WATER QUALITY REPORT 2025

Includes information about Prince William Water's:

- Bull Run Mountain and Evergreen System 6153050
- East System 6153600
- West System 6153251
- Hoadly Manor 6153323
- Carter's Grove 6153082

PRINCE WILLIAM WATER

Your Water • Your Environment • Our Mission

Table of Contents

A Message from the General Manager

Dear Valued Customer,

Water is a precious resource, and it is essential for all life.

At Prince William Water, we know you and your family rely on our service every day— for drinking, cooking, showering, caring for your pets, gardening and other basic household needs. That's why we are mission-driven and customer-first focused.

As you will see in this Water Quality Report, Prince William Water continued to meet or exceed state and federal regulatory requirements for calendar year 2024, the most recent regulatory period. These high standards align with our mission to protect public health and the environment by reliably providing clean, safe and dependable water and wastewater reclamation services to our community.

We are also looking to the future, focused on compliance with regulatory requirements that will take effect in the next few years, such as the Revised Lead and Copper Rule and regulatory limits for PFAS, or "forever chemicals." Be assured that Prince William Water will continue to provide a product that meets all regulatory requirements.

We hope you will take time to review the enclosed report, which includes useful information about the source, quality and characteristics of your drinking water. As your water and wastewater utility, we take pride in being environmental leaders and providing exceptional service to Prince William County.

Sincerely,

Calvin D. Farr, Jr., P.E.
General Manager/CEO

Sources of Your Drinking Water

Depending on the area where you live, your source water is withdrawn from the Occoquan Reservoir, the Potomac River, Lake Manassas, or one of six groundwater wells located throughout the Bull Run Mountain and Evergreen Water System. These water sources are protected by Fairfax Water, the City of Manassas, Prince William Water, as well as federal, state and local authorities.

Occoquan Reservoir

Before being consumed as drinking water, source water withdrawn from the Occoquan Reservoir undergoes advance treatment processes at Fairfax Water's Fredrick P. Griffith, Jr. Water Treatment Plant.

The Occoquan Reservoir supplies an average of 15 million gallons of water a day to Prince William Water customers in eastern Prince William County, which includes Carter's Grove, Hoadly Manor and the East System. The 2,100-acre reservoir also serves as a recreational area that welcomes small boats and fishing.

Potomac River

Source water from the Potomac River undergoes advanced treatment at Fairfax Water's James J. Corbalis, Jr. Water Treatment Plant in northern Fairfax County and supplies more than nine million gallons of water a day to residents in Prince William Water's West system.

