



2024 Water Quality Report



WATER QUALITY TESTING RESULTS

GROUNDWATER PROTECTION

MANDATORY WATERING SCHEDULE

REBATES & FREE SUPPLIES



Scan this
code to
access the
Water Quality
Report online!

CITY OF LACEY, WASHINGTON

cityoflacey.org/water-quality

Pictured Above: Water Utility Technician Michael Marten is performing annual fire hydrant inspection and maintenance.

This report contains important information about your drinking water.

If you need assistance with translation of this report, seek help from someone who can read and translate it for you. The full report is also available online in Spanish, Korean, Vietnamese, Filipino, and simplified Chinese at cityoflacey.org/water-quality.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.

A Message from the Mayor

I am pleased to announce Lacey's drinking water met or exceeded all regulations and mandates established by the Environmental Protection Agency for 2023.

I encourage you to read and learn about the quality of our community's drinking water. You can rest assured Lacey staff work around the clock to maintain a water system that delivers consistent, high quality drinking water 24/7.

Information contained in this report and online at cityoflacey.org/water-quality enables Lacey's water customers, specifically those with special health considerations, to make informed decisions about the water they use every day.

If you have questions regarding the community's drinking water or the information in this report, please contact your Lacey Water Utility at **360-491-5600**.

Sincerely,



Mayor Andy Ryder



Attend a City Council Meeting

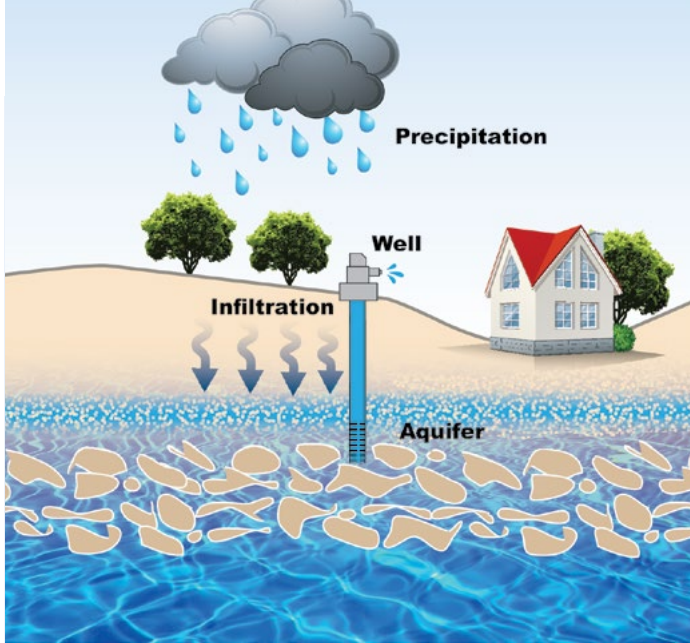
City Council meetings are held at 6:00 p.m. in the Council Chambers at Lacey City Hall, 420 College Street SE. Regular meetings are held on the 1st and 3rd Tuesday of each month, and Worksessions are held on the 2nd and 4th Tuesday of each month. Upcoming and archived meeting materials, including media recordings, are available on the City website at laceywa.portal.civicclerk.com If you have any questions regarding the meetings, please call **360-491-3214**.

To Request a Paper Copy

To request a paper copy of the Water Quality Report contact us at **360-491-5600** or WaterResources@cityoflacey.org

Scan this code to access the Water Quality Report online!





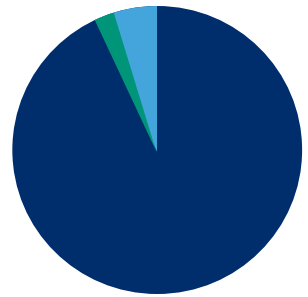
Where Does Lacey's Water Come From?

All of the water you use in your home comes from groundwater wells located throughout the greater Lacey area. The wells pump water up from three underground aquifers. An aquifer is a natural underground layer of rock or sand that stores water. Groundwater is found in the porous spaces between the rock and sand.

By the end of 2023, the Lacey water distribution system consisted of:

8 WATER RESERVOIRS	20 PRODUCTION WELLS	429 MILES OF WATERLINES
4,250 HYDRANTS	14,100 WATER VALVES	30 STAFF MEMBERS

Where Did Lacey's Water Go in 2023?



