

WATER QUALITY REPORT 2021

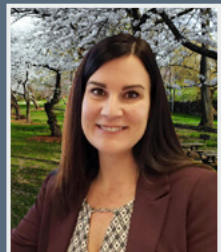


Published by the City of Wilmington Department of Public Works Water Division



To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in public water systems. The EPA requires the City of Wilmington, and all other water suppliers in the U.S., to report annually on specific details about testing for a number of contaminants in our water. Chemical and biological monitoring provide the data that helps suppliers, such as the City of Wilmington, make key water quality management decisions to ensure freshness and purity. This report, published in the spring of 2022, includes water quality information for the 2021 calendar year.

(Full report continues on page 2)



Kelly A. Williams, Commissioner,
Department of Public Works

A Word from the Commissioner

The City of Wilmington continues its commitment of providing our consumers with clean and reliable drinking water today and for future generations. This report, published in the spring of 2022 includes water quality information for the 2021 calendar year. The U.S. Environmental Protection Agency (EPA) requires all water utilities to produce and distribute water quality reports on an annual basis.

In 2021 our Water Quality Laboratory conducted more than 5,000 samples to demonstrate that our water exceeds Safe Drinking Water Standards. The City of Wilmington is also member of the Partnership for Safe Drinking Water, a voluntary program that commits the City Water Treatment Plants to adopting treatment techniques that improve performance above and beyond proposed regulatory levels.

Since 2010 the City has been actively involved in implementing its Source Water Protection Plan (SWPP). Each year the City invests in preservation and conservation efforts to protect our water supply. For every dollar the city spends on source water protection it is matched by upstream partners with approximately nine dollars.

These successful partnerships have allowed for extraordinary projects including the creation or updating of over 21 farm conservation plants and nutrient management plans and the implementation of 85 Best Management Practices (BMPs) including: 24.3+ acres of riparian buffers, 4,300+ trees planted, 5.2+ miles of stream bank fencing, 12 stabilizing stream structures, and a variety of other BMPs. All of this helps to keep pollutants, and excessive nutrients out of creek waters.

The Water Quality Laboratory also has a watershed monitoring program which began in 2006. This program includes monthly sampling at 7 different locations within our watershed. The data collected is used to identify current and future treatment needs for our water treatment plants. This data is also shared with our source water partners for source water protection planning efforts.

We are proud to bring you this year's Water Quality Report. I hope you find it helpful and informative. If you have questions don't hesitate to call or e-mail the appropriate personnel listed inside the report.



Wetland Park

Kids Activities pages 10-11
(South Wilmington Wetlands)

2021 Water Quality Report

SOURCES OF DRINKING WATER

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.

Drinking water, including bottled 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 about contaminants and potential health effects can be obtained by calling the EPAs Safe Drinking Water Hotline at **(800) 426-4791**. Contaminants 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, and wildlife.
- ➔ 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.
- ➔ Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products 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.



In order 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water please contact the customer call center at **(302) 576-3878**.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. 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 microbial contaminants are available from the Safe Drinking Water Hotline **(800) 426-4791**.

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 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 [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).

The Division of Public Health, in conjunction with the Department of Natural Resources and Environmental Control (DNREC), has conducted source water assessments for nearly all community water systems in the state of Delaware. The assessment may also be viewed at this website: delawaresourcewater.org.

