



CITY OF
PORTSMOUTH

ANNUAL DRINKING WATER QUALITY REPORT

PORTSMOUTH WATER SYSTEM
RESULTS FROM TESTING IN 2019
PWSID 1951010

The City of Portsmouth Water Division is pleased to present the Annual Drinking Water Quality Report. This report summarizes the results of drinking water testing performed from 01/01/2019 to 12/31/2019, and is provided to keep you informed about the quality of the water you rely on every day. It is being sent to every water customer served from the Portsmouth water system (PWSID# 1951010). An extensive amount of information is provided in this report. Please contact us if you would like help understanding the information provided or have suggestions for future reports.

Our mission is to provide the community with drinking water that meets all current federal and state drinking water standards. The Portsmouth Water Division is constantly monitoring and routinely testing the drinking water according to these requirements to ensure the quality of water delivered to our customers consistently meets these water quality standards. Potential contaminants and impacts from changing weather cause new challenges. We remain vigilant in meeting the goals of water treatment, source water protection, water efficiency, system improvements, fire service capability and community education, while continuing to serve the needs of all our water users.

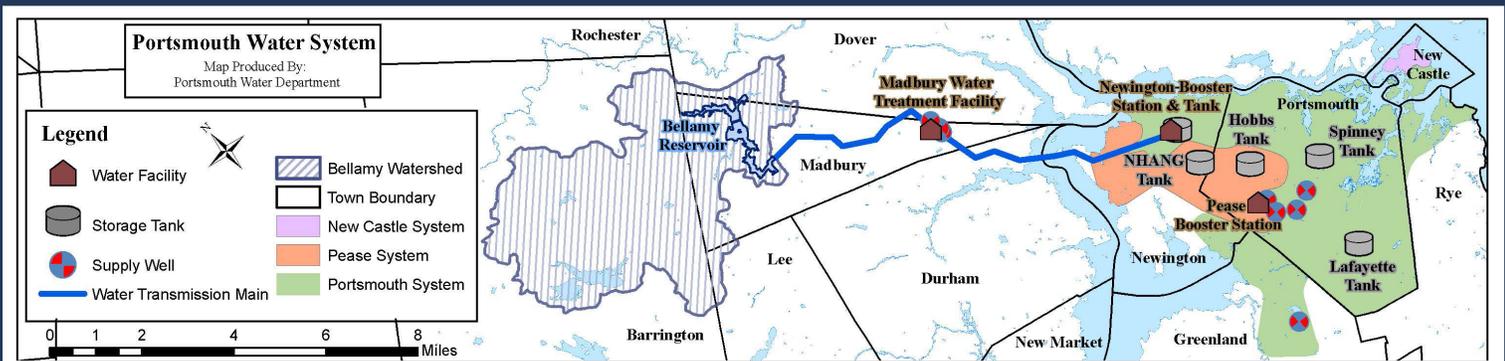
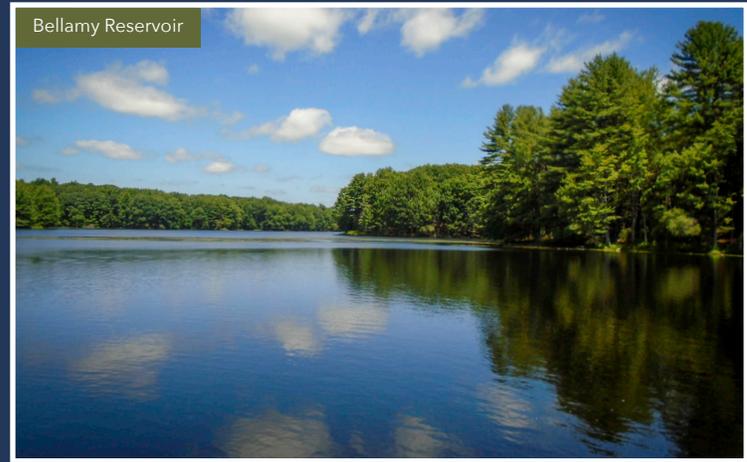
SOURCE OF YOUR DRINKING WATER

Water supplied to Portsmouth water system customers comes from a combination of surface water and groundwater sources. The surface water supply is the Bellamy Reservoir, which is located in Madbury and Dover. Water flows from a 22 square mile watershed area into the reservoir to the Water Treatment Facility (WTF) in Madbury, where it is treated using a coagulation, dissolved air flotation and dual media filtration process. The treated water is chlorinated with sodium hypochlorite before distribution into the system. Sodium hydroxide (used to adjust the final pH and alkalinity), fluoride as hydrofluorosilicic acid (used to prevent tooth decay) and poly/ortho-phosphate (a sequestering chemical to reduce precipitation of iron and manganese, and inhibit corrosion is used to protect distribution system pipes) are also added before distribution to our regionally served water customers.