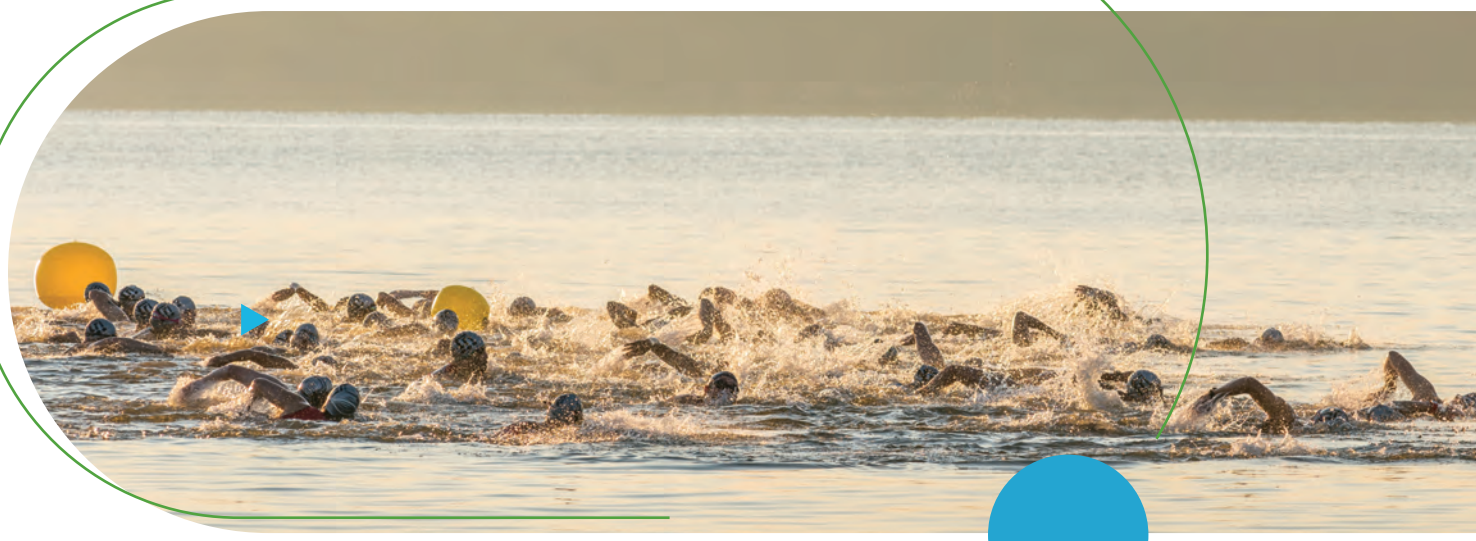
Lake Manassas

Lake Manassas, another water source for the West System, provides nearly five million gallons of water a day and is treated by the City of Manassas.

Public Wells

Six groundwater wells located throughout the Bull Run Mountain and Evergreen Water System provides an average of 92,000 gallons of water per day for customers living on Bull Run Mountain and in Evergreen. Prince William Water has operated the groundwater well system since 1990.

Prince William Water routinely tests the quality of the water at multiple points throughout the distribution system.



Source Water Assessment Summary

Under the provisions of the federal Safe Drinking Water Act, states are required to develop comprehensive source water assessment programs that meet the following requirements:

Identify the watersheds that supply public tap water.

Provide a list of contaminants present in the watershed.

Assess susceptibility to contamination in the watershed.

Fairfax Water conducted the most recent source water assessment for the Occoquan Reservoir and the Potomac River. Virginia Department of Health (VDH) conducted the most recent source water assessment for Lake Manassas.

These assessments consist of maps of the elevated watershed area, an inventory of known land use activities and documentation of any potential source of water contamination within the last five years.

VDH conducted the source water assessment for Bull Run Mountain/ Evergreen well that identified sources of contamination that could potentially impact the drinking water, such as septic systems and drainage from certain land use activities.

However, the wells are constructed to a standard that guards the water against contamination from activities above ground. As mentioned elsewhere in this report, Prince William Water water continues to meet all federal and state requirements.

Based on the criteria developed by the Commonwealth of Virginia, the Occoquan Reservoir, the Potomac River and Lake Manassas were determined to be highly susceptible to contamination. This determination is consistent with the state's findings of other surface waters (rivers, lakes and streams) throughout Virginia.
Drilled groundwater wells, such as those in the Bull Run Mountain and Evergreen Water System, can be susceptible to contamination if sources of contamination exist within the recharge area of the well, and if geology and well construction could allow that contamination to enter the source.

Prince William Water is committed to protecting its drinking water sources. If you observe illegal dumping of waste motor oil and other potential contaminants, report it immediately to our Regulatory Affairs Office (contact information below). Please keep the safety of your water supply in mind when applying fertilizer, herbicides and pesticides to your lawn or when disposing of chemicals. For more information about the sources of your water or a copy of the Source Water Assessment, contact the Regulatory Affairs Office at **(703) 331-4162** or **water_quality@pwwater.org**.

Prince William Water also administers Designated Hydrant Withdrawal and Cross-Connection Control programs to protect the water distribution system from contamination. These programs prevent backflow into the distribution system. Prince William Water closely supervises its infrastructure and operations in order to provide reliable water service to its customers throughout Prince William County.

Cryptosporidium Information

Cryptosporidium is a microbial pathogen sometimes found in surface waters throughout the United States. Prince William Water purchases drinking water on a wholesale basis from Fairfax Water and the City of Manassas, which consistently maintain their filtration processes in accordance with regulatory guidelines to maximize removal efficiency and reduce any risk of infection by this organism.

Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants, small children and the elderly are at greater risk of developing a life-threatening illness. Prince William Water encourages immunocompromised individuals to consult their doctor regarding appropriate precautions to avoid infection.

Cryptosporidium infections may be spread through means other than drinking water, such as other people, animals, water, swimming pools, fresh food, soils and any surface that has not been sanitized after exposure to feces.

The Environmental Protection Agency (EPA) created the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) to increase protection against microbial pathogens, such as Cryptosporidium. Under that rule, the average Cryptosporidium concentration that determines whether additional treatment measures are needed is 0.075 oocysts per liter. Cryptosporidium oocysts are the infection form of the parasite.

