

# Water Quality Report 2024



Includes information about the Service Authority's:

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

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Dear Valued Customer,

The enclosed Water Quality Report provides useful information about the source and characteristics of your drinking water. As you will see, you can remain confident in the quality of water you receive as a Prince William County Service Authority customer.

We met or exceeded all federal and state water quality requirements for calendar year 2023, the most recent regulatory period. This high standard aligns with our mission to protect public health and the environment by reliably providing safe, dependable water and wastewater reclamation services to our community.

This year, we have combined the Water Quality Reports for our five water systems into a single document for a comprehensive look at our systems across Prince William County. You can review information about our drinking water sources, specific testing results, contaminants that we monitor and the drinking water treatment process.

Finally, as you read this report, the Service Authority will have transitioned to doing business as Prince William Water to clarify our mission and the role we all share as environmental ambassadors. Regardless of the name, we remain committed to providing reliable, quality water and exceptional service to our customers throughout Prince William County.

Sincerely,



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



# Sources of Your Drinking Water

Depending upon the area in which you reside, your source water is withdrawn from the Occoquan Reservoir, the Potomac River, Lake Manassas or one of six groundwater wells located throughout the Bull Run Mountain and Evergreen Water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, the Prince William County Service Authority, 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Before being consumed as drinking water, source water withdrawn from the Occoquan Reservoir undergoes advance treatment processes at Fairfax Water's Fredrick P. Griffith, Jr.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 15 million gallons of water a day to Service Authority 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 advance 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 County Service Authority's West system.

## Lake Manassas

In addition, 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. The Service Authority has operated the groundwater well system since 1990.

The Service Authority 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 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, the Service Authority's 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.

The Service Authority 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](mailto:water_quality@pwwater.org).

The Service Authority 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. The Service Authority 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. The Service Authority 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. The Service Authority 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.

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.**



# Lead in Drinking Water

Elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with service lines and premise plumbing, which is all plumbing located within the property line with a direct connection to the drinking water supply system. The Service Authority is responsible for providing high-quality drinking water but cannot control the variety of materials used in premise plumbing components.

When water has been sitting in pipes for several hours, you can minimize the potential for lead exposure by flushing your tap with cold water for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may want 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 **EPA Safe Drinking Water Hotline** at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

The Service Authority tested all of its distribution systems in 2023, and all systems were within regulatory compliance for lead and copper. To learn more visit: [www.princewilliamwater.org/lead-and-copper-faqs](http://www.princewilliamwater.org/lead-and-copper-faqs).



## 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**.

Inorganic contaminants

Pesticides and herbicides

Microbial contaminants

Organic chemical contaminants

Radioactive contaminants



# Water Quality Tables

## Bull Run Mountain and Evergreen (BRME): 6153050 Regulated Substances 2023

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)	2023	10	10	0.68	ND-0.68	No	Runoff of fertilizers; leaching of septic tanks or sewage; erosion of natural deposits.
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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 man-made 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 2023

Substance (Units)	Year Sampled	MCLG	MCL	Average	Range Low-High	Violation	Typical Source
Sodium (ppm)	2023	N/A	NA	23.3	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 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.023	ND	0.031	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 man-made deposits.
Fluoride (ppm)	4	4	0.69	0.59	0.77	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	1.16	0.67	2.20	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	20.2	ND	48.1	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	33.3	7.28	61.8	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	1.6	1.6	1.8	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 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	29.7	19.4	39.9	No	Runoff of road deicing chemicals; erosion of natural deposits.

**Microbiological Testing:** E. coli was detected in one sample collected in the water system during calendar year 2023. The positive result was due to a heavy rain that caused contamination issues in the sampling station. Additional testing confirmed coliform bacteria was not present.

## West System 6153251

## Regulated Substances 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.037	0.028	0.045	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	4	4	0.72	0.49	0.76	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	0.72	0.22	1.60	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	30.8	ND	53.8	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	45.6	4.57	65.0	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	1.2	1.1	1.2	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	0.20	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 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	17.9	11.9	27.5	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.

## Hoady Manor 6153323

## Regulated Substances 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.023	ND	0.031	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 man-made deposits.
Fluoride (ppm)	4	4	0.69	0.59	0.77	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	1.16	0.67	2.20	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	2.9	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	2023	17.5	17.5	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	2023	17.6	17.6	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	1.6	1.6	1.8	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 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	29.7	19.4	39.9	No	Runoff of road deicing chemicals; erosion of natural deposits.