93% CITY CUSTOMERS WITH WATER METERS

(2.9 billion gallons)

2% AUTHORIZED CITY USES*

(63 million gallons)

5% DISTRIBUTION SYSTEM LEAKAGE**

(160 million gallons)

For more information about Lacey's distribution system or to report problems, call Public Works at **360-491-5644** or go to [LaceyWorks at cityoflacey.org/laceyworks](http://LaceyWorks.org).

***Authorized uses include street sweeping, water line flushing, treatment facility maintenance and other related activities.*

***Distribution system leakage (DSL) refers to all water that could not be accounted for and is attributed to water main breaks, theft of water and other unknown water losses. The state requires that utility of Lacey's size maintain a DSL of less than 10%**

Mandatory Summer Watering Schedule

Effective June 1 – September 30

ADDRESS ENDS WITH AN:	EVEN NUMBER 0-2-4-6-8	ODD NUMBER 1-3-5-7-9
WATERING DAYS ARE:	Sunday, Tuesday & Thursday	Monday, Wednesday & Saturday



NO WATERING ON FRIDAYS

Since 2006, the City of Lacey has enforced an ODD/EVEN watering schedule for water customers to help meet peak summer demand. In winter Lacey customers use about 6 million gallons of water per day. In the summer water usage can increase to more than 13 million gallons per day. This is mostly due to landscape watering. Help us keep water rates lower for longer by reducing your summer water use.

To apply for a temporary exemption or variance from the watering schedule, contact Water Resources at **360-491-5600** or WaterResources@cityoflacey.org

PLEASE NOTE: Failure to follow the outdoor watering policy could lead to the discontinuation of your water service and a \$250 fine.

Water Quality Testing Results Now Available

The drinking water delivered to your home in 2023 by the City of Lacey's water utility met or exceeded all regulations and mandates established by the Environmental Protection Agency. Our monthly, comprehensive water testing program ensures our water is safe to drink.

The 2023 Water Quality Test Results includes important information about lead and other contaminants that may be present in drinking water. Drinking water, including bottled, may contain some contaminants; however this does not necessarily mean the water poses a health risk. You can get more information about contaminants and potential health effects by calling the 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. Immunocompromised people, such as those undergoing chemotherapy, organ transplant recipients, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly vulnerable to infections. These people should seek advice about drinking water from their health care providers. You can also get EPA/CDC guidelines for reducing the risk of infection by *Cryptosporidium* and other microbial contaminants by calling the Safe Drinking Water Hotline (1-800-426-4791).

Mandatory Lead Statement

Lead in drinking water primarily comes from materials and components in service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. While the City of Lacey Water Utility ensures high-quality drinking water, it cannot control the materials used in plumbing components not installed by the City. If the water in your pipes has been sitting for several hours, you can reduce the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may consider having it properly tested. You can find information on lead in drinking water, testing methods, and steps you can take to minimize exposure by calling the Safe Drinking Water Hotline or visiting epa.gov/safewater/lead.

Violations

The City is required to regularly monitor your drinking water for specific contaminants. The results serve as an indicator of whether our drinking water meets health standards. Due to historical non-detections found at our source 25, our system was issued a waiver from monitoring for herbicides from January 2014 to December 2022, which required only one sample during this period. Due to unfortunate logistics, the sample was delayed until 3/30/2023 which resulted in a monitoring violation being issued; however no chemicals were detected. Herbicide Panel chemicals include: Dalapon, 2,4-D, 2,4,5-TP (Silvex), Pentachlorophenol, Dinoseb, Picloram, Dicamba, 2,4 DB, 2,4,5 T, Bentazon, Dichlorprop, Acifluorfen, DCPA (Acid Metabolites) and 3,5 - Dichlorobenzoic Acid.

At this time there are no corrective actions needed to assure your water is safe to drink, even for populations with compromised immune systems, infants, and pregnant women. If herbicides were detected at levels exceeding the Maximum Contaminant Level and you were exposed to them over many years, then health effects known to cause problems with kidneys, liver, adrenal glands, eyes, spleen, anemia, issues with the reproductive and cardiovascular systems, and an increased risk of getting cancer would be a concern.