Fairfax Water and the City of Manassas began LT2ESWTR Round 2 monitoring programs in April 2015 and involved the collection of one sample from water treatment plant sources each month for a period of two years. Monitoring for compliance with the LT2ESWTR Round 2 was completed in March 2017.

Cryptosporidium concentrations were below the EPA action level of 0.075 oocysts per liter for both.

This was the latest assessment for cryptosporidium by Fairfax Water and the City of Manassas.

Lead in Drinking Water

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. Prince William Water is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water.

If you are concerned about lead in your water and wish to have your water tested, contact Prince William Water at (703) 331-4162. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Prince William Water completed a service line inventory in 2024 for our five distribution systems. The inventories can be found at https://bit.ly/43EyYpa. All water distribution systems and service lines owned and maintained by Prince William Water are non-lead.

Special Precautions

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as people with cancer undergoing chemotherapy, individuals who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, senior citizens and infants can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers. EPA guidelines about reducing the risk of infection by microbial contaminants can be obtained by calling the **EPA Safe Drinking Water Hotline** at (800) 426-4791.

Potential Contaminants in Source Water

Sources of tap 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 animal or human activity.

- Inorganic contaminants such as salts and metals which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- Microbial contaminants, such as viruses and urban bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amounts of certain contaminants in water provided by public water systems. Please note that drinking water may contain small amounts of some contaminants. The presence of these contaminants does not necessarily indicate a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA Safe Drinking and Water Hotline at (800) 426-4791.**

Water Quality Tables

Bull Run Mountain and Evergreen (BRME): 6153050 — Regulated Substances 2024

Substance (Units)	Year Sampled	MCLG	MCL	Amount Detected	Range Low-High	Violation	Typical Source
Barium (ppm)	2023	2	2	0.29	ND-0.29	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.

Metals testing is conducted every 3 years in accordance with the Virginia Waterworks Regulations.

Nitrate [as Nitrogen] (ppm)	2024	10	10	0.54	ND-0.54	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.

Substance (Units)	Year Sampled	MCLG	MCL	Amount Detected	Range Low-High	Violation	Typical Source
Fluoride (ppm)	2023/2024	4	4	0.05	ND-0.17	No	Naturally occuring fluoride, promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.

Substance (Units)	Year Sampled	MCLG	MCL	Amount Detected	Range Low-High	Violation	Typical Source
Combined Radium (pCi/L)	2023	0	5	1.17	ND - 1.17	No	Erosion of natural deposits.
Beta Photon Emitters (pCi/L)	2023	0	50	3.95	ND-3.95	No	Decay of natural and manmade deposits.

Testing for radiological substances, such as Alpha Emitters and Beta Photon Emitters, is conducted every 9 years in accordance with the Virginia Waterworks Regulations.

Substance (Units)	Year Sampled	MCLG	AL	90th Percentile Result	Sites Above AL	Violation	Typical Source
Copper (ppm)	2023	1.3	1.3	1.2	0	No	Corrosion of household plumbing.
Lead (ppb)	2023	0	15	4.6	0	No	Corrosion of household plumbing.

Lead and copper testing is conducted every 3 years in accordance with the Virginia Waterworks Regulations.

BRME 6153050: Unregulated Substances 2024

Substance (Units)	Year Sampled	MCLG	MCL	Amount Detected	Range	Violation	Typical Source
Sodium (ppm)	2023/2024	N/A	NA	22.9	6.54 - 41.1	No	Runoff of road deicing chemicals; erosion of natural deposits.

Microbiological Testing: *No E. coli was detected in the water system during calendar year 2023.*

East System: 6153600 — Regulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.019	ND	0.041	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beta Photon Emitters (pCi/L) Data obtained in 2019	0	50	2.63	2.63	2.63	No	Decay of natural and manmade deposits.
Fluoride (ppm)	4	4	0.66	0.11	0.78	No	Added to drinking water to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate [as Nitrogen] (ppm)	10	10	1.10	0.57	2.12	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.
Nitrite [as Nitrogen] (ppm)	10	10	0.002	ND	0.015	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.

Substance (Units)	MRDLG	MRDL	Highest Quarterly Running Annual Average	Minimum	Maximum	Violation	Typical Source
Chlorine (ppm)	4	4	3.0	0.6	4.0	No	Disinfectant added to drinking water to control bacteria and microbes.

