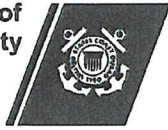


U.S. Department of  
Homeland Security

United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Training Center Petaluma

599 Tomales Road  
Petaluma, CA 94952  
Phone: (707) 765-7303  
Fax: (707) 765-7664  
Email: Todd.M.Wimmer@uscg.mil

11000  
May 16, 2022

Two Rock Union School District  
5001 Spring Hill Road  
Petaluma, CA 94952

Dear Sir or Madam:

I am pleased to provide the USCG Training Center Petaluma 2021 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. 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. California's stringent primary drinking water standards were upheld throughout the year, including regular, recurring testing for bacteria, metals, and asbestos to ensure drinking water safety.

Additional information regarding water quality and conservation is available at the City of Petaluma, Sonoma County Water Agency and California State Water Resource Control Board websites.

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 or feel free to contact me directly.

Sincerely,

A handwritten signature in blue ink, appearing to read "T. M. Wimmer".

T. M. WIMMER, P.E.  
Commander, Facilities Engineer  
U. S. Coast Guard

Enclosures: (1) TRACEN 2021 Consumer Confidence Report  
(2) City of Petaluma Water Quality Report 2021



## 2021 Consumer Confidence Report

### Water System Information

Water System Name: USCG TRACEN Petaluma

Report Date: 28 April 2022

Type of Water Source(s) in Use: The public water system at TRACEN Petaluma is defined as a Consecutive System. This means that finished water is purchased from the City of Petaluma and is delivered through their distribution system to the King Road Pump Station.

Name and General Location of Source(s): The City of Petaluma has two water sources. One source is a series of ground water wells owned and operated by the City of Petaluma. The other source is the purchase of finished water from ground water wells owned and operated by the Sonoma County Water Agency.

Drinking Water Source Assessment Information: Drinking Water Source Assessment Information can be obtained from the City of Petaluma 2021 Consumer Confidence Report (CCR). The link to this document is: <https://storage.googleapis.com/proudcity/petalumaca/uploads/2022/04/CCR-2021.pdf>

Time and Place of Regularly Scheduled Board Meetings for Public Participation: Regularly scheduled meetings for public participation are not conducted. Public participation in decisions that may affect the quality of water can be made by contacting the person designated to respond to customer inquires listed below.

For More Information, Contact: Warren Schenstrom Facilities Maintenance Specialist Phone: (707) 765-7479

### About This Report

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, 2021 and may include earlier monitoring data.

### Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse USCG TRACEN Petaluma a 599 Tomales Road Petaluma CA 94952 (707) 765-7479 para asistirlo en español.

Language in Mandarin: 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 USCG TRACEN Petaluma 以获得中文的帮助: 599 Tomales Road Petaluma CA 94952 (707) 765-7479.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa USCG TRACEN Petaluma 599 Tomales Road Petaluma CA 94952 o tumawag sa (707) 795-7479 para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ USCG TRACEN Petaluma tại 599 Tomales Road Petaluma CA 94952 (707) 765-7479 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsaab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau USCG TRACEN Petaluma ntawm 599 Tomales Road Petaluma CA 94952 (707) 765-7479 rau kev pab hauv lus Askiv.

### Terms Used in This Report

Term	Definition
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 <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
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).
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.
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.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.
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.

Term	Definition
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)

## Sources of Drinking Water and Contaminants that May Be Present in Source 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.

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.

## Regulation of Drinking Water and Bottled Water Quality

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.



## About Your Drinking Water Quality

### Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, 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 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**

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	(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 1.A. Compliance with Total Coliform MCL between January 1, 2021 and June 30, 2021 (inclusive)**

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a month) 0	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	(in the year) 0	0	0	None	Human and animal fecal waste

(a) For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL

For violation of the total coliform MCL, include potential adverse health effects, and actions taken by water system to address the violation: Not Applicable

**Table 2. Sampling Results Showing the Detection of Lead and Copper**

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	07/22/2021	10	< 5	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	07/22/2021	10	0.1	0	1.3	0.3	N/A	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)	See City of Petaluma CCR			None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	See City of Petaluma CCR			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
Chlorine (mg/L)	10/10/2021	1.6	0.2 – 1.6	[4.0 (as Cl <sub>2</sub> )]	[ 4.0 (as Cl <sub>2</sub> )]	Drinking water disinfectant added for treatment
Total Trihalomethanes (ppb) TTHMs	02/02/2021	23	22 - 23	80	N/A	Byproduct of drinking water disinfection
Haloacetic Acids (ppb) HAA5	02/02/2021	6.5	6.1 - 6.5	60	N/A	Byproduct of drinking water disinfection

**Table 5. Detection of Contaminants with a Secondary Drinking Water Standard**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
See City of Petaluma CCR						