Chlorine is added to drinking water to eliminate parasites, bacteria, and viruses. The City is required monthly to report daily chlorination readings to the State Department of Health. In January 2023, the City failed to submit the signed report on time, resulting in a reporting violation. However, the chlorine samples taken during this time indicated normal operations, ranging from 0.38 to 0.79 parts per million (ppm). (Chlorine levels up to 4 ppm are considered safe in drinking water.)

Please share this information with others who drink Lacey's water, especially those who may not have received this notice (e.g. schools, businesses, and people who live in apartments and nursing homes). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Lacey Water Department ID #43500Y in our 2023 Annual Consumer Confidence Report. If you have questions or concerns about these violations received, please contact the City's Water Quality Analyst at **360-493-2410** or WaterResources@cityoflacey.org.

CONTAMINANT	HIGHEST LEVEL ALLOWED	GOAL NOT TO EXCEED	HIGHEST LEVEL DETECTED	LOWEST LEVEL DETECTED	DATE OF HIGHEST LEVEL DETECTED	TYPICAL SOURCE OF CONTAMINANT
PRIMARY STANDARDS REGULATED BY EPA FOR PROTECTING HEALTH						
Arsenic	10 ppb	0	2 ppb	<1 ppb	7/13/21	Erosion of natural deposits
Fluoride	4 ppm ¹	4 ppm	<0.2 ppm	<0.2 ppm	5/18/21	Geology, natural weathering. Fluoride is not added to water
Lead	15 ppb	0	8 ppb	<1 ppb	8/10/21	Geology, brass fittings
Nitrate	10 ppm	10 ppm	44 ppm	<1 ppm	1/10/23	Septic systems, fertilizer, animal waste
Ethylbenzene	700 ppb	700 ppb	0.52 ppb	0.52 ppb	8/30/23	Discharge from petroleum refineries, paint from new reservoir
Xylenes	10,000 ppb	10,000 ppb	1.74 ppb	1.74 ppb	8/30/23	Discharge from petroleum refineries and chemical factories, paint from new reservoir
Radium 228	5 pCi/L	0 pCi/L	1 pCi/L	<1 pCi/L	7/19/22	Geology, natural weathering
Total Coliform Bacteria (% monthly samples testing positive)	5%	0%	1%	0%	9/28/22	Naturally present in the environment
Free Chlorine Residual	4 ppm	4 ppm	1.04 ppm	0.34 ppm	11/8/22	Added as a disinfectant to the water system
Total Trihalomethanes ²	80 ppb	NA	8 ppb	<1 ppb	1/18/22	Reaction of chlorine with naturally occurring organic matter
Total Haloacetic acids ³	60 ppb	NA	9 ppb	<1 ppb	1/28/22	Reaction of chlorine with naturally occurring organic matter
REGULATED PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)⁴						
PFOA	4 ppt	0 ppt	2.5 ppt	<0.075 ppt	12/1/23	Run-off or leaching from firefighting foam, industrial discharge, and landfills; wastewater treatment plants
PFOS	4 ppt	0 ppt	2.6 ppt	<0.098 ppt	12/1/23	
PFNA	10 ppt	10 ppt	0.14 ppt	<0.087 ppt	12/1/23	
PFHxS	10 ppt	10 ppt	1.6 ppt	<0.061 ppt	12/1/23	
UNREGULATED PFAS						
PFBS	345 ppt (SAL)		2.4 ppt	<0.11 ppt	12/1/23	Run-off or leaching from firefighting foam, industrial discharge, and landfills; wastewater treatment plants
PFPeS	unregulated		0.34 ppt	<0.05 ppt	12/1/23	
PFBA	unregulated		0.81 ppt	<0.057 ppt	12/1/23	
PFPeA	unregulated		1.3 ppt	<0.10 ppt	12/1/23	
PFHxA	unregulated		1.9 ppt	<0.11 ppt	12/1/23	
PFHpA	unregulated		0.71 ppt	<0.052 ppt	12/1/23	
SECONDARY STANDARDS REGULATED BY EPA FOR AESTHETICS						
Chloride	250 ppm		18 ppm	1 ppm	8/10/21	Geology, natural weathering
Copper	1300 ppb	1300 ppb	43 ppb	<20 ppb	8/10/21	Geology, natural weathering
Iron	300 ppb		370 ppb	<100 ppb	9/13/21	Geology, natural weathering
Manganese	50 ppb		61 ppb	<10 ppb	7/14/21	Geology, natural weathering
Sulfate	250 ppm		14 ppm	2 ppm	7/13/21	Geology, natural weathering
Conductivity	700 µS/cm		282 µS/cm	105 µS/cm	8/10/21	Geology, natural weathering
CONTAMINANT	STATE ACTION LEVEL	GOAL NOT TO EXCEED	90% PERCENTILE	# SAMPLES OVER STATE ACTION LEVEL	DATE OF HIGHEST LEVEL DETECTED	TYPICAL SOURCE OF CONTAMINANT
REGULATED BY THE STATE AT THE CONSUMER'S TAP						
Copper	1300 ppb	1300 ppb	749 ppb	0 samples	7/19/23	Corrosion of household plumbing or erosion of natural deposits
Lead	15 ppb	0 ppb	6.4 ppb	0 samples	7/19/23	Corrosion of household plumbing or erosion of natural deposits
CONTAMINANT	STATE ACTION LEVEL (SAL)	GOAL NOT TO EXCEED (MCLG)	HIGHEST LEVEL DETECTED	LOWEST LEVEL DETECTED	DATE OF HIGHEST LEVEL DETECTED	TYPICAL SOURCE OF CONTAMINANT
UNREGULATED CONTAMINANTS - SAMPLED AS REQUIRED BY EPA						
Bromide	unregulated		48 ppb	< 0.02 ppb	4/7/20	Geology and natural weathering, industrial and consumer products
UNREGULATED WATER CONSTITUENTS OF INTEREST FOR FISH AQUARIUMS, AND HOME BREWING⁵						
Alkalinity (mg/L as CaCO ₃)	unregulated		107	63	3/21/23	Geology, natural weathering
Total Hardness (mg/L as CaCO ₃)	unregulated		120	32	8/10/21	Geology, natural weathering
Calcium Hardness (mg/L as CaCO ₃)	unregulated		98	25	4/11/18	Geology, natural weathering
Silica	unregulated		59 ppm	33 ppm	10/4/11	Geology, natural weathering. Rarely tested
Sodium	unregulated		22 ppm	6 ppm	4/29/21	Geology, natural weathering