Substance (Units)	MCLG	MCL	Highest Quarterly Running Annual Average	Minimum	Maximum	Violation	Typical Source
Haloacetic Acids [HAAs] (ppb)	N/A	60	19.6	ND	23.0	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	30.4	6.83	38.5	No	Byproduct of drinking water disinfection.

Substance (Units)	MCLG	AL	90th Percentile Result	Sites Above AL	Maximum	Violation	Typical Source
Copper (ppm)	1.3	1.3	0.13	0	N/A	No	Corrosion of household plumbing.
Lead (ppb)	0	15	ND	0	N/A	No	Corrosion of household plumbing.

Lead and copper samples were collected in 2023. Lead and copper testing is conducted every 3 years in accordance with the Virginia Waterworks Regulations.

Substance (Units)	MCLG	MCL	Quarterly Running Annual Average Ratio	Minimum	Maximum	Violation	Typical Source
Total Organic Carbon (removal ratio)	N/A	TT	1.4	1.4	1.6	No	Naturally present in the environment.

The Quarterly Running Annual Average (QRAA) is the monthly ratio of actual Total Organic Carbon removal versus required Total Organic Carbon removal between source water and treated water. The QRAA must be greater than or equal to 1.0 to meet Virginia Department of Health regulatory requirements.

Total Organic Carbon has no health effects. However, it provides a medium for the formation of disinfection byproducts such as trihalomethanes and haloacetic acids. Compliance with the treatment technique reduces the formation of disinfection byproducts.

Substance (Units)	MCLG	MCL	Highest Single Measurement	Lowest Monthly % Samples Meeting the Treatment Technique Turbidity Limit	Violation	Typical Source
Turbidity (NTU)	N/A	TT	0.13	100%	No	Erosion of cleared and excavated land.

Nephelometric Turbidity Units (NTU) must be less than or equal to 0.3 in at least 95% of the samples in any month and must never exceed 1.0.

East System 6153600: Unregulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	33.9	22.6	44.2	No	Runoff of road deicing chemicals; erosion of natural deposits.

Microbiological Testing: *No E. coli was detected in the water system during calendar year 2024.*

West System 6153251 — Regulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.033	0.026	0.043	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	4	4	0.59	0.42	0.75	No	Added to drinking water to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate [as Nitrogen] (ppm)	10	10	0.92	0.22	1.36	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.
Nitrite [as Nitrogen] (ppm)	1	1	0.16	ND	0.03	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.

Substance (Units)	SMCL	Amount Detected	Violation	Typical Source
Aluminum	0.05 to 0.2 mg/L	0.04	No	Disinfectant added to drinking water to control bacteria and microbes.

Substance (Units)	MRDLG	MRDL	Highest Quarterly Running Annual Average	Minimum	Maximum	Violation	Typical Source
Chlorine (ppm)	4	4	3.1	0.6	4.2	No	Disinfectant added to drinking water to control bacteria and microbes.

Substance (Units)	MCLG	MCL	Highest Quarterly Running Annual Average	Minimum	Maximum	Violation	Typical Source
Haloacetic Acids [HAAs] (ppb)	N/A	60	30.8	ND	33.0	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	41.0	7.31	68.0	No	Byproduct of drinking water disinfection.

Substance (Units)	MCLG	AL	90th Percentile Result	Sites Above AL	Maximum	Violation	Typical Source
Copper (ppm)	1.3	1.3	0.18	0	N/A	No	Corrosion of household plumbing.
Lead (ppb)	0	15	ND	0	N/A	No	Corrosion of household plumbing.

Lead and copper samples were collected in 2023. Lead and copper testing is conducted every 3 years in accordance with the Virginia Waterworks Regulations.

Substance (Units)	MCLG	MCL	Quarterly Running Annual Average Ratio	Minimum	Maximum	Violation	Typical Source
Total Organic Carbon (removal ratio)	N/A	TT	1.6	1.2	2	No	Naturally present in the environment.

Total Organic Carbon has no health effects. However, it provides a medium for the formation of disinfection byproducts such as trihalomethanes and haloacetic acids. Compliance with the treatment technique reduces the formation of disinfection byproducts.

The Quarterly Running Annual Average (QRAA) is the monthly ratio of actual Total Organic Carbon removal versus required Total Organic Carbon removal between source water and treated water. The QRAA must be greater than or equal to 1.0 to meet Virginia Department of Health regulatory requirements.

