

2023

CITY OF SPOKANE WATER DEPARTMENT WATER QUALITY REPORT



We take our water quality very seriously. Last year the City collected more than 2,000 samples to ensure our water is as clean as possible. In line with years past, **your drinking water meets or exceeds all water quality standards**, providing reliable, high-quality drinking water. This couldn't happen without the essential employees who keep it flowing, 24 hours a day, 365 days a year.

The City of Spokane's Water Department **delivers up to 150 million gallons of clean, safe drinking water every day to more than 249,000 people** in the community. The City's water system is the third largest in the state of Washington based on the number of connections behind Seattle and Tacoma. Our water system includes pumps, reservoirs, seven source wells, and more than 1,000 miles of water mains and smaller water lines that bring water from our wells to homes and businesses.

DETECTED CONTAMINANTS

The results of monitoring in 2023 are shown in the table below. These results are for parameters regulated by Federal and State agencies. For other water quality information, check our website: SpokaneWater.org or call 509-742-8166.

Contaminant	Units	MCLG	MCL	Average	Range	Possible Source
SOURCE WATER TESTING						
Arsenic	µg/L	0	10	(a)	2.4 to 2.5	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	mg/L	2	2	(a)	0.01 to 0.02	Erosion of natural deposits; Discharge of drilling waste; Discharge from metal refineries
Nitrate	mg/L	10	10	(a)	0.67 to 2.83	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Combined Radium 226 & 228 (b)	pCi/L	0	5	(a)	1.5 to 1.5	Erosion of natural deposits
END OF PIPE TESTING						
Total Trihalomethanes	µg/L	0	80	3.39	0.64 to 4.28	By-product of drinking water disinfection

LEAD & COPPER

During 2021, the City tested 65 at-risk residences for lead. The single highest result in 2021 was 5.46 ppb. This result for lead is below the 15 ppb Action Level for lead. In 2018, the City completed the removal of all known lead service lines in our water system. Source water is analyzed for lead concurrent with in-home testing; in 2021 the maximum concentration of all the wells was less than 1.0 ppb.

Contaminant	Units	MCLG	MCL	90th Percentile	Houses Exceeding AL	Possible Source
HOUSEHOLD WATER TESTING						
Copper(b) -tested August 2021	mg/L	1.3	TT, AL=1.3	0.08 (d)	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead(b) -tested August 2021	µg/L	0	TT, AL=15	1.83(d)	0	Corrosion of household plumbing systems; Erosion of natural deposits

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UPDATED PFAS REGULATIONS

Concerns about “forever” chemicals, also known as PFAS, in our environment, have grown in recent years. Perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are found in products that are used to repel water, resist stains and grease and smother fires. They can be found in well-known items such as fire-fighting foam, carpet, clothing, cookware, and packaging, etc. Epidemiological studies of human populations indicate that exposure to PFOS and PFOA over certain levels may result in adverse health effects.

The **State of Washington, was a leader in the nation and set action levels for PFOS/PFOA** that went into effect in 2022. In 2023, the City of Spokane started testing for these substances under the new rules. The U.S. Environmental Protection Agency (EPA) announced regulations for PFAS in April of 2024 at much lower levels than State of Washington standards. More information can be found on the state Department of Health’s [PFAS in Drinking Water Dashboard](#).

City of Spokane **has had low-level detections of these chemicals at two well locations that are well below the state’s action levels, and just above the recently announced EPA standards.** Test results from all other well sites indicated no detection. Follow-up testing continues at contaminated well sites while ongoing testing happens at all wells. Additionally, the City is supporting the Spokane Aquifer Joint Board with an investigation of potential sources of contamination.



The City of Spokane is also taking action as part of its commitment to protect the community’s drinking water by joining a lawsuit against manufacturers responsible for PFAS/PFOA contamination.

In April 2024, the City filed a complaint as part of a larger lawsuit over these harmful chemicals. The complaint lists 11 causes of action, including product liability and negligence against 3M, DuPont and others.

2023 PFAS TESTING RESULTS						
	Ray St. Well	Ray St. Well	Ray St. Well	Ray St. Well	Grace Well	Grace Well
Compound	3/20/2023	4/25/2023	7/25/2023	10/24/2023	3/22/2023	4/25/2023
PFOA	2.75	2.97	non-detect	2.82	non-detect	non-detect
PFOS	4.44	4.74	3.58	4.90	2.01	2.11
PFBS	2.89	2.90	2.22	3.49	non-detect	non-detect
PFHxA	2.85	2.82	non-detect	2.70	non-detect	non-detect
PFPeA	2.90	2.83	non-detect	2.99	non-detect	non-detect
Measurements in part per trillion (ppt)						

This report contains important information about the drinking water supplied by the City of Spokane. Translate it, or speak with someone who understands it well.

Вэтом отчете содержится важная информация относительно питьевой воды, поставляемой службой города Спокэн. Переведите этот отчет или поговорите с тем, кто его хорошо понимает.

Este contiene información importante acerca del agua potable suministrada por la Ciudad de Spokane. Tradúzcalo, o hable con alguien que lo entienda bien.

Bản phúc trình này chứa đựng những thông tin quan trọng về nước uống được cung cấp bởi City of Spokane. Hãy phiên dịch, hay hỏi thăm người nào hiểu rõ về tài liệu này.

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OUR (GROUND)WATER SOURCE

All of the water in Spokane comes from an underground aquifer—the Spokane Valley-Rathdrum Prairie (SVRP) Aquifer, which was designated a sole source aquifer in 1978.

The SVRP Aquifer was created by Ice Age floods that deposited a thick layer of boulders and gravel. This rock and gravel layer is now filled with water and extends 370 square miles from Pend Oreille Lake in Idaho to just past the western edge of the City of Spokane. It ranges in surface depth from a few feet in some areas to as much as 500 feet in others.

