CITY OF WILMINGTON

WATER QUALITY REPORT 2020

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 2021, includes water quality information for the 2020 calendar year.

(Full report continues on page 2)

Kelly A. Williams, Commissioner, Department of Public Works

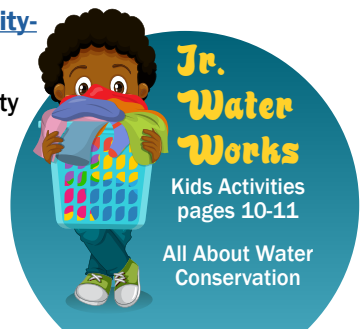
A Word from the Commissioner

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 2021, includes water quality information for the 2020 calendar year. The EPA requires all water utilities to produce and distribute water quality reports on an annual basis.

The City of Wilmington's Water Utility provides clean drinking water services to a population of about 110,000. That equates to approximately 38,000 residential and business customers located inside and outside of Wilmington's City limits. We understand that this is a stressful time for our community and for the households we serve due to the COVID-19 pandemic. Therefore, the City created the Utility Payment Assistance Program to offer assistance to all qualified individuals 18 and over.

City residents can request up to $3,000 to pay delinquent water/sewer bills. Funding from the federal Coronavirus Aid, Relief, and Economic Security (CARES) Act will be available until December 30, 2021 or sooner if available funding is dispersed before the end of this year. For more information on the program and to find out if you are eligible for assistance go to wilmingtonde.gov/government/city-departments/finance/utility-payment-assistance-program.

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.



2020 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 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 EPA's 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.

During disinfection, certain byproducts form as a result of chemical reactions between chlorine and naturally occurring organic matter in water. These are carefully controlled to keep disinfection effective and byproduct levels low.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. For more information on Lead in drinking water see **page 9** of this report.

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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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 infections. These people should seek advice about drinking water from their health care providers. EPA/U.S. Centers for Disease Control and Prevention (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)**.

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. 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[2]**	**MCL[3] or TT[4][5]**	**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.	100 - 100	100	No	100 - 100	100	No	Soil runoff
Turbidity - Values	NTU		No sample must ever exceed 1.0.	0.023 - 0.180	0.180	No	0.026 - 0.126	0.126	No	Soil runoff
Inorganic Chemicals (Metals and Nutrients)										
Barium	ppm	2	2	0.0348 - 0.0348	0.0348	No[8]	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[8]	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[8]	1.9 - 1.9	1.9	No[9]	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride	ppm	2	Delaware State MCL: 2 ppm[7]	0.37 - 1.67	1.67	No	0.37 - 1.16	1.16	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	ppm	10	10	0.7 - 5.0	5.0	No	0.6 - 4.3	4.3	No	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits
Nitrite	ppm	1	1	0.002 - 0.009	0.009	No	0.002 - 0.006	0.006	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	0.93 - 2.8	2.8	No	0.82 - 2.4	2.4	No	Water additive used to control microbes
Disinfection Byproduct Precursors										
Total Organic Carbon	ppm	N/A		0.78 - 2.42	2.42	N/A	0.08 - 1.67	1.67	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	Must exceed 35% (25% in certain instances)	9% - 76%	76%	No	41% - 70%	70%	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	1.17 - 1.38	1.38	No[10]	1.21 - 1.59	1.59	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 - 0.0	0.0	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]	0.0 - 2.2[13]	2.2[13]	No	Water additive used to control microbes.
Disinfection Byproducts							
Total Trihalomethanes	ppb	No goal for the total	80	9 - 94[14]	74[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	12 - 49[14]	34[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 (2016)	pCi/L	0	3	0.44	0.44 - 0.44	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 Polyfluroalkyl-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 Polyfluroalkyl-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	6.9	7.8	7.4	6.9	7.8	Waters with pH = 7.0 are neutral
Alkalinity	ppm as $CaCO_3$	N/A	62	33	72	58	45	72	Measure of buffering capcity of water or ability to neutralize an acid
Hardness	ppm as $CaCO_3$	N/A	115	84	136	116	100	140	Naturally occurring; Measures Calcium and Magnesium
Conductivity	µmhos/cm	N/A	335	171	490	368	284	496	General measure of mineral content
Sodium	ppm	N/A	20.5	20.5	20.5	23.7	23.7	23.7	Naturally occuring; Chemical additive to treat the water; Road salt application and run-off
Sulfate	ppm	250	17.0	17.0	17.0	16.1	16.1	16.1	Naturally occuring; Can cause objectionable taste and odor in water
Chloride	ppm	250	33	21	64	43	30	81	Naturally occurring; Chemical additive to treat the water; Road salt application and run-off
Metals									
Iron	ppb	300	38	<20	70	22	<20	70	Naturally occurring; Chemical additive to treat the water; Corrosion of pipes; Can cause discoloration in water
Manganese	ppb	50	16	6	50	13	7	19	Naturally occurring; Can cause discoloration and objectionable taste in water
Zinc	ppm	5	0.10	0.03	0.17	0.10	0.06	0.17	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 treatment technology.