Substance (Units)	MCLG	MCL	Highest Single Measurement	Lowest Monthly % Samples Meeting the Treatment Technique Turbidity Limit	Violation	Typical Source
Turbidity (NTU)	N/A	TT	0.19	100%	No	Erosion of cleared and excavated land.

Nephelometric Turbidity Units (NTU) must be less than or equal to 0.3 in at least 95% of the samples in any month and must never exceed 1.0.

West System 6153251: Unregulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	18.1	12.9	20.4	No	Runoff of road deicing chemicals; erosion of natural deposits.

***Microbiological Testing**: No E. coli was detected in the water system during calendar year 2024.*

Hoadly Manor 6153323 — Regulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.019	ND	0.041	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beta Photon Emitters (pCi/L) Data obtained in 2019	0	50	2.63	2.63	2.63	No	Decay of natural and manmade deposits.
Fluoride (ppm)	4	4	0.66	0.11	0.78	No	Added to drinking water to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate [as Nitrogen] (ppm)	10	10	1.10	0.57	2.12	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.
Nitrite [as Nitrogen] (ppm)	10	10	0.002	ND	0.015	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.

Substance (Units)	MRDLG	MRDL	Highest Quarterly Running Annual Average	Minimum	Maximum	Violation	Typical Source
Chlorine (ppm)	4	4	2.0	0.6	2.3	No	Disinfectant added to drinking water to control bacteria and microbes.

Substance (Units)	MCLG	MCL	Year Sampled	Amount Detected	Range Low–High or Maximum	Violation	Typical Source
Haloacetic Acids [HAAs] (ppb)	N/A	60	2024	7.5	7.5	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	2024	20.9	20.9	No	Byproduct of drinking water disinfection.

Substance (Units)	MCLG	AL	90th Percentile Result	Sites Above AL	Maximum	Violation	Typical Source
Copper (ppm)	1.3	1.3	ND	0	NA	No	Corrosion of household plumbing.
Lead (ppb)	0	15	ND	0	NA	No	Corrosion of household plumbing.

Lead and copper samples were collected in 2023. Lead and copper testing is conducted every 3 years in accordance with the Virginia Waterworks Regulations.

Hoadly Manor 6153323 (Continued from previous page)

Substance (Units)	MCLG	MCL	Quarterly Running Annual Average Ratio	Minimum	Maximum	Violation	Typical Source
Total Organic Carbon (removal ratio)	N/A	TT	1.4	1.4	1.6	No	Naturally present in the environment.

Total Organic Carbon has no health effects. However, it provides a medium for the formation of disinfection byproducts such as trihalomethanes and haloacetic acids. Compliance with the treatment technique reduces the formation of disinfection byproducts.

The Quarterly Running Annual Average (QRAA) is the monthly ratio of actual Total Organic Carbon removal versus required Total Organic Carbon removal between source water and treated water. The QRAA must be greater than or equal to 1.0 to meet Virginia Department of Health regulatory requirements.

Substance (Units)	MCLG	MCL	Highest Single Measurement	Lowest Monthly % Samples Meeting the Treatment Technique Turbidity Limit	Violation	Typical Source
Turbidity (NTU)	N/A	TT	0.13	100%	No	Erosion of cleared and excavated land.

Nephelometric Turbidity Units (NTU) must be less than or equal to 0.3 in at least 95% of the samples in any month and must never exceed 1.0.

Hoadly Manor 6153323: Unregulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	33.9	22.6	44.2	No	Runoff of road deicing chemicals; erosion of natural deposits.

Microbiological Testing: *No E. coli was detected in the water system during calendar year 2024.*

