

ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2017



Presented By



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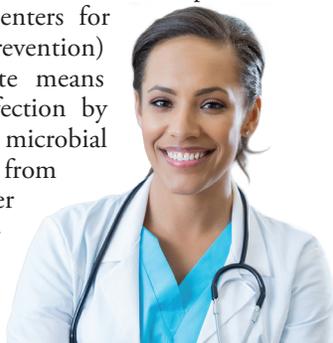
Quality First

Once again we are pleased to provide you with information from our purveyor, Washington Suburban Sanitary Commission, in the 2017 water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

Joint Base Andrews receives treated water from Washington Suburban Sanitary Commission (WSSC). The Patuxent and Potomac rivers are the sources of all the water that WSSC filters and processes. The source water treated at the Patuxent Water Filtration Plant (WFP) is held in two reservoirs, Triadelphia and T. Howard Duckett (also known as Rocky Gorge), and is pumped to the plant. The Potomac WFP draws water directly from the Potomac River.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you 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 or at www.epa.gov/lead.

Testing for *Cryptosporidium*

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctors regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

WSSC recently concluded monitoring of *Cryptosporidium* for a two-year period (March 2015 through February 2017) as required by the EPA. The results indicate that the Potomac and Patuxent sources are not affected by *Cryptosporidium*. While WSSC's existing treatment processes meet EPA requirements for addressing concerns about *Cryptosporidium*, as an extra precaution, they have installed UV disinfection at the Potomac Plant to provide an extra barrier of protection against *Cryptosporidium*. The UV disinfection upgrade at the Patuxent Plant will be complete in Fall 2018.

UCMR3 Sampling

According to State of Maryland legislation requiring WSSC to continue the latest cycle of the Unregulated Contaminant Monitoring Rule (UCMR), WSSC conducted monitoring of 28 unregulated contaminants on a quarterly basis. The federally required UCMR3 monitoring program ended in 2014. Samples are collected from two locations in each sampling event: tap water from both the Potomac and Patuxent WFPs. Metals and inorganics samples are also collected at two points in the distribution system. Only 7 of the 28 tested contaminants were detected in 2017, and all detections were at low levels (parts per billion range). The detected contaminants are listed in this report. The next round of the federally mandated UCMR monitoring program (UCMR4) will begin in 2018. The EPA has not established maximum contaminant levels (MCL) for these unregulated contaminants, and the human health effects of these contaminants at the levels they were found is unclear. If you are interested in learning more about the results, please contact WSSC at (301) 206-7575 or visit wsscwater.com/ucmr3. More information on UCMR3 is also available at the EPA's Web site water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/.



QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please contact the Washington Suburban Sanitary Commission (WSSC) at (301) 206-8100.

Source Water Assessments

In 2002 and 2004, WSSC conducted source water assessments in cooperation with the Maryland Department of the Environment (MDE), evaluating the vulnerability of our two drinking water sources (Potomac and Patuxent) to contamination. The reports are available for public review at the main branches of the Montgomery and Prince George's County libraries, or by contacting MDE at (410) 537-3714.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.



FOG (Fats, Oils, and Grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

Test Results

Our water is monitored by WSSC for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2017	15	0	<2	<2-<2	No	Erosion of natural deposits
Arsenic (ppb)	2017	10	0	<2	ND-<2	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Atrazine (ppb)	2017	3	3	<1	ND-<1	No	Runoff from herbicide used on row crops
Barium (ppm)	2017	2	2	0.03	0.02-0.04	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters ¹ (pCi/L)	2017	50	0	4.4	<4-5.2	No	Decay of natural and man-made deposits
Chlorine (ppm)	2017	[4]	[4]	1.2	ND-3.4	No	Water additive used to control microbes
<i>Cryptosporidium</i>	2017	TT=99.99% Removal	0	TT Requirements Met	NA	No	Naturally occurring
Dalapon (ppb)	2017	200	200	<1	ND-<1	No	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) Phthalate (ppb)	2017	6	0	<2	ND-<2	No	Discharge from rubber and chemical factories
Fluoride (ppm)	2017	4	4	0.7	0.5-0.8	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
<i>Giardia lamblia</i>	2017	TT=99.99% Removal	0	TT Requirements Met	NA	No	Human and animal fecal waste
Haloacetic Acids [HAAs] (ppb)	2017	60	NA	51	14-91	No	By-product of drinking water disinfection
Nitrate (ppm)	2017	10	10	1.2	0.48-1.6	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radium 228 (pCi/L)	2017	5	0	1	<1-3	No	Erosion of natural deposits
Selenium (ppb)	2017	50	50	<2	ND-<2	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Simazine (ppb)	2017	4	4	<1	ND-<1	No	Herbicide runoff
TTHMs [Total Trihalomethanes] ² (ppb)	2017	80	NA	65	22-115	No	By-product of drinking water disinfection
Total Organic Carbon	2017	TT	NA	Met TT requirements	NA	No	Naturally present in the environment
Turbidity ³ (NTU)	2017	TT	NA	0.09	0.01-0.09	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2017	TT	NA	100	NA	No	Soil runoff
Viruses	2017	TT=99.99% Removal	0	TT Requirements Met	NA	No	Human and animal fecal waste

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2017	1.3	1.3	0.10	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2017	15	0	1.1	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2017	18	10–26	Leaching from soil

UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
1,4-Dioxane (ppb)	2017	0.03	ND–0.03
Chlorate (ppb)	2017	26	ND–41
Chromium [Total] (ppb)	2017	<2	ND–<2
Chromium-6 (ppb)	2017	0.15	ND–0.23
Molybdenum (ppb)	2017	0.35	ND–1.4
Strontium (ppb)	2017	178	60–260
Vanadium (ppb)	2017	0.16	ND–0.33

¹The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

²Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

³Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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