TABLE 1: WATER QUALITY RESULTS - DETECTED PRIMARY^[1] PARAMETERS AT ENTRY POINTS TO DISTRIBUTION SYSTEM

				Brandywine Filter Plant			Porter Filter Plant				
Contaminant	Units	MCLG	MCL or TT	Range of Levels Detected	Highest Detected Level	Violation	Range of Levels Detected	Highest Detected Level	Violation	Likely Source of Contamination	
Microbiological Indicators ^[6]											
Turbidity - Percentile	% of samples below 0.3	N/A	95% of monthly samples must be less than 0.3.	99 - 100	100	No	100 - 100	100	No	Soil runoff	
Turbidity - Values	NTU		No sample must ever exceed 1.0.	0.025 - 0.197	0.197	No	0.025 - 0.138	0.138	No	Soil runoff	
Inorganic Chemicals (Metals and Nutrients)											
Barium	ppm	2	2	0.0348 - 0.0348	0.0348	No ^[9]	0.0414 - 0.0414	0.0414	No ^[9]	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	
Nickel	ppb	N/A	100	1.5 - 1.5	1.5	No ^[9]	2.0 - 2.0	2.0	No ^[9]	Discharge from industrial sources; erosion of natural deposits	
Chromium	ppb	100	100	1.0 - 1.0	1.0	No ^[9]	1.9 - 1.9	1.9	No ^[9]	Discharge from steel and pulp mills; Erosion of national deposits	
Fluoride	ppm	2	Delaware State MCL: 2 ppm ^[7]	0.17 - 1.19	1.19	No	0.31 - 1.24	1.24	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	
Nitrate	ppm	10	10	1.9 - 4.5	4.5	No	0.5 - 4.8	4.8	No	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits	
Nitrite	ppm	1	1	0.002 - 0.006	0.006	No	0.002 - 0.012	0.012	No	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits	
Disinfectants											
Chlorine	ppm	N/A	At least 0.3 residual entering Distribution System	1.06 - 2.5	2.5	No	1.33 - 2.5	2.5	No	Water additive used to control microbes.	
Disinfection Byproduct Precursors											
Total Organic Carbon	ppm	N/A		0.79 - 2.83	2.83	N/A	0.50 - 1.80	1.80	N/A	Naturally present in the environment.Total organic carbon (TOC) has no health effects. However TOC provides a medium for the formation of disinfection byproducts.	
Total Organic Carbon	% Removal (Raw to Treated)	N/A	TOC Removal 25-35% requirement based on source water Alkalinity between	0% - 67%	67%	No	10% - 71%	71%	No		
Total Organic Carbon	Compliance Ratio (rolling annual avg)	N/A	Ratio of Actual to Required Removal - must be greater than or equal to 1.	1.01 - 1.33	1.33	No ^[10]	1.25 - 1.54	1.54	No ^[10]		
Synthetic Organic Chemicals (pesticides, defoliants, fuel additives) - (2016 unless noted)											
Dalapon	ug/L	200	200	0.79-0.79	0.79	-	-	-	-	Runoff from herbicide on rights of way.	
Atrazine	ug/L	3	3	-	-	-	0.031-0.031	0.031	-	Runoff from herbicide on rights of way.	
Di (2-ethylhexyl) phthalate	ug/L	0	6	0.27-0.27	0.27	-	0.28-0.28	0.28	-	Discharge from plastic production.	
Hexachlorocyclopentadiene	ug/L	50	50	-	-	-	0.077-0.077	0.077	-	Runoff from herbicide on rights of way.	
Simazine	ug/L	4	4	-	-	-	0.072-0.072	0.072	-	Runoff from herbicide on rights of way.	

TABLE 2: WATER QUALITY RESULTS - DETECTED PRIMARY^[1] PARAMETERS IN DISTRIBUTION SYSTEM

Contaminant	Units	MCLG ^[2]	MCL ^[3] or TT ^{[4][5]}	Range of Levels Detected	Highest Detected Level	Violation	Likely Source of Contamination
Microbiological Indicators							
Total Coliform	% of samples positive each month	0%	5.0%	0.0 - 1.9	1.9	No	Bacteria that are naturally present in the environment. Used as an indicator of the presence of other potentially harmful bacteria.
Disinfectants							
Chlorine	ppm	MRDLG = 4.0 ^[11]	MRDL = 4.0 ^[12]	0.01 - 2.2 ^[13]	2.2 ^[13]	No	Water additive used to control microbes.
Disinfection Byproducts							
Total Trihalomethanes	ppb	No goal for the total	80	13 - 88 ^[14]	69 ^[15]	No	Byproduct of drinking water disinfection. Forms due to reaction of chlorine with total organic carbon. Health effects: Some people who drink water containing TTHMs in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Haloacetic Acids	ppb	No goal for the total	60	9-36 ^[14]	30 ^[15]	No	Byproduct of drinking water disinfection. Forms due to reaction of chlorine with total organic carbon.

TABLE 4: RADIOACTIVE CONTAMINANTS (2020 UNLESS NOTED)

Radioactive Contaminants	Units	MCLG	MCL	Highest Detected Level	Range of Levels Detected	Violation	Likely Source of Contamination
Beta/photon emitters (2011)	pCi/L	0	50 ^[17]	3.5	3.5 - 3.5	No	Decay of natural and man-made deposits.
Gross Alpha Particle Activity	pCi/L	0	3	0.14	0.14 - 0.14	No	Decay of natural and man-made deposits.
Radium-226	pCi/L	0	1	0.25	0.25 - 0.25	No	Decay of natural and man-made deposits.
Radium-228	pCi/L	0	1	0.84	0.84 - 0.84	No	Decay of natural and man-made deposits.

