April 1, 2025

2024 Annual Water Quality Report for The Town of Urbanna Middlesex County

(PWSID#: 4119800)

Introduction

This Water Quality Report for calendar year 2024 is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH).

General Information

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

(1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
(2) 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.
(3) Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.
(4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum, and can also come from gas stations, urban storm water runoff, and septic systems.
(5) Radioactive contaminants, which can be naturally occurring or be the results of oil and gas production and mining activities.

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

All drinking water, including bottled drinking 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 can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Sources and Treatment of YOUR Water

The source of your drinking water is groundwater from two wells located in the Town. The only treatment provided is chlorination of Well #5 to prevent bacteriological growth in the storage tank and distribution system. There is no treatment of Well #3.

As a first step toward protection of our sources of drinking water, the Virginia Department of Health (VDH) conducted a source water assessment of the Town of Urbanna waterworks in early 2019. Contamination sources and pathways were reviewed using maps, known and observed activities, water quality data and information about the water sources. Using criteria developed by the State in its EPA-approved Source Water Assessment Program, it was determined that, on a relative basis, **both wells are of low susceptibility to contamination.** A copy of the source water assessment report is available by contacting the Town Office at the phone number or address provided elsewhere in this report.

Definitions

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. In the tables and elsewhere in this report you will find the results of our monitoring; however, many terms and abbreviations are used that you might not be familiar with. The following definitions are provided to help you better understand these terms:

Non-detects (ND) - *lab analysis indicates that the contaminant is not present*

Parts per million (ppm) or Milligrams per liter (mg/l) - *one part per million corresponds to one minute in two years or a single penny in $10,000.*

Parts per billion (ppb) or Micrograms per liter - *one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.*

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - *one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.*

Picocuries per liter (pCi/L) - *picocuries per liter is a measure of the radioactivity in water.*

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

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

Maximum Contaminant Level, or MCL - *the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.*

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

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

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

Water Quality RESULTS

We constantly monitor various contaminants in the water supply to meet all regulatory requirements. The tables list only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment. Some of the water quality results in the tables are from testing prior to 2024. Virginia State Law permits us to test for various contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some data though accurate may be more than one year old. However, results which were reported prior to 2020 are not included.

Lead and Copper Contaminants								
Contaminant	Units of measurement	Action Level	MCLG	Range of results	90th Percentil value	Action Level Exceeded? (Y/N)	Month of Sampling	# of Samples Exceeding Action Level
Copper	ppm	1.3	1.3	0.00423 - 0.151	0.097	N	Sept/2023	0
Lead	ppm	15	0	<1.0 - 3.18	2.88	N	Sept/2023	0

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. Sydnor Hydro 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 Gregg Arrington with Sydnor Hydro Inc. at (804) 643-2725, extension 227. 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.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who

are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems

The Lead Service Line Inventory required by EPA was completed and accepted by the Health Department on December 17, 2024. For more information, contact the Town Administrator.

Other Chemical and Radiological Contaminants

Contaminant	Units of Measure	MCLG	MCL	Level Detected	Violation (Y/N)	Range of Results	Dates of Sample Collection
Fluoride	ppm	4	4	3.9	N	2.4 – 3.9	April /2023
Gross Beta	PiC/L	0	50	6.7	N	5.7 – 6.7	Jan/2020, Dec/2021
Combined Radium	PiC/L	0	5	0.7	N	0.3 – 0.7	Jan/2020, Dec/2021
Barium	ppm	2	2	0.0107	N	ND – 0.0107	April/2023
Gross Alpha	PiC/L	15	15	3.1	N	ND – 3.1	Jan/2020, Dec/2021
HAA	ppb	N/A	60	4.03	N	N/A	Sept/2024

There is presently no established standard for **sodium** in drinking water. Water containing more than 270 mg/l of sodium should not be used as drinking water by those persons whose physician has placed them on moderately restricted sodium diets. Water containing more than 20 mg/L should not be used as drinking water by those persons whose physician has placed them on severely restricted sodium diets. For informational purposes only, we wish to point out that the analysis of samples collected on April 24, 2023 indicated sodium concentrations of 221 mg/L and 176 mg/L, respectively.

MCLs are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effects for other contaminants.

Disinfectants

Contaminant	Units of Measurement	MRDLG	MRDL	Level Detected	Violation (Y/N)	Range of Detection at Sampling Points	Year Taken
Chlorine	ppm	4	4	0.78	N	0.46 – 1.10	2024

We are pleased to report that there were no detections of total coliform or fecal coliform bacteria in the monthly samples collected and analyzed during the past calendar year.

Typical Source of Contamination	
Contaminant	**Source**
Fluoride	Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Lead	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Gross Beta	Decay of natural and man-made deposits
Gross Alpha	Decay of natural and man-made deposits
HAAs	Byproduct of drinking water chlorination
Combined Radium	Erosion of natural deposits
Barium	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

Violation Information:

There were no monitoring or reporting violations during 2024.

FLUORIDE PUBLIC NOTICE

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by The Town of Urbanna waterworks has a fluoride concentration of **3.9** mg/l from Well No. 3 and **2.4** mg/l from Well No. 5

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the U. S. Environmental Proection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.

Some home treatment units are available to remove fluoride from drinking water. To learn more about these home water treatment units, you may call NSF International at 1-877-NSF-HELP or 1-800-673-8010.

Questions???

For more information about any aspect of your drinking water or to find out how to get involved in decisions that may affect the quality of your water, we encourage you to contact Mr. Ted Costin, Town Administrator by phone at (804) 758-2613 or by mail at P. O. Box 179 Urbanna, VA 23175. Council meetings are held on the second and fourth Thursday of most every month at 6:00 PM in the town council chambers at 390 Virginia St, suite B.

This Drinking Water Quality Report was prepared for the Town by Sydnor Hydro, Inc. Any questions regarding water-testing results may be directed to Gregg Arrington at 804-514-1460.