We are working and living over our drinking water source. Since our water is beneath us, it is important that we follow good stewardship practices and not pour anything on the ground or in storm drains that we would not want to drink.



WATER SYSTEM DYNAMICS

The City of Spokane has seven well stations located throughout the City to draw drinking water directly from the aquifer. The water from the aquifer is pure enough to be pumped directly from the ground and sent to customers without any treatment. We add chlorine to the water to ensure that purity is maintained throughout the distribution system.

PUMP & BOOST

To move the water to higher elevations, storage tanks and reservoirs, booster stations are located throughout the city. These stations contain large pumps and motors to help move the well water from lower elevations to the tanks at higher elevations within the distribution system. Water at a higher elevation in a tank provides water pressure to the homes below it.



A peek inside our 10 MG Rockwood Vista storage tank.

PIPES & STORAGE

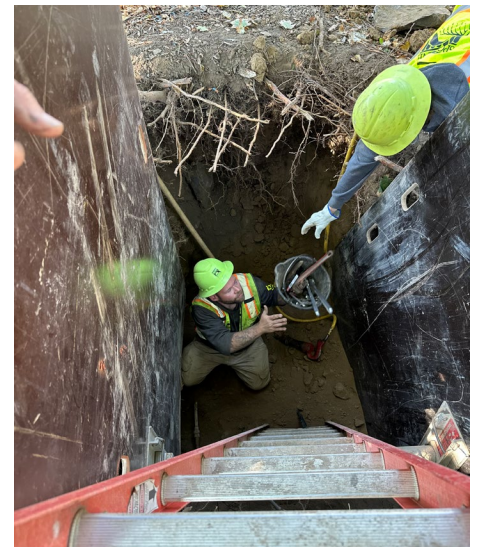
More than 1,000 miles of water mains are located throughout the City. Water reaches your house directly from service lines running off smaller mains. To meet customers' needs, the City has over 100 million gallons of water stored in reservoirs. The amount of water stored in a given tank depends on both the water demand for that area as well as the fire protection requirements.

WATER QUALITY ASSURANCE

Throughout the year, hundreds of water quality tests are performed; water mains, valves and meters are repaired and replaced, and Water Department personnel continually search for leaks and problems to ensure you the highest quality drinking water possible. Expertly trained operators monitor the distribution system from a 24-hour control center.

COMMUNITY PARTICIPATION

The Mayor recommends Water Department policy and rates to the Spokane City Council. The Council meets in person and virtually every Monday, excluding holidays, at 6:00 p.m. Visit the [City Council webpage](#) for more information.



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POTENTIAL SOURCES OF WATER CONTAMINATION

Sources of Water

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 land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances from the presence of animals or from the presence of human activity.

Potential Contaminants

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations which limit the amount of certain contaminants in the water provided by public water systems. U.S. Food and Drug Administration regulations establish the limits for contaminants in bottled water, which must provide the same protection for public health.

All 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.

More information about contaminants can be obtained by visiting the EPA's Safe Drinking Water Website: epa.gov/safewater

People Who May be More at Risk

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, transplant recipients, persons with HIV/AIDS or other immune disorders, some elderly and infants can be particularly at risk for infection. These people should seek advice from their health care providers.

The U.S. EPA - Center for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline (800-426-4791) and website: epa.gov/safewater

ARSENIC

City of Spokane drinking water currently meets EPA's revised drinking water standard for arsenic. However, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water.

EPA continues to research the health effects of low levels of arsenic, which is known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Information on arsenic in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline.

LEAD

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. In 2018, the City of Spokane completed the removal of all known lead service lines in our water system. The City is responsible for providing high quality drinking water, but cannot control the variety of materials installed prior to regulatory changes in home 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 two minutes before using water for drinking or cooking. 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 epa.gov/safewater/lead.

RADON

Radon is a naturally occurring radioactive gas that is common in the Spokane area. During 2022, the City conducted tests from three source wells for Radon-222. The single highest result was 420 pCi/L and the lowest was 410 pCi/L. Exposure to excessive amounts of radon may increase cancer risk. The EPA has proposed a MCL of 300pCi/L, which has not been finalized.

Compared to radon entering the home through soil, radon entering the home through tap water would, in most cases, typically be 1-2% of the radon in indoor air. Breathing air containing radon can lead to lung cancer and/or drinking water containing radon also may cause increased risk of stomach cancer. If you are concerned about radon in your home, you can purchase a test kit. Testing is inexpensive and easy, many radon test kits can be found online or in home improvement stores.

For more information concerning radon in your home, call the EPA's Radon Hotline (1-800-55-RADON) or visit epa.gov/radon/radon-hotlines-and-information-resources.

TERMS AND ABBREVIATIONS

Some of the terms and abbreviations contained in this report are unique to the water industry and might not be familiar to all customers. Terms used in the table are explained below.

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

LRAA: Locational Running Annual Average

Maximum Contaminant Level (MCL): The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLG 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.

ppb: same as ug/L, micrograms per liter, and parts per billion

ppm: same as mg/L, milligrams per liter, and parts per million

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Picocuries per liter (pCi/L): a measure of radioactivity.

ND: None Detected

NOTES

- Compliance with MCL is determined by single sample results, so no average is used.
- Gross Alpha results were used in lieu of Radium 226, one half of the detection limit of 3.0 was used for the ND.
- Faucet samples were from 'at risk' homes (those with lead service lines and those with copper pipes with lead solder joints).
- 90% of at-risk homes had this concentration, or less, of lead/copper.
- Unregulated contaminant monitoring help's EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future.

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