Carter's Grove 6153082 — Regulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.019	ND	0.041	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beta Photon Emitters (pCi/L) Data obtained in 2019	0	50	2.63	2.63	2.63	No	Decay of natural and manmade deposits.
Fluoride (ppm)	4	4	0.66	0.11	0.78	No	Added to drinking water to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate [as Nitrogen] (ppm)	10	10	1.10	0.57	2.12	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.
Nitrite [as Nitrogen] (ppm)	1	1	0.002	ND	0.02	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.
Substance (Units)	**MRDLG**	**MRDL**	**Highest Quarterly Running Annual Average**	**Minimum**	**Maximum**	**Violation**	**Typical Source**
Chlorine (ppm)	4	4	2.1	0.6	2.2	No	Disinfectant added to drinking water to control bacteria and microbes.
Substance (Units)	**MCLG**	**MCL**	**Year Sampled**	**Amount Detected**	**Range Low-High or Maximum**	**Violation**	**Typical Source**
Haloacetic Acids [HAAs] (ppb)	N/A	60	2024	4.9	4.9	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	2024	17.3	17.3	No	Byproduct of drinking water disinfection.
Substance (Units)	**MCLG**	**AL**	**90th Percentile Result**	**Sites Above AL**	**Maximum**	**Violation**	**Typical Source**
Copper (ppm)	1.3	1.3	0.06	0	NA	No	Corrosion of household plumbing.
Lead (ppb)	0	15	ND	0	NA	No	Corrosion of household plumbing.

Lead and copper samples were collected in 2023. Lead and copper testing is conducted every 3 years in accordance with the Virginia Waterworks Regulations.

Substance (Units)	MCLG	MCL	Quarterly Running Annual Average Ratio	Minimum	Maximum	Violation	Typical Source
Total Organic Carbon (removal ratio)	N/A	TT	1.4	1.4	1.6	No	Naturally present in the environment.

Total Organic Carbon has no health effects. However, it provides a medium for the formation of disinfection byproducts such as trihalomethanes and haloacetic acids. Compliance with the treatment technique reduces the formation of disinfection byproducts.

The Quarterly Running Annual Average (QRAA) is the monthly ratio of actual Total Organic Carbon removal versus required Total Organic Carbon removal between source water and treated water. The QRAA must be greater than or equal to 1.0 to meet Virginia Department of Health regulatory requirements.

Substance (Units)	MCLG	MCL	Highest Single Measurement	Lowest Monthly % Samples Meeting the Treatment Technique Turbidity Limit	Violation	Typical Source
Turbidity (NTU)	N/A	TT	0.13	100%	No	Erosion of cleared and excavated land.

Nephelometric Turbidity Units (NTU) must be less than or equal to 0.3 in at least 95% of the samples in any month and must never exceed 1.0.

Carter's Grove 6153082: Unregulated Substances 2024

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	33.9	22.6	44.2	No	Runoff of road deicing chemicals; erosion of natural deposits.

Microbiological Testing: *No E. coli was detected in the water system during calendar year 2024.*

Unregulated Contaminant Monitoring

Every five years, the Environmental Protection Agency (EPA) reviews and selects a list of unregulated contaminants for public water systems to monitor. This study benefits the environment and public health by providing valid data on the occurrence of these contaminants in drinking water.

The EPA uses this data to develop regulatory decisions for emerging contaminants. This requirement is mandatory for all public water systems that serve more than 10,000 customers.

During 2024, Prince William Water participated in the Unregulated Contaminant Monitoring Rule 5, (UCMR5) for the East and West distribution systems. Staff collected samples from each system's main entry point.

UCMR5 required monitoring for 29 per- and polyfluoroalkyl substances (PFAS) and lithium in drinking water.

On April 10, 2024, the EPA announced the final National Primary Drinking Water Regulation (NPDWR) for six PFAS that are among the 29 PFAS being monitored in UCMR5. The NPDWR will go into effect in 2031, and Prince William Water will need to be in compliance with the new regulation for PFAS.

Unregulated Substances Table 2024: East System (6153600)

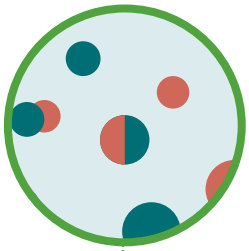
Substance (Units)	Sample Year	Average	Minimum	Maximum
Perfluorohexanoic Acid (PFHxA) (ppt)	2024	3.9	1.5	9.3
perfluoropentanoic acid (PFPeA) (ppt)	2024	4.3	1.9	10
perfluorobutanoic acid (PFBA) (ppt)	2024	2.7	ND	7.6
perfluorobutanesulfonic acid (PFBS)	2024	4.7	ND	7.4
perfluoroheptanoic acid (PFHpA) (ppt)	2024	4.1	ND	6.6
perfluorooctanoic acid (PFOA) (ppt)	2024	5.0	ND	7.9
perfluorooctanesulfonic acid (PFOS) (ppt)	2024	4.0	ND	6.3

Unregulated Substances Table 2024: West System (6153251)

Substance (Units)	Sample Year	Average	Minimum	Maximum
Perfluorohexanoic Acid (PFHxA) (ppt)	2024	0.9	ND	3.6
Perfluoro-3-methoxypropanoic Acid (PFMPA) (ppt)	2024	1.3	ND	5.0

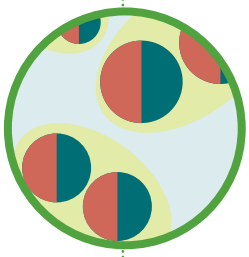
Coagulation

After water is withdrawn from the river or lake, a substance is added to cause particles to bind to each other in liquid.