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

## Carter's Grove 6153082

## Regulated Substances 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Barium (ppm)	2	2	0.023	ND	0.031	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 man-made deposits.
Fluoride (ppm)	4	4	0.69	0.59	0.77	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	1.16	0.67	2.20	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	2.3	0.7	2.4	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	2023	16.0	16.0	No	Byproduct of drinking water disinfection.
Total Trihalomethanes [TTHMs] (ppb)	N/A	80	2023	18.6	18.6	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	1.6	1.6	1.8	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 2023

Substance (Units)	MCLG	MCL	Average	Minimum	Maximum	Violation	Typical Source
Sodium (ppm)	N/A	N/A	29.7	19.4	39.9	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.

# Facts About Poly-And Perfluoroalkyl Substances (PFAS)

On April 10, 2024, the Environmental Protection Agency (EPA) announced the first federal standards that set limits on the amount of per- and polyfluoroalkyl (PFAS) substances, often referred to as “forever chemicals,” found in drinking water.

The Prince William County Service Authority and other water utilities are passive recipients of PFAS compounds, which are used in common household products and industrial processes. Under the new standards, water utilities will be required to monitor for specified types of PFAS and must reduce these PFAS by 2029 if monitoring indicates levels above the new EPA limits.

## The new EPA rule:

- Limits two types of PFOA and PFOS compounds to four parts per trillion.
- Limits PFNA, PFHxS and GenX chemicals to 10 parts per trillion.
- Sets a limit for mixtures of any two or more of PFNA, PFHxS, PFBS and GenX chemicals.
- Systems whose PFAS levels exceed the standards will have until 2029 to bring them to the regulated level.

The Service Authority has been collecting and analyzing samples since 2018. The latest sampling results can be found on our website at:  
<https://bit.ly/45DNJId>

To learn more visit:  
<https://bit.ly/3xbLa3b>





# 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, Service Authority continually monitors the quality of the water provided to you.

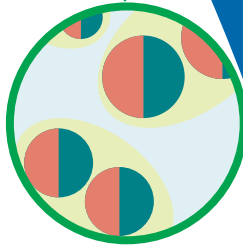
## Coagulation

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



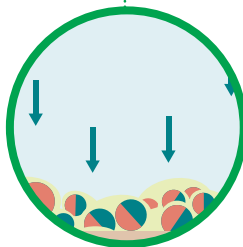
## Flocculation

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



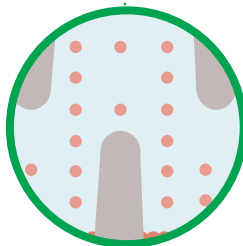
## Sedimentation

The clusters sink as they get bigger and heavier.



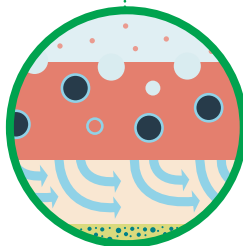
## Ozonation

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



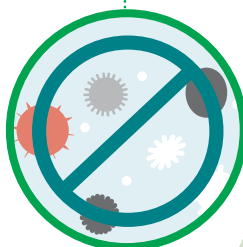
## Filtration

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 Ground Water

The Service Authority 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.