FOOTNOTES:

- U.S. Department of Health and Human Services recommends <0.7 ppm fluoride in drinking water.
- Highest locational running annual average was 9.65 ppb. In 2023, the highest concentrations of individual trihalomethanes were chloroform (5.8 ppb), bromoform (0.55 ppb), chlorodibromomethane (1.1 ppb), and dibromochloromethane (2.72 ppb).
- There were no detection for Haloacetic acid compounds detected in 2023.
- (PFBS)Perfluorobutanesulfonic acid; (PFPeS)Perfluoropentane sulfonic acid; (PFHxS) Perfluorohexanesulfonic acid; (PFOS)Perfluorooctanesulfonic acid; (PFBA)Perfluorobutanoic acid; (PFPeA)Perfluoropentanoic acid; (PFHxA)Perfluorohexanoic acid; (PFHpA) Perfluorohexanoic acid; (PFOA)Perfluorooctanoic acid; (PFNA)Perfluorononanoic acid.
- Ranges shown are from all 20 groundwater wells that supply the water system. Ranges in tap water at specific locations will depend on which wells serve the particular area.

DEFINITIONS:

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

CaCO₃: Calcium carbonate

EPA: U.S. Environmental Protection Agency

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 allow for a margin of safety.

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.

mg/L: Milligrams per liter

ppm: Parts per million is equivalent to milligrams per liter (m/L). One ppm is approximately equal to 1 drop in 22 gallons of water.

ppb: Parts per billion. One ppb is approximately equal to 1 drop in 22,000 gallons of water (equivalent to about 1 drop in a small swimming pool).

ppt: Parts per trillion. One ppt is approximately equal to 1 drop in 22,000,000 gallons of water (equivalent to about 1 drop in Long's Pond).

pCi/L: Picouries per liter is the unit of measure used to describe an amount of radiation.