**Table 6. Detection of Unregulated Contaminants**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Asbestos	09/24/2015	< 0.2 MFL	< 0.2 MFL	7 MFL	Some people who drink water containing asbestos in excess of the MCL over many years may have an 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:** 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. USCG TRACEN 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

**Additional Special Language for Arsenic:** The City of Petaluma detected Arsenic in their water. While the drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

**State Revised Total Coliform Rule (RTCR):**

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

### Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
No Violations	N/A	N/A	N/A	N/A

### For Water Systems Providing Groundwater as a Source of Drinking Water

**NOTE: USCG TRACEN Petaluma does not have Groundwater Wells as a Source of Drinking Water.**

Table 8. 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>	N/A	N/A	0	(0)	Human and animal fecal waste
Enterococci	N/A	N/A	TT	N/A	Human and animal fecal waste
Coliphage	N/A	N/A	TT	N/A	Human and animal fecal waste

### Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

Special Notice of Fecal Indicator-Positive Groundwater Source Sample: Not Applicable

Special Notice for Uncorrected Significant Deficiencies: Not Applicable

Table 9. Violation of Groundwater TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
N/A	N/A	N/A	N/A	N/A

**For Systems Providing Surface Water as a Source of Drinking Water**

**NOTE: USCG TRACEN Petaluma does not have a Surface Water Reservoir as a Source of Drinking Water.**

**Table 10. Sampling Results Showing Treatment of Surface Water Sources**

Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Not Applicable
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	<p>Turbidity of the filtered water must:</p> <p>1 – Be less than or equal to [Enter Turbidity Performance Standard to Be Less Than or Equal to 95% of Measurements in a Month] NTU in 95% of measurements in a month.</p> <p>2 – Not exceed [Enter Turbidity Performance Standard Not to Be Exceeded for More Than Eight Consecutive Hours] NTU for more than eight consecutive hours.</p> <p>3 – Not exceed [Enter Turbidity Performance Standard Not to Be Exceeded at Any Time] NTU at any time.</p>
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	Not Applicable
Highest single turbidity measurement during the year	Not Applicable
Number of violations of any surface water treatment requirements	Not Applicable

(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**

**Table 11. Violation of Surface Water TT**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
N/A	N/A	N/A	N/A	N/A

**Summary Information for Operating Under a Variance or Exemption**

**NOTE: USCG TRACEN Petaluma does not Operate Under a Variance or Exemption.**

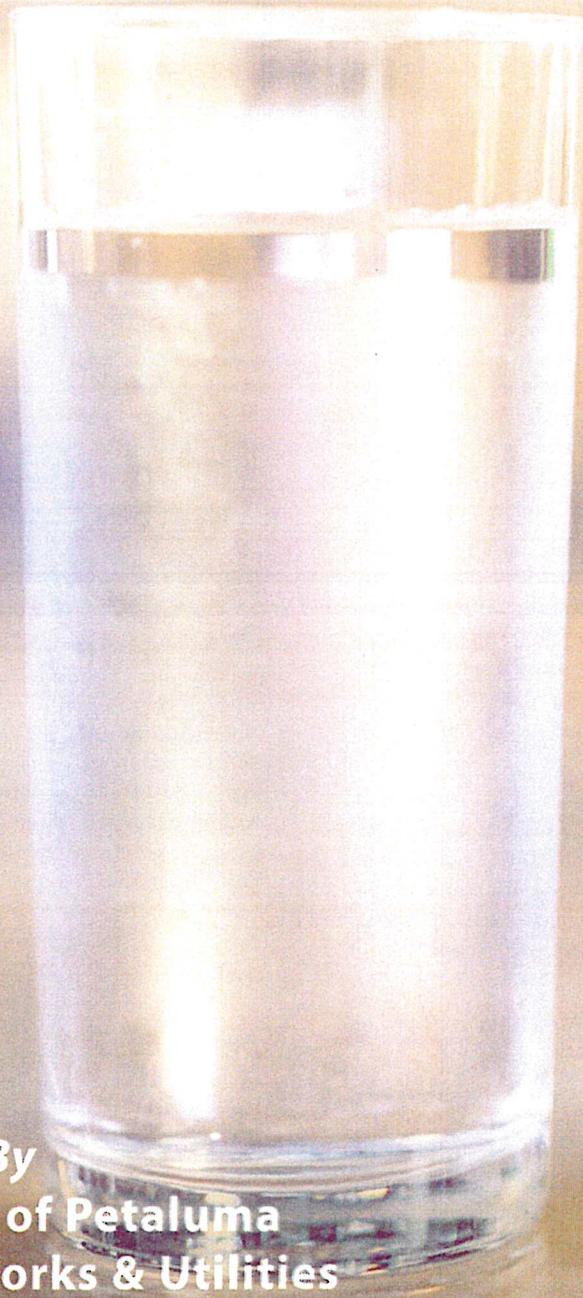
**Summary Information for Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements**