TABLE 3: DETECTION OF UNREGULATED CONTAMINANTS^[16]

Chemical or Constituent	Units	Average	Range of Levels Detected	Likely Source of Contamination
Per-and Polyfluoroalkyl-Substances (2019)				
Perfluorobutanesulfonic acid (PFBS)	ppt	2.3	2.2 - 2.4	Industrial discharges
Perfluoroheptanoic acid (PFHpA)	ppt	4.9	3.8 - 6	Industrial discharges
Perfluorohexanoic acid (PFHxA)	ppt	6.85	5.5 - 8.2	Industrial discharges
Perfluorononanoic acid (PFNA)	ppt	2.85	2.2 - 3.5	Industrial discharges
Perfluorooctanesulfonic acid (PFOS)	ppt	3.35	3.3 - 3.4	Industrial discharges
Perfluorooctanoic acid (PFOA)	ppt	8.15	7.1 - 9.2	Industrial discharges
Disinfection Byproducts (2020)				
Bromochloroacetic Acid (BCAA)	ppb	4.3	1.2 - 6.2	Chlorination disinfection by-product
Bromodichloromethane (BDCM)	ppb	10.4	3.4 - 17.7	Chlorination disinfection by-product
Chlorodibromomethane (CDBM)	ppb	2.6	<0.5 - 5.2	Chlorination disinfection by-product
Dibromoacetic Acid (DBAA)	ppb	1.0	<1.0 - 1.2	Chlorination disinfection by-product
Dichloroacetic Acid (DCAA)	ppb	12.33	4.0 - 23.7	Chlorination disinfection by-product
Monobromoacetic Acid (MBAA)	ppb	1.0	<1.0 - <1.0	Chlorination disinfection by-product
Monochloroacetic Acid (MCAA)	ppb	2.1	<2.0 - 2.6	Chlorination disinfection by-product
Trichloroacetic Acid (TCAA)	ppb	12.8	5.3 - 26.9	Chlorination disinfection by-product

For more information on Per-and Polyfluoroalkyl-Substances visit drinktap.org/Water-Info/Whats-in-My-Water/Per-and-Polyfluoroalkyl-Substances
For more information on Unregulated Contaminants visit drinktap.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR

TABLE 5: SECONDARY^[18] PARAMETERS AND OTHER PARAMETERS OF INTEREST DETECTED IN WATER AS IT ENTERS DISTRIBUTION SYSTEM

			Brandywine Filter Plant			Porter Filter Plant			
Contaminant	Units	SMCL ⁽¹⁸⁾	Average	Lowest	Highest	Average	Lowest	Highest	Source
Conventional Physical and Chemical Parameters									
pH	units	6.5 - 8.5	7.3	6.6	7.8	7.4	6.7	7.9	Waters with pH = 7.0 are neutral
Alkalinity	ppm as CaCO ₃	N/A	66	35	84	58	31	74	Measure of buffering capacity of water or ability to neutralize an acid
Hardness	ppm as CaCO ₃	N/A	111	74	130	119	82	138	Naturally occurring; Measures Calcium and Magnesium
Conductivity	mmhos/cm	N/A	368	159	433	403	280	706	General measure of mineral content
Sodium	ppm	N/A	27.4	27.4	27.4	26.3	26.3	26.3	Naturally occurring; chemical additive to treat the water; road salt application and run-off
Sulfate	ppm	250	20.3	20.3	20.3	19.9	19.9	19.9	Naturally occurring; can cause objectionable taste and odor in water
Chloride	ppm	250	62	28	77	74	37	162	Naturally occurring; Chemical Additive to treat the water; Road salt application and run-off
Metals									
Iron	ppb	300	24	<20	50	26	<20	170	Naturally occurring; Chemical Additive to treat the water; Corrosion of pipes; Can cause discoloration in water
Manganese	ppb	50	11	2	26	12	3	28	Naturally occurring; can cause discoloration and objectionable taste in water
Zinc	ppm	5	0.10	0.07	0.19	0.10	0.06	0.14	Naturally occurring; Chemical Additive to treat the water

TABLE 6: LEAD AND COPPER (BASED ON 2020 SAMPLING—TESTING IS DONE EVERY 3 YEARS)

Contaminant	MCLG	Action Level (AL) ^[19]	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	1.3	1.3	0.27	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems
Lead	0	15	2.2	2	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits

KEY TO TABLES

- [1] Primary parameters are contaminants that are regulated by a maximum contaminant level (MCL), because above this level consumption may adversely affect the health of a consumer.