[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 average of a minimum of 100 routine samples per month.

[14] Cited range is the range of all individual results in 2020.

[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

City of Wilmington and the Delaware Estuary Celebrate Earth Day and Arbor Day Virtually

The City of Wilmington continues its commitment to educating citizens about environmental stewardship through the pandemic. The Earth Day and Arbor Day celebration, traditionally the largest of its kind in Delaware, was held virtually in 2020 and 2021 with a weeklong series of events. The official dates for Earth Day and Arbor Day are April 22 and April 30, respectively.

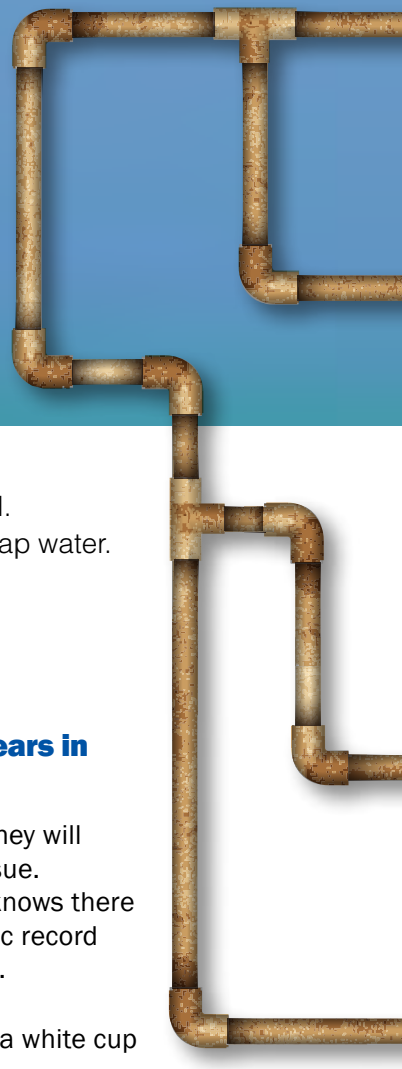
Wilmington's Earth and Arbor Day Celebration is funded by and planned in coordination with the City of Wilmington's Department of Public Works and the Partnership for the Delaware Estuary. The goal of this annual celebration is to educate the public about the importance of trees, native plants, drinkable water, and swimmable rivers, and the impact that the environment has on our everyday lives. Each day attendees had the opportunity to follow an educational, Earth-friendly theme, such as gardening, recycling, transportation, and water. The virtual event provided lots to see and do, from crafts and scavenger hunts, to bicycle safety tips, and a youth panel.

"Concern for our wonderful yet increasingly fragile natural environment is something that we all share," said Mayor Purzycki, "and this past year serves as a stark warning of what

can result when nature's delicate balance is disturbed. We come together each year to celebrate Earth Day and Arbor Day — a valuable reminder that it's in our mutual best interest to properly care for and protect the Earth so that it – and we – can look forward to a long, healthy future. As we gather virtually on this Earth Day 2021 out of an abundance of caution, let us reflect on how our common home can and should unite us behind the goal of being the best stewards we can be. Please stay safe, and I look forward to seeing everyone in person again this time next year."