Primary Standard: The MCL for these substances is set primarily for health reasons.

Secondary Standard: The MCL for these substances is set primarily for non-health reasons such as color, taste, or fixture staining or indirect health concerns when levels are too high.

µS/cm: Microsiemens per centimeter is a measure of electrical conductivity.

Outdoor Water Saving Tips

That Will Save Water and \$\$



- 1 Replace turf grass with Washington State native and/or drought-tolerant plants.** Add them to your existing landscaped areas too! Native plants and select perennials require less water than grass and many ornamentals. You can create a beautiful yard, conserve water, and save on your water bill while providing habitat for native bees, butterflies, and birds!
- 2 Plant grass, trees, and shrubs in the fall.** This lets your new landscaping use the rainy season to become established, rather than requiring extra watering throughout the dry summer.
- 3 Place plants that need more water in shady or low-lying areas, and drought-tolerant plants in drier areas.** Group plants with similar watering needs together to simplify your outdoor watering routine.
- 4 Repair leaks** in your sprinkling system.
- 5 Don't fertilize grass in late spring or summer.** This causes excess growth, requiring more water.
- 6 Add compost to your soil and place mulch around plants 4" deep.**
- 7 Water your lawn deeply and infrequently.** One inch of water per week is all most lawns need!
- 8 Aerate and de-thatch your lawn** if water won't penetrate the soil.
- 9 Cut it high and let it lie!** Longer grass has deeper roots, and deeper roots have better access to soil moisture. Three inches tall is ideal. Use a mulching mower and leave grass clippings on the lawn to provide it with a source of nutrients.
- 10 Accept grass's natural tendency to turn golden in the summer.** Most grass varieties in our region are "cool season" types. This means they do well in cooler weather, then go dormant during the hottest months of summer. Grass that is golden isn't dead, it's just sleeping! Watering your dormant lawn once a month is all it needs to rebound once the weather begins to cool off again.
- 11 Use a commercial car wash that recycles water to clean vehicles.**
- 12 Use a broom to sweep your driveway or sidewalk** instead of spraying it with the hose.
- 13 Water your lawn before 10 a.m. or after 7 p.m.** to reduce evaporation during the hottest hours of the day.
- 14 Adjust sprinklers to water only what grows.** If the spray is hitting sidewalks and driveways, you are wasting water and money!
- 15 If you have an irrigation system, invest in a rain sensor, smart control irrigation timers, and water efficient sprinkler heads.** Look for the **WaterSense** label for products that have been tested and approved for water efficiency.

For more information about how to conserve resources and save money on your water utility bill this summer visit epa.gov/watersense/outdoors.

Visit the National Integrated Drought Information System at drought.gov for information about current conditions.

SAVE WATER & MONEY!

Water Utility customers may be eligible for:

- **FREE Toilet Replacement** (Customers on SEPTIC)
- **\$100 Rebate** for Ultra High Efficiency Toilet (Customers on SEWER)
- **\$50 Rebate** for an ENERGY STAR Certified washing machine

Go to cityoflacey.org/water-conservation-program or call 360-438-2687 for program requirements.

FREE to Water Utility customers while supplies last!

- **Outdoor Water Saving Kit**
- **Indoor Water Saving Kit**
- **Hose Timer**
- **Soil Moisture Sensor**

Pick up items at Public Works Counter, Lacey City Hall. **Bring a copy of your Lacey Utility bill.**

Groundwater Protection

In 1995, the City of Lacey began its Wellhead Protection Program to ensure that activities and land uses do not contaminate groundwater quality. This is important because all of our drinking water comes from groundwater, as does most drinking water in Thurston County. Our drinking water can become contaminated if harmful substances sink through the soil and end up in our underground aquifers.