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

[3] MCL - Maximum Contaminant Level is 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

[4] TT - Treatment Technique refers to the required process intended to reduce the level of a contaminant in drinking water. EPA's surface water treatment rules require systems to (1) disinfect their water and (2) filter their water such that the specific contaminant levels cited are met. Lead and copper are regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. Total organic carbon is regulated by a Treatment Technique that requires systems operate with enhanced coagulation or enhanced softening to meet specified percent removals.

[5] Unless otherwise indicated value given is a MCL.

[6] The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. If this is the case, the sample year will be noted in the table.

[7] State limit is to not exceed 2.0 mg/L.

[8] Collected in 2014.

[9] Collected in 2015.
- [10] Total Organic Carbon compliance is calculated quarterly based on the running annual average of removal %.

[11] MRDLG - Maximum Residual Disinfectant Level Goal is the level of drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

[12] MRDL - Maximum Residual Disinfectant Level is 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.

[13] Cited value is the lowest and/or highest number of routine samples.

[14] Cited range is the range of all individual results in 2021.

[15] Cited value is the highest Locational Running Annual Average (LRAA). MCL is based on the LRAA, which is compiled to include data from previous quarters.

[16] Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future.

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

[18] SMCL - Secondary Maximum Contaminant Level ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water

[19] AL - Action Level: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow. ND: not detected

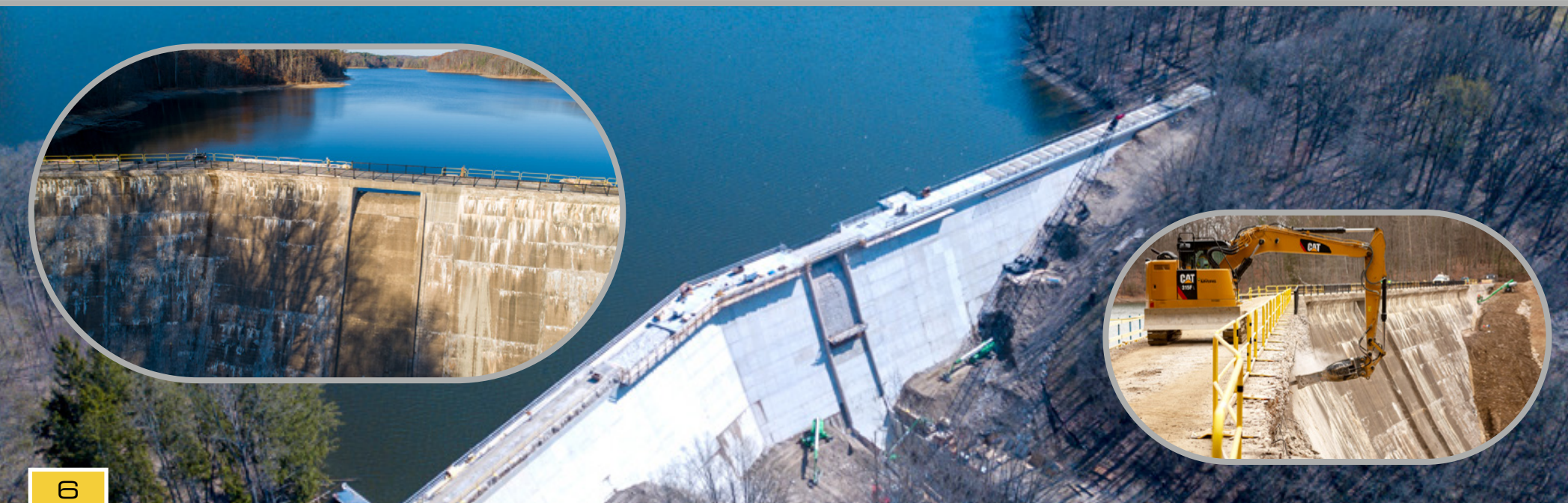
Hoopes Reservoir DAM CREST REHABILITATION