**NOTE: USCG TRACEN Petaluma is in compliance with the Total Coliform MCL. The completion of Revised Total Coliform Rule Level 1 or Level 2 Assessment Requirements are not necessary.**



# ANNUAL WATER QUALITY REPORT

Reporting Year 2021



*Presented By*  
**The City of Petaluma  
Public Works & Utilities**



## We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

## Where Does My Water Come From?

Petaluma purchases drinking water from Sonoma Water. Water from Sonoma 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 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. Sonoma Water 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 Sonoma Water at 404 Aviation Blvd., Santa Rosa, CA 95403, via phone at 526-5370 or via their website at [www.sonomawater.org](http://www.sonomawater.org).

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 during 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 Sonoma Water 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.

## 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

“  
When the well is dry, we  
know the worth of water.  
—Benjamin Franklin  
”

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 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>.



If you have any comments, questions, or suggestions, please contact Public works and Utilities Supervisor Joel McIntyre at (707) 776-3698 or [JMcIntyre@cityofpetaluma.org](mailto:JMcIntyre@cityofpetaluma.org), or Utility System Operator Jason Archer at (707) 776-3653, or [jarcher@cityofpetaluma.org](mailto:jarcher@cityofpetaluma.org).



## Safeguard Your Drinking Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain it to reduce leaching to water sources, or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community.
- Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council (NRDC), bottled water is not necessarily cleaner or safer than most tap water. In fact, about 40 percent of bottled water is actually just tap water, according to government estimates.

The Food and Drug Administration (FDA) is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out its website at <https://goo.gl/Jxb6xG>.

## 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, which are by-products of industrial processes and petroleum production, and which 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.

## Community Participation

For matters affecting your Public Works & Utilities Department, 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 Public Works & Utilities Department or other city water matters, please call the City Clerk at (707) 778-4360.



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not 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 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.



REGULATED SUBSTANCES									
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL (MRDL)	PHG (MCLG) (MRDLG)	Petakuma Public Works & Utilities		SCWA		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Aluminum (ppm)	2021	1	0.6	0.0181	ND-0.073	<0.050	ND-<0.050	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2021	10	0.004	2.79	ND-9.2	<2.0	<2.0-<2.0	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2021	1	2	0.089	ND-0.19	<1	<1-<1	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium [Total] (ppb)	2021	50	(100)	0	ND	<10	<10-<10	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2021	2.0	1	0.16	ND-0.24	0.12	<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)	2020	15	(0)	0.93 <sup>1</sup>	ND-3.11 <sup>1</sup>	0.7187 <sup>2</sup>	0.035-0.949 <sup>2</sup>	No	Erosion of natural deposits
Nitrate [as nitrate] (ppm)	2021	45	45	0.39	ND-1.4	<0.40	<0.40-<0.40	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 (pCi/L)	2018	5	0.019	0	ND-0	0.755	0.0-1.18	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes]-Stage 2 (ppb)	2021	80	NA	23.04	22.10-23.98	0.104	0.032-0.213	No	By-product of drinking water disinfection

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 %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2020	1.3	0.3	0.055	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2020	15	0.2	0.009	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits



## SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	Petaluma Public Works & Utilities			SCWA		VIOLATION	TYPICAL SOURCE
			PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Color (Units)	2021	15	NS	0	0-0	3.29	<3-4	No	Naturally-occurring organic materials
Foaming Agents [MBAS] (ppb)	2021	500	NS	ND	ND-NA	5	5-5	No	Municipal and industrial waste discharges
Iron (ppb)	2021	300	NS	270	ND-960	<100	<100-<100	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2021	50	NS	33.60	ND-130	23.3	<20-56	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2021	1,600	NS	621	440-800	230	200-270	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2021	500	NS	22.19	7.90-33.00	9.96	0.53-17	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2021	1,000	NS	347	220-470	160	130-240	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2021	5	NS	2.46	0.26-10	0.21	<0.10-0.95	No	Soil runoff

## UNREGULATED SUBSTANCES\*

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Petaluma Public Works & Utilities		SCWA		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Sodium (ppm)	2021	61.40	31.00-130.00	19.75	9.3-55.0	Naturally occurring
Total Hardness (ppm)	2021	171.90	72.00-313.00	95.09	28.0-126.0	Naturally occurring

\* Last round of testing was conducted in 2020. Testing is completed every 9 years.

<sup>2</sup> Sampled in 2014.

<sup>3</sup> Sampled in 2021.

<sup>4</sup> Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

## Level 1 Assessment Update

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 4th quarter of the past year, we were required to conduct ten (10) Level 1 assessments, which were all completed. In addition, we were required to take no corrective actions in reference to the Revised Total Coliform Rule (RTCR) Level 1 assessment.

### Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

**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.

**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

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

**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).

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