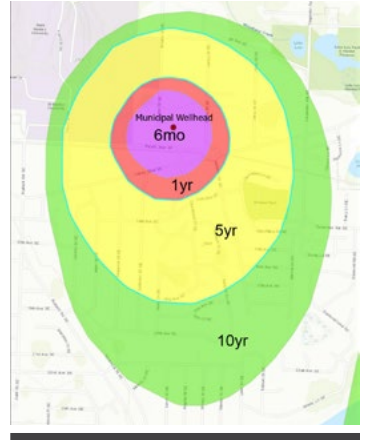
The Wellhead Protection Area illustration on the right shows how long it takes groundwater to travel through the underground aquifer to reach the wellhead. For example, groundwater in the yellow area takes 5 years to reach the drinking water well. Everyone can help protect our drinking water by proper use, storage and disposal of harmful substances within Wellhead Protection Areas.

Septic systems can be a source of groundwater contamination if not properly used and maintained. It is important for septic system owners to perform regular system maintenance to prevent groundwater contamination and protect the quality of our drinking water. **Want to connect to sewer? For information about the LOTT Clean Water Alliance REBATE of 50–75% off the connection fee, contact WaterResources@cityoflacey.org or 360-491-5600.**

To report a spill or if you suspect someone is dumping contaminants, call 360-491-5644 or go to [LaceyWorks](http://LaceyWorks.com) at cityoflacey.org/laceyworks.

WELL HEAD PROTECTION AREA

Time of Travel:
Groundwater to Wellhead



Thank you to all members of our Water Utility Team!

They work hard every day to deliver clean, safe drinking water for our community.

Ali Brown, Water Resources Specialist

Ali Brown joined the City of Lacey as a Water Resources Specialist in 2023. Her role focuses on stormwater pollution prevention, water resource management,



habitat restoration, and community engagement. Her background in stormwater facilities management, riparian restoration, and Pacific salmonid research support her in delivering science-backed messaging to protect salmon and Puget Sound. She works as a member of Stream Team of Thurston County to deliver educational information on protecting water resources in south Puget Sound and beyond. In her free time, Ali enjoys fishing, backpacking, swimming, and hiking with her husband Dyami and pup Elijah.

Jesse Eang, Utility Locator

Jesse Eang came to the City of Lacey as a Utility Locator in 2019, performing utility locates for City-owned water, sewer, storm, and electrical lines. Now as part of



the water repair crew, he performs valve and hydrant maintenance, water service and mainline repairs, and operation of various equipment and tools for that job. Since Jesse was hired he has received his Commercial Driver's License (CDL), Water Distribution Manager Certification (WDM1) and Cross Connection Specialist certification (CCS). In his spare time Jesse enjoys spending time with his family, exercising at the gym, fishing, and all types of outdoor activities.



LACEY

Water Resources
420 College St. S.E.
Lacey, WA 98503

Join Stream Team

Lacey Stream Team helps protect and enhance water resources through community education and action. In 2023, 911 Stream Team volunteers donated over 1142 hours to our community through stream re-vegetation projects, stream monitoring, litter clean up, storm drain marking, and other activities. Visit streamteam.info for more information or to sign up for an upcoming volunteer opportunity. You can help enhance our beautiful natural resources. It's rewarding and fun!



Understanding PFAS

The City of Lacey, along with all large public water systems in the United States, have begun testing our water sources for 29 different per- and polyfluoroalkyl substances (PFAS) chemicals as required by the U.S. Environmental Protection Agency (EPA). This testing helps us understand the levels of these chemicals found in the nation's drinking water systems. The data collected will help the EPA make decisions on actions needed to protect public health. The City sampled in December 2023 and will sample again in June 2024. All current detections are included in this Consumer Confidence Report and will continue to be reported in future editions. On April 10, 2024, EPA announced the final National Primary Drinking Water Regulation for six PFAS which established legally enforceable levels, called Maximum Contaminant Levels (MCLs). Detectable levels of PFAS from sampling done by the City of Lacey are below all MCLs.

Additional information regarding PFAS and regulations concerning them can be found at:

- doh.wa.gov/community-and-environment/contaminants/pfas
- epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas

Contact Us

- To report problems about Lacey's water system, call **360-491-5644**.
- For utility bill questions, call **360-491-5616**.
- EPA Safe Drinking Water Hotline: **1-800-426-4791** or visit the EPA Office of Water Homepage at epa.gov/aboutepa/about-office-water.

City of Lacey Spills Hotline

- See a spill or water quality concern? Report it!
- Call **360-491-5644**
- Go to cityoflacey.org/laceyworks