In 2020-2022 the City of Wilmington invested approximately \$1.8 million in the rehabilitation of the Hoopes Reservoir dam. Hoopes Reservoir was originally constructed in 1932 and is named after Colonel Edgar M. Hoopes, Jr., a former Chief Engineer of the City's Water Department and a board member of the Wilmington Water Commission. The reservoir can hold 2.2 billion gallons of raw water and provides high-quality source water to the Porter Filter Plant when heavy rainfall makes the Brandywine overly turbid and muddy.

As shown in the aerial pictures, the reservoir is built in the Old Mill Stream Valley, northwest of Wilmington. This area was selected due to the topography. The valley measured 8,000 feet in length, 900 feet in width, and 135 feet in depth. Construction of the dam, erected at the neck of the valley, required excavation of 70,000 cubic feet of materials. The reservoir was filled with a

"cushion" of approximately 40 million gallons of water from Old Mill Stream. The cushion was necessary to prevent erosion of the reservoir banks as water was pumped in when Water Department engineers diverted the stream into the reservoir. An additional 700 million gallons of water was pumped into the reservoir from the Brandywine Creek. On April 17, 1933, the reservoir was filled to capacity for the first time and has since become a source of regional water supply used by the City of Wilmington.

At the time the dam was built the American Concrete Institute was still in its infancy and construction standards for concrete were still being developed. Without strict standards in place, portions of the Hoopes dam were constructed with aggregates in the concrete containing reactive silicas. These silicas over time allow reactions to occur that can cause cracks in the concrete. These conditions are commonly seen in concrete from the period of the Hoopes construction. Although not threatening the structural integrity of the dam, it was advantageous to correct the issue and ensure the dam's integrity for decades or even centuries to come. The rehabilitation project removed two to four feet of the upper crest and replaced it with new reinforced concrete. Additionally, the small amount of spalling concrete found in the upper ten feet of the wet face of the dam (about eight to twelve inches deep) was also removed and replaced with new concrete. The dry face of the dam was removed to a depth of eight to twenty-four inches deep and resurfaced in its entirety. These repairs demonstrate the City's progressive approach to correct the issues facing the dam to avoid costly and complicated repairs, and could have placed undue burden on the water supplies to the City and its surrounding suburbs.



Water Quality FREQUENTLY ASKED QUESTIONS



Many customers have questions regarding the quality of their tap water. Below are some of the questions that are frequently asked. Please call the Call Center at **(302) 576-3878** or the Water Quality Lab at **(302) 571-4158** if you have further questions about your tap water.

FAQ 1: BROWN / YELLOW COLORED WATER ISSUES

1. Why is my water discolored?

All treated water introduced into the system is clean and clear; however, a large portion of the City's pipes are made of unlined cast iron. On occasion, the internal build-up of iron corrosion in these pipes can be released due to a disturbance event such as main breaks, construction and flushing fire hydrants. Rusty water events are usually brief and will clear up within a day or so after the disturbance is resolved and water is flushed out through your piping system. (Reference Article: Water Quality – Questions & Answers. Henry County Water Authority. HCWSA, 2015.)

2. Are there regulations for rusty water concerning health?

The Environmental Protection Agency (EPA) states that rusty water is safe to drink unless it has been contaminated with unrelated substances. The EPA has established National Secondary Drinking Water Regulations (NSDWRs) that set non-mandatory water quality standards for 15 contaminants. While the EPA does not enforce these Secondary Maximum Contaminant Levels (SMCLs), they are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. However, these contaminants are not considered a risk to human health at the SMCL. (Reference Website: <https://www.epa.gov/sdwa/secondary-drinking-water-standards-guidance-nuisance-chemicals>)

3. What should I do when rusty water appears in my faucets?

- **Step 1:** Call the Call Center **(302)-576-3877** and they will assist you in diagnosing and resolving the water issue. Contacting the Call Center is the only way the City knows there is an issue with the water. This creates an electronic record that is especially useful if there is a recurring issue.
- **Step 2:** Take a sample of the rusty COLD water in a white cup or bowl for comparison and set it aside.
- **Step 3:** Go to the lowest sink in the house, set a timer for 15 minutes and run the COLD water only. Running the hot water can cause rusty water to fill the hot water tank, which will then require it to be drained.
- **Step 4:** After 15 minutes, take another sample in another white cup or bowl and compare the first with the second. Continue to flush and keep an eye on the water color for a lightening effect. If it has not lightened call the Call Center back for further instructions.



