

Annual Water Quality Report - Reporting Year 2022

Town of Ocean City
6405 seabay drive
Ocean City, MD 21842

PWSID#: MD0230003

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

For more information about this report, or for any questions relating to your drinking water, please call Howard Iman, Water Department Superintendent, at (410) 524-8388.

Community Participation

Council meetings are normally held on the 1st and 3rd Mondays of each month beginning at 6 p.m.

Council work sessions are usually held at noon on the Tuesday before the council meeting. Both are normally held in the council chambers at City Hall, Third Street and Baltimore Avenue. Any members of the public who wish to attend are encouraged to call (410) 289-8221 to verify the meeting time and place.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 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, which 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.

Source Water Information

Source Water Name Type of Water Report Status Location

120TH ST WELL G WO942987 GW Y 100 120TH Street serves TP03
125TH ST WELL F WO880648 GW Y 204 125TH St serves TP03
130TH ST WELL E WO812433 GW Y 109 130TH Street serves TP03
141ST ST WELL D WO730690 GW Y 707 141ST Street serves TP03
15TH ST WELL A WO027645 GW Y 1403 Philadelphia Ave serves TP01
15TH ST WELL B WO037861 GW Y 1402 Philadelphia Ave serves TP01
15TH ST WELL C WO670056 GW Y 205 15th Street serves TP01
28TH ST WELL F WO940883 GW Y 303 28th Street serves TP01 or TP02
33RD ST WELL G WO881050 GW Y 306 33RD Street serves TP01 or TP02
38TH ST WELL H WO951147 GW Y 3801 Coastal Hwy serves TP01 or TP02
3RD ST WELL E WO940481 GW Y 301 St. Louis Ave serves TP01
42ND ST WELL C WO690080 GW Y 109 42ND Street serves TP02
44TH ST WELL A (TBA) WO050667 GW Y 104 44th Street serves TP02
45TH ST WELL B (TBA) WO050668 GW Y 16 45TH Street serves TP02
FOUNTAIN RD WELL C WO730689 GW Y 13602 Fountain Rd serves TP03
GORMAN AVE WELL A WO720059 GW Y 13605 Sinepuxent Ave serves TP03
GORMAN AVE WELL B WO720062 GW Y 13600 Gorman Ave serves TP03
NORTH DIV ST WELL E WO941178 GW Y 107 N. Division St serves TP01
SOUTH WELL A WO018528 GW Y 105 Worcester St serves TP01
SOUTH WELL C WO650057 GW Y 101 Worcester St serves TP01
SOUTH WELL B WO018529 GW Y 102 Worcester St serves TP01

Source Water Assessment

The Maryland Department of Environment (MDE)

Water Supply Program has conducted a Source Water Assessment for the Town of Ocean City. The major components of this report as described in the Maryland Source Water Assessment Plan (SWAP) are (1) delineation of an area that contributes water to the source and (2) identification of potential sources of contamination. Recommendations for management of the assessment area conclude the report. The MDE Water Supply Program delineated the source water assessment using methods approved by the U.S. EPA. Potential sources of contamination within the assessment area were identified based on MDE site visits and a review of MDE databases. Well information and waterquality data were also reviewed. A map showing the source water assessment areas and potential contaminant sources was enclosed.

The susceptibility analysis for the Ocean City water supply is based on a review of the water-quality data, potential sources of contamination, aquifer characteristics, and well integrity. It was determined that the Ocean City water supply is not susceptible to contaminants originating at the surface due to the protected nature of the confined aquifers. The water supply is susceptible to naturally occurring iron in the aquifers, chlorides due to saltwater intrusion, and trihalomethanes and haloacetic acids, which are disinfection by-products.

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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

PFAS Monitoring Program

PFAS – or per- and polyfluoroalkyl substances – refers to a large group of more than 4,000 human-made chemicals that have been used since the 1940s in a range of products, including stain- and water-resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging and fire-fighting foams. These uses of PFAS have led to PFAS entering our environment, where they have been measured by several states in soil, surface water, groundwater, and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.

Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. PFOA and PFOS are two of the most prevalent PFAS compounds. PFOA concentrations from samples taken from our water system in 2022 ranged from 0.00-0.00 parts per trillion (ppt); PFOS concentrations from samples taken from our water system in 2022 ranged from 0.00-0.00 ppt. EPA is expected to establish MCLs for PFOA and PFOS later this year. This would require additional monitoring as well as certain actions for systems above the MCL. Additional information about PFAS can be found on the MDE website: mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx.

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water and the use of chlorine are probably the most significant public health advancements in human history.

How chlorination works:

Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.

Taste and Odor Reduction of many disagreeable tastes and odors from foul-smelling algae secretions, sulfides, and decaying vegetation.

Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

(Editor Note: Add the following text as footnote for Beta/Photon Emitters):

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

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not 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 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
Barium (ppm)	2021	2	2	0.034	0.016 - 0.034	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters (pCi/L)	2018	50	0	7.1	7.1 - 7.1	No	Decay of natural and man-made deposits
Chlorine (ppm)	2022	[4]	[4]	0.5	0.4 - 0.5	No	Water additive used to control microbes
Haloacetic Acids [HAAs] - Stage 2 (ppb)	2022	60	NA	7	1.5 - 16.8	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] - Stage 2 (ppb)	2022	80	NA	44	23.6 - 71.7	No	By-product of drinking water disinfection

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 %ile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2021	1.3	1.3	0.11	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2021	15	0	1.8	0/30	No	Lead services lines, corrosion of household plumbing systems including fittings and fixtures; erosion of natural deposits

Table Definitions

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

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

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

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

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.

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

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.