To learn more and try some of the recommended activities, visit the Delaware Estuary website at delawareestuary.org/earthandarbor/

Frequently Asked Questions About Water Quality



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/dwreginfo/drinking-water-regulations#three-a-two)

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

Step1 ~ 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 with the first sample. 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.

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 in the hot water tank 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 any maintenance. (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:

1. 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. The addition of fluoride is also required by the State of Delaware Office of Drinking Water. (Reference Article: **https://www.epa.gov/sites/production/files/2015-10/documents/2011_fluoride_questionsanswers.pdf**).

2. 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: **https://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 you 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 5 P.M., **(302) 576-3878**.

Jr. Water Works

WATER CONSERVATION FACTS

Did you know that only about 0.4% of the water on Earth is available for drinking? Water **conservation** is a good and easy way to take care of our water supply. Conservation means using water wisely and not wasting it. Here are some ways you can conserve water.

Whether washing your hands for 20 seconds or **brushing** your teeth for two minutes, you don't have to keep the **faucet** running. Save 200 gallons of water in a month by turning off the tap while you scrub.

Another place to save water is in the **laundry** room. Save energy by **washing** clothes in cold water, and conserve water by only running the washer with full loads.

Did you know it takes less water to run a full **dishwasher** than to wash dishes by hand in the sink? Save more water by scraping plates into the trash rather than rinsing them before loading the dishwasher.

Have a parent help you take the top off the tank at the back of the **toilet**. Place a few drops of food coloring in the tank. If the color shows up in the bowl, you might need a new **flapper**. Don't forget to flush after!

While it might be more fun to splash in a warm bath, it takes 70 gallons of water to fill a tub but only 10 to 13 gallons for a five minute **shower**. Ask Mom and Dad to install WaterSense labeled showerheads and toilets. They work more efficiently, **saving** water and you won't notice a difference in flow!

Watering the yard is a great way to get outside in the fresh air. Just don't water in the middle of the day when temperatures are highest, or the sun will **evaporate** water before it reaches your plants.

Who's the water saver?

First read the Water Conservation Facts on the left side of this page. Then look at each picture carefully. Put an ✕ in each white circle for water wasters. Put a ✓ in each white circle for water savers. Check your answers on the back to see how many you got right.

Aiden turns off the tap while brushing.

Gabriella only runs the dishwasher when it's full.

Braylen's parents installed a new WaterSense toilet.

Starr waters the plants in the middle of the day.

Who's the water waster?

Wren runs the tap while brushing.

Marcellus runs the washer with a full load.

Hanna waters the flowers early in the morning.

Mateo likes a warm bath with bubbles.

Jada just learned about Water Conservation in her science class. She tells her friends Chloe, Finn and Steven about it and challenges them to do this word search puzzle. You can try it too! In the Water Conservation story on the left side of the previous page, look for 12 words highlighted in bold red. See if you can find all 12 in the puzzle below. Words can be horizontal, vertical or diagonal.

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

See back for solution.

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.

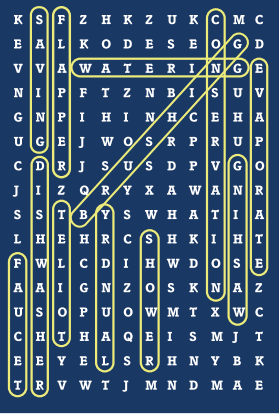
Answers to Jr. Water Works Pages:

Answers to the Water Saver/Water Waster Challenge

✓ Water Savers: Aiden, Gabriella, Braylen, Hanna, Marcellus

✗ Water Wasters: Starr, Mateo, Wren

How many did you get right? All 8 = Water Wizard! 7 = Conservation Commander, 6 = Conservation Captain, 5 = Water Watcher, 4 or less = Back to school – keep learning. You'll do better next time.







Kelly A. Williams, Commissioner
Department of Public Works
Louis L. Redding City/County Bldg.
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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.

100% From well-managed forests

Michael S. Purzycki, Mayor

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