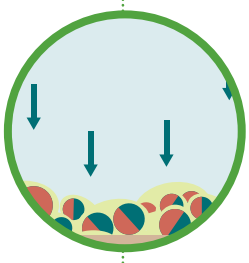
Flocculation

Particles in the water clump together and form clusters called flocs.



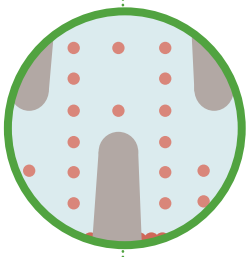
Sedimentation

The clusters sink as they get bigger and heavier.



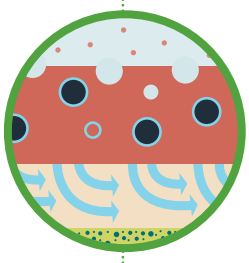
Ozonation

Ozone is bubbled into the water as a primary disinfectant to destroy bacteria and other microorganisms and improve taste.



Filtration

The water is filtered using granular activated carbon to remove any remaining particles.



Chlorination

Chlorine is added as a secondary disinfectant to ensure the water stays fresh all the way to the tap.

Water Treatment Process for Surface Water

Before your drinking water reaches your tap, it goes through a six-step treatment process that ensures it is clean. In addition, Prince William Water continually monitors the quality of the water provided to you.

Water Treatment Process for Groundwater

Prince William Water helps control pipe corrosion by adding sodium hydroxide to the wells in our Bull Run/ Evergreen water system in order to increase pH levels in the water supply. This helps reduce the potential for metals to leach from pipes into the water distribution system and home plumbing.