There are currently three groundwater wells in Madbury (Madbury Wells #2, #3 and #4) that are pumped with the treated surface water through a transmission main to a Booster Pumping Station in Newington. Customers in Madbury, Durham, and some along Fox Point Road in Newington, receive water from the transmission main. Water is pumped from the Newington Booster Pumping Station to customers through the Portsmouth distribution system.

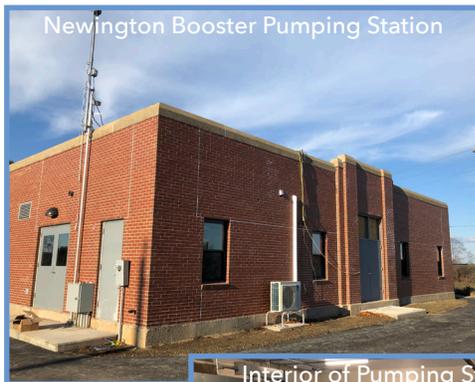
Portsmouth is also served by three groundwater wells. Two of them, Portsmouth Well #1 and Collins Well, are located off Route 33 (Greenland Road). The third well, the Greenland Well, is located off Post Road in Greenland. The area in Greenland served by the public water system, and a southern portion of Portsmouth, is primarily supplied by the Greenland Well. Sodium hypochlorite and poly/ortho-phosphate are added to the water supplied by the Portsmouth Well #1, Collins Well and Greenland Well. Fluoride as hydrofluorosilicic acid is also added at the Greenland Well.

The City also manages the Pease International Tradeport drinking water system, which is independent from the Portsmouth water system. Detailed information about the Pease water system can be found in a separate annual water quality report on the City's website.



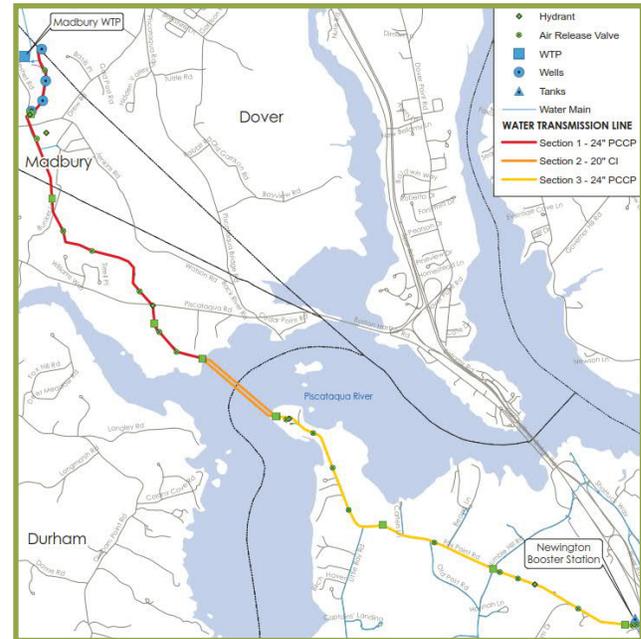
Sustainability through the Capital Improvement Plan (CIP)

Many capital improvement projects that will increase the resiliency and quality of the water system are currently underway or have been recently completed. Projects include upgrades to the Booster Pumping Station in Newington, which were completed in 2019. The project provided upgraded pumping capacity and aeration of the water storage tank to remove disinfection byproducts. Well improvements in Madbury to allow for better aquifer management. A soon-to-be constructed backwash tank at the WTF for operational improvements. The replacement of aging water mains at various locations throughout the City.



Designs are currently underway for the assessment of the water transmission mains that pass beneath Little Bay to Newington to ensure the supply from Madbury into the City is not interrupted.

Current CIP information is available online: www.cityofportsmouth.com/planportsmouth/capital-improvement-plan.



Contaminants that may be present in Drinking Water

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations limiting 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. Drinking water, including bottled water, may contain small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects are available by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material. It can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present include:

- Microbial Contaminants, such as viruses and bacteria, which may come from wastewater 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.

WATER QUALITY MONITORING

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons (e.g., 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 especially at risk from infections. These people should seek advice about drinking

water from their health care providers.

The U.S. EPA/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 at 800-426