Water Quality FREQUENTLY ASKED QUESTIONS (CONTINUED)



FAQ 2: WHY DOES MY WATER SMELL LIKE...

1. Chemicals or a Swimming Pool (Cold and Hot Water)

At the City's Water Treatment Facilities, chlorine is added to the drinking water once it has been through the filtering process. Chlorine is used as a disinfectant to eliminate harmful or deadly microorganisms that can cause potential diseases as water travels through the City's pipelines. Some people are more sensitive to smell, which can result in them smelling the presence of chlorine in their water supply. Please note that while this sensitivity to smell varies from person to person, chlorine is always present as a disinfectant in the City's drinking water.

2. Rotten Eggs or Sulfur (Hot Water)

A rotten egg odor can occur if the drain is partially clogged. When the water enters the partially clogged drain, the odor caused by the clog is pushed up out of the drain. Test this by filling a cup with the same water. If the water does not smell in the cup then it is likely a drain clog.

A rotten egg odor can also occur from hydrogen sulfide (H₂S) gas. The odor is unpleasant, but the gas is not usually harmful at the low concentrations that occur in a household water system. This is not a problem of health but aesthetics. Hot water tanks can provide an ideal environment for the production of hydrogen sulfide gas when corrosion occurs. If the rotten egg smell persists then replacing the anode may be the next step to solving the smelly water issue. Always refer to the hot water tank's manual or call a plumber before replacing anything. (Reference Article: David J. Hacker~ Project Engineer. Opflow, Phew my hot water smells like rotten eggs. ISSN: 0149-8029; Vol. 16. No. 7; July 1990.)

FAQ 3: FLUORIDE IN DRINKING WATER

3. Is there Fluoride in my drinking water?

Fluoride is a naturally occurring mineral that can enter water sources from the erosion of natural deposits or discharge from fertilizer and aluminum factories. While there is a small background level of fluoride found in the City's raw water supplies, additional levels of fluoride are added during the treatment process. This is done to promote strong teeth and protect against skeletal fluorosis (Reference Article: https://www.epa.gov/sites/production/files/2015-10/documents/2011_fluoride_questionsanswers.pdf). The addition of fluoride is also required by the State of Delaware Office of Drinking Water.

4. Are there standards for this chemical

In Delaware, the Maximum Contaminant Level (MCL) for fluoride is 2.0 ppm. MCLs describe a biological, chemical, or physical characteristic of water that may affect the taste, odor, color, or appearance (aesthetics) of water. The City is required to notify customers if the average levels of fluoride exceed the State's MCL (Reference Article: <http://www.dhss.delaware.gov/dhss/dph/hsp/pubdw.html>)