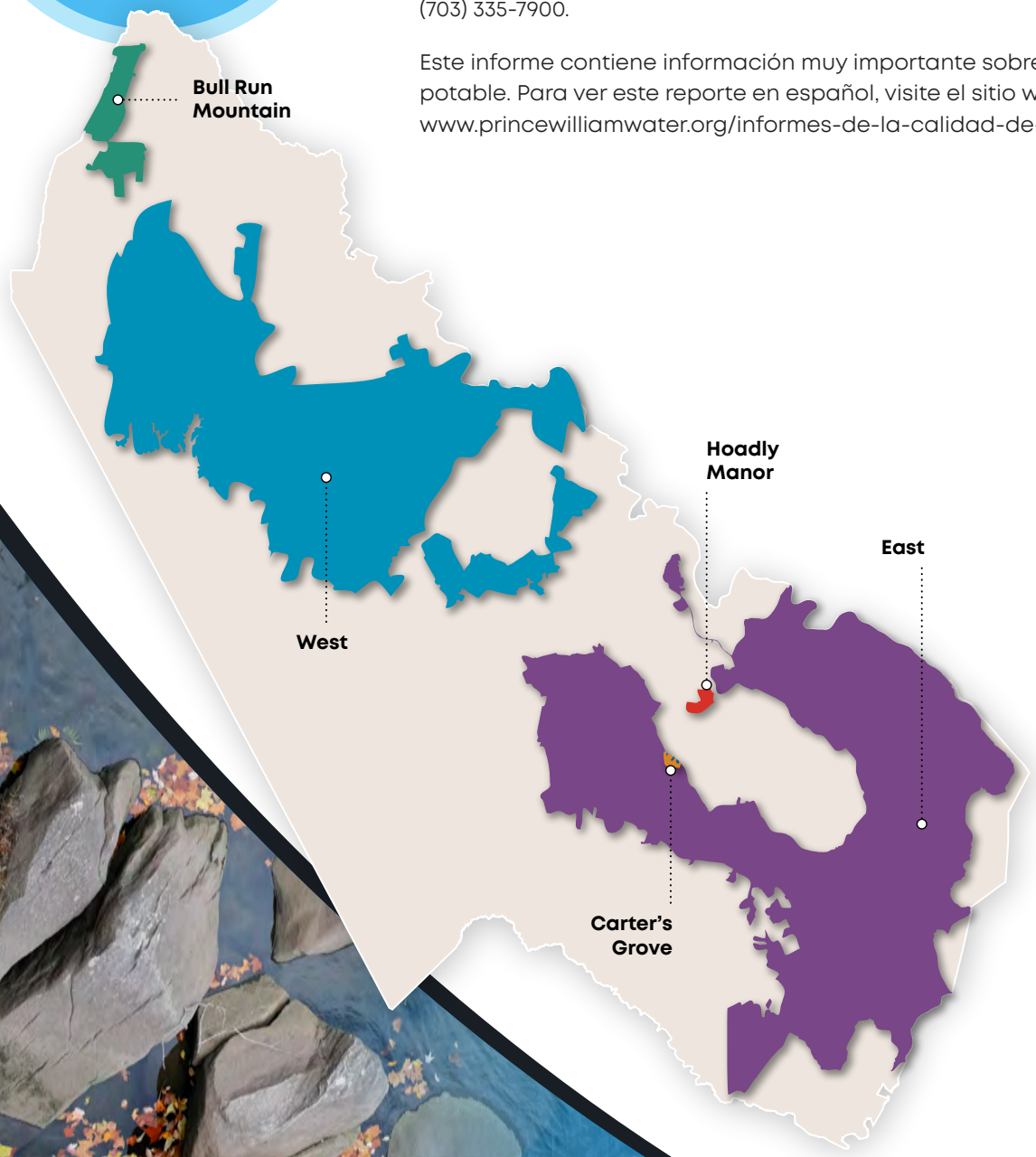
Learn More About Your Water

For more information about your drinking water, please contact Prince William Water's Regulatory Affairs Office at (703) 331-4162 or at water_quality@pwwater.org.

Prince William Water's Board of Directors meets on the second Thursday of each month in the Board Room of the Raymond Spittle Building, 4 County Complex Court in Woodbridge, Virginia. The date, time and agenda for each upcoming Board Meeting is available at www.PrinceWilliamWater.org. For more information, please call (703) 335-7900.

Este informe contiene información muy importante sobre su agua potable. Para ver este reporte en español, visite el sitio web en www.princewilliamwater.org/informes-de-la-calidad-de-agua.

Map of the Prince William Water Water Systems



Key Terminology and Abbreviations

90th Percentile Result Result from a set of lead and copper samples that is used to determine if the water system will be required to implement additional actions. Action is only required should the 90th Percentile sample be higher than the Action Level listed for either copper or lead.

Action Level (AL) The concentration of a contaminant that, if exceeded, triggers treatment or other requirements by the water supplier.

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 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 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.

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. Compliance with the MRDL is based on the highest Quarterly Running Annual Average.

N/A Not applicable.

ND Not detected at testing limit.

Nephelometric Turbidity Units (NTU) Measurement of the cloudiness of water.

Picocuries Per Liter (pCi/L) Measurement of radioactivity.

Parts Per Billion (ppb) One part substance per billion parts of water (or micrograms per liter).

Polyfluoroalkyl-and Perfluoroalkyl Substances or (PFAS) Are a class of more than 6,000 man-made chemicals used in manufacturing a wide variety of industrial and household products designed to resist heat, water, oil and stains.

Parts Per Million (ppm) One part substance per million parts of water (or milligrams per liter).

Secondary Maximum Contaminant Levels (SMCL) are established by the USEPA as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. SMCLs are not considered to present a risk to human health and are non-enforceable.

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

Learning Library on the Web

Visit our Learning Library at https://bit.ly/PWWlearning-library where you can learn about your water quality, water wise use, preparing for water emergencies and more.

Customer Handbook

Information about rules, regulations, rates, fees and more.

PFAS & Drinking Water

Learn about perfluoroalkyl and polyfluoroalkyl substances (PFAS), often referred to as “forever chemicals.

Wise Water Use for Residential Customers

Tips on how our customers can use water wisely. We all have a role in protecting our water resources!

PRINCE WILLIAM WATER

Your Water • Your Environment • Our Mission

P.O. Box 2266
Woodbridge, VA 22195-2266
www.PrinceWilliamWater.org