.5	0–10	10	10–10	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Combined Radium (pCi/L)	2017	5	(0)	0.02	0–0.23	NA	NA	No	Erosion of natural deposits
Fluoride (ppm)	2017	2.0	1	0.17	0.12–0.24	0.10	0.10–0.14	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2017	15	(0)	1.55	0–3.57	0.7187 ¹	0.035–0.949 ¹	No	Erosion of natural deposits
Nitrate [as nitrate] (ppm)	2017	45	45	0.45	0–1.6	0.4	0–0.4	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	2017	5	0.019	0.02	0–0.23	0.33	0.33–1.18	No	Erosion of natural deposits

Definitions

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

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

MCL (Maximum Contaminant Level): 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 (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): 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. EPA.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

pCi/L (picocuries per liter): A measure of radioactivity.

continued on the next page

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2017	1.3	0.3	0.061	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SECONDARY SUBSTANCES

				Petaluma Public Works & Utilities		SCWA			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2017	200	NS	59	50–140	NA	NA	No	Erosion of natural deposits; residual from some surface water treatment processes
Color (Units)	2017	15	NS	NA	NA	50	50–50	No	Naturally occurring organic materials
Copper (ppm)	2017	1.0	NS	30.91	0–240	50	0–50	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Foaming Agents [MBAS] (ppb)	2017	500	NS	0.05	0–0.05	0.05	0–0.05	No	Municipal and industrial waste discharges
Iron (ppb)	2017	300	NS	170	0–510	100	100–160	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2017	50	NS	37	0–120	23	20–69	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2017	1,600	NS	550	430–700	261	240–290	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2017	500	NS	22.1	6.9–42	10.3	2.3–18	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2017	1,000	NS	375	260–490	153	130–210	No	Runoff/leaching from natural deposits
Turbidity (Units)	2017	5	NS	1.42	0–5.8	NA	NA	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES ²

		Petaluma Public Works & Utilities		SCWA		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2017	58	26–130	15.9	7.4–36	Naturally occurring
Total Hardness (ppm)	2017	165	67–236	92.5	37–117	NA

¹ Sampled in 2015.

² Unregulated contaminant monitoring helps the U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): 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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).