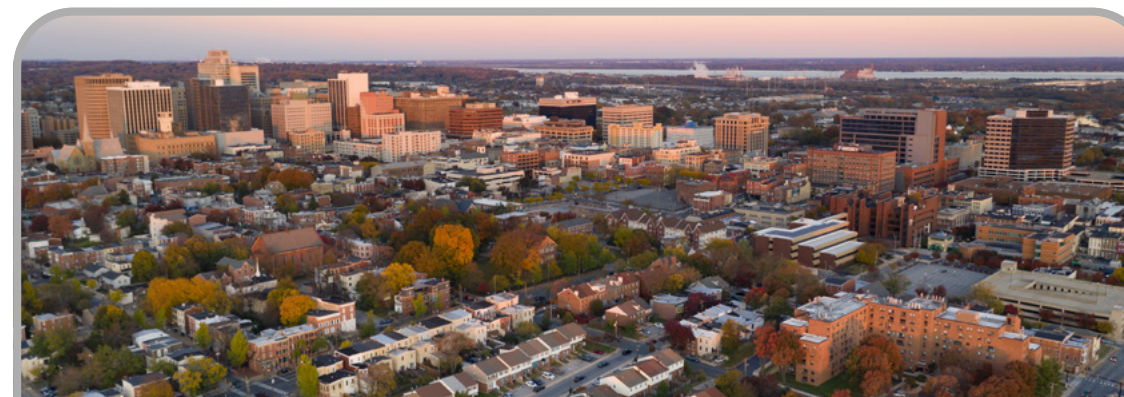
FAQ 4: LEAD IN DRINKING WATER

There is no safe level of lead in drinking water. The most common source of lead is old lead service lines. A less common source of lead is brass fixtures and fittings and lead soldered joints in the household plumbing. The City's drinking water leaving the water treatment plants and the City's water mains are not a source of lead. Water mains are generally made from either ductile iron, cast or galvanized steel. Testing at the tap is the only way to measure the lead levels in your home. Contact the Water Quality Lab **(302) 571-5148** if you would like your water tested.

More information on lead in drinking water, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline **(800) 426-4791**, or at epa.gov/safewater/lead.

QUALITY PROBLEM?

The City of Wilmington is committed to providing you with high quality drinking water. We also understand that concerns may arise at your tap and we strive to address these quickly and efficiently. If you experience issues such as: low water pressure, rusty / discolored water, or unusual taste and smell, please call our call center at **(302) 576-3878**. You will be asked a series of questions regarding your concern and then the appropriate Water Department personnel will be contacted to address your problem. If you would like your water to be sampled, one of our Water Quality Specialists will call you to schedule a time that is convenient for you.



CONTACT US

You can help us ensure the safety of our water supply by reporting any unusual or suspicious activity either on our waterways, near our reservoirs, water filtration plants, water towers, or pumping stations.

To report an incident or general water quality concerns, call the City Call Center at **(302) 576-3878**.

If you have questions about this report, call the Water Quality Laboratory at **(302) 571-4158**. Weekends or after 4 P.M., **(302) 576-3878**.

Wetland Park CONSERVATION REHABILITATION

Have you been to the South Wilmington Wetland Park? If not, you should go! The City transformed the area from an overgrown field into a wetland habitat for local birds and other animals who need a safe place to live. You can find snakes, turtles, frogs, dragonflies, and birds like ducks and herons in wetland areas. They like places that are wet and have tall grass to hide from predators. Wetland areas also help the overflow of water from nearby rivers and streams, so it doesn't flood where we live.

Water will come into the Wetland Park from the Christina River at high tide, and flow back out at low tide. When this happens, fish will be able to live in the deeper pool areas and munch on mosquitos!

The engineers who helped build the Wetland Park installed concrete walls and drains to help hold the overflow of water from the Christina River when it rains or when the tide comes in. They also built a new boardwalk that leads you right into the wetlands! They planted trees, flowers, and grasses that are perfect for protecting and providing a home for the new inhabitants.

Be sure to read the signs along the boardwalk so you can learn all about the animals living in the South Wilmington Wetland Park. How many creatures do you think live there? Maybe, if you're lucky, they will come out of their hiding spots to say "Hello!"



SCAVENGER HUNT TASKS

Use the wetland park visual to help you complete the scavenger hunt tasks by circling the items listed below:

- | | | |
|-------------------------------------|--|------------------------------------|
| ☐ Mallard | ☐ Snapping Turtle | ☐ Deer |
| ☐ Litter | ☐ Frog | ☐ Bees |
| ☐ Snake | ☐ Fish | ☐ Cattail |
| ☐ Mosquitoes | ☐ Blue Heron | ☐ Dragonfly |

Wetland Animals WORD SEARCH

Search for the types of animals found in wetlands.