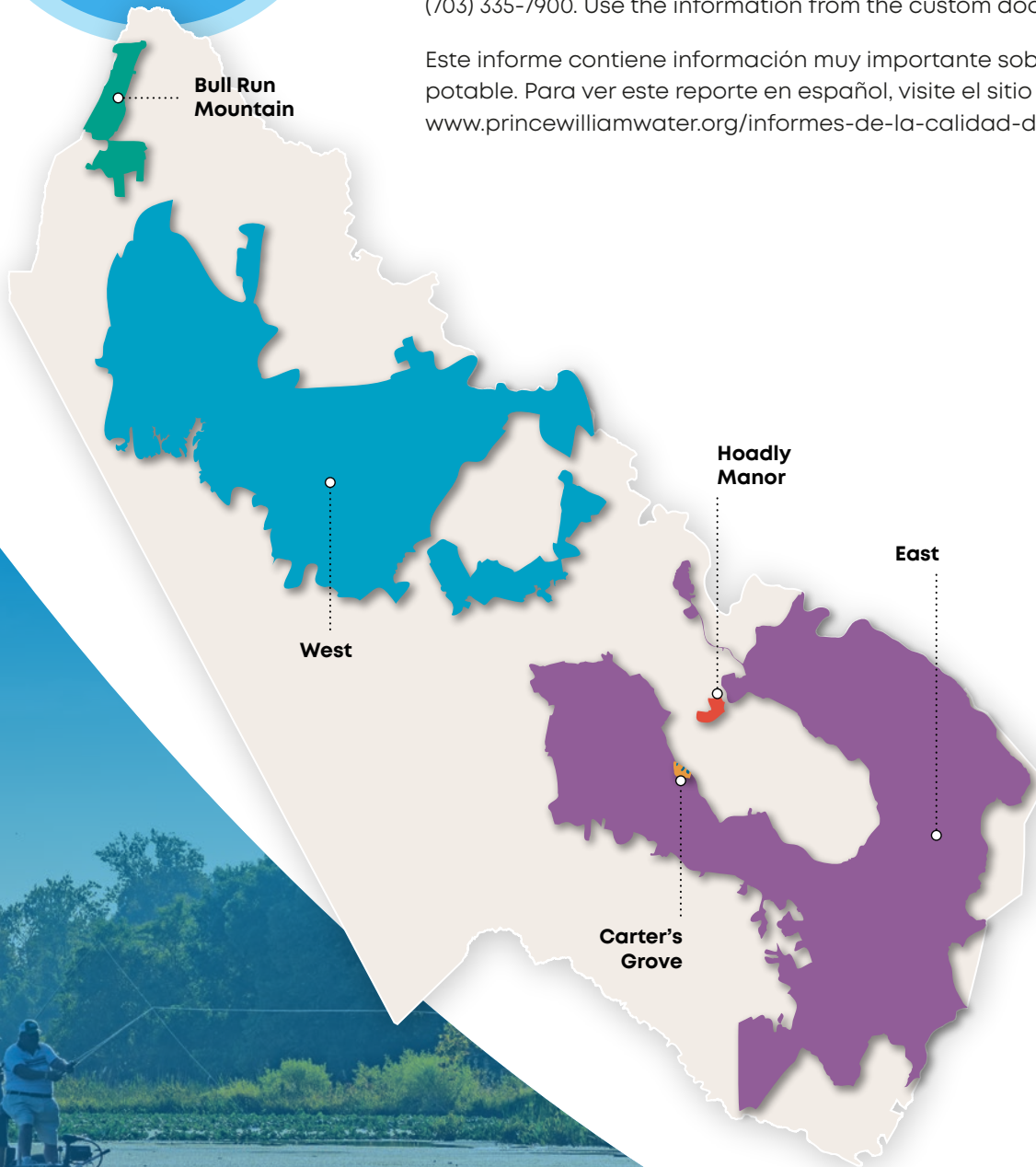
# Learn More About Your Water

For more information about your drinking water, please contact the Service Authority's Regulatory Affairs Office at (703) 331-4162 or at [water\\_quality@pwwater.org](mailto:water_quality@pwwater.org).

The Service Authority'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](http://www.princewilliamwater.org). For more information, please call (703) 335-7900. Use the information from the custom door hangers

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](http://www.princewilliamwater.org/informes-de-la-calidad-de-agua).

## Map of the Prince William County Service Authority 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).

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



# PRINCE WILLIAM WATER

Your Water.  
Your Environment.  
Our Mission.

We have proudly served Prince William County for over 40 years, distributing clean drinking water and returning treated wastewater to the environment. As we move forward, we are making several improvements to your customer experience.

As of July 1, 2024, the Prince William County Service Authority will:

- **Do business as Prince William Water**
- Launch a new website, [www.princewilliamwater.org](http://www.princewilliamwater.org)
- Roll out a new mobile app, Prince William Water, available through the Apple App and Google Play stores



For more info, visit <https://bit.ly/3KHLvha> or scan the QR code.

#### Customer Service:

Monday-Friday 8 a.m.-5 p.m.: 703-335-7950

24-hour Emergency Dispatch: 703-335-7990