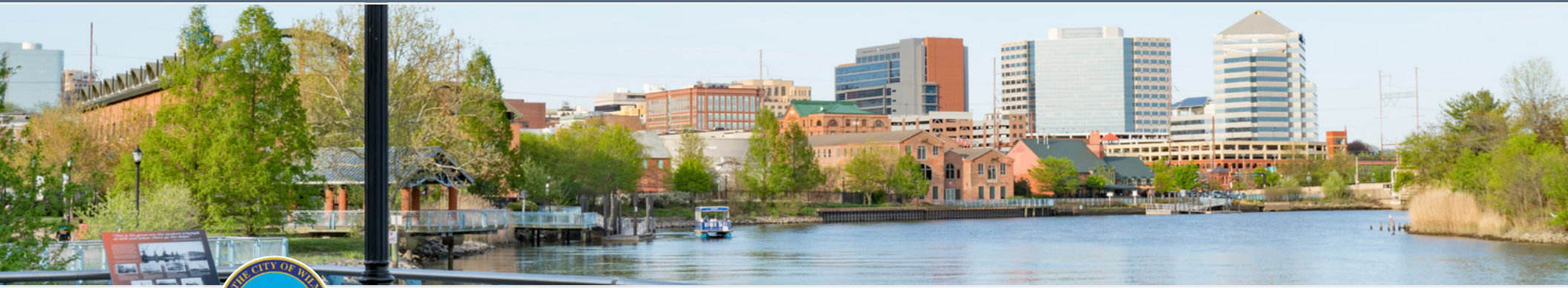
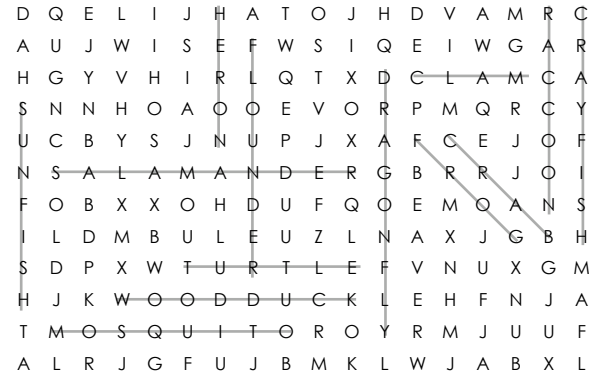
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A	U	J	W	I	S	E	F	W	S	I	Q	E	I	W	G	A	R
H	G	Y	V	H	I	R	L	Q	T	X	D	C	L	A	M	C	A
S	N	N	H	O	A	O	O	E	V	O	R	P	M	Q	R	C	Y
U	C	B	Y	S	J	N	U	P	J	X	A	F	C	E	J	O	F
N	S	A	L	A	M	A	N	D	E	R	G	B	R	R	J	O	I
F	O	B	X	X	O	H	D	U	F	Q	O	E	M	O	A	N	S
I	L	D	M	B	U	L	E	U	Z	L	N	A	X	J	G	B	H
S	D	P	X	W	T	U	R	T	L	E	F	V	N	U	X	G	M
H	J	K	W	O	O	D	D	U	C	K	L	E	H	F	N	J	A
T	M	O	S	Q	U	I	T	O	R	O	Y	R	M	J	U	U	F
A	L	R	J	G	F	U	J	B	M	K	L	W	J	A	B	X	L

- | | | |
|------------------------------------|-----------------------------------|-------------------------------------|
| ☐ BEAVER | ☐ FLOUNDER | ☐ SALAMANDER |
| ☐ CLAM | ☐ FROG | ☐ SUNFISH |
| ☐ CRAB | ☐ HERON | ☐ TURTLE |
| ☐ CRAYFISH | ☐ MOSQUITO | ☐ WOOD DUCK |
| ☐ DRAGONFLY | ☐ RACCOON | |



QUESTIONS/CONCERNS?

If you have questions about the quality of your water or are experiencing an issue such as low water pressure, rusty/discolored water, or unusual taste and smell, please call our Call Center at **(302) 576-3878** or the Water Quality Lab at **(302) 571-4158**. You will be asked a series of questions regarding your concern and then the appropriate Water Department personnel will be contacted to address your problem. If you would like your water to be sampled, one of our Water Quality Specialists will call you to schedule a time that is convenient for you.



Kelly A. Williams, Commissioner
Department of Public Works

Louis L. Redding City/County Bldg.
800 French Street, Wilmington, DE 19801-3537

DaWayne Sims, City Treasurer

wilmingtonde.gov

An electronic version of this document is available
at ccrwilmingtonde.com.

Una versión en español de este documento está
disponible por correo, previa solicitud.

Michael S. Purzycki, Mayor

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In accordance with Title VI of the Civil Rights Act of 1964, state and federal law, "no person or group shall be excluded from participation, denied any benefits, or subjected to discrimination on the basis of race, color, national origin, age, sex, religion, handicap, and/or disability." General complaints or inquiries should be directed to: Affirmative Action Officer (302) 576-2460, and persons with disabilities may contact 504 Coordinator (302) 576-2460, City of Wilmington, Personnel Department, 4th Floor, 800 French Street, Wilmington, Delaware 19801. TDD is available at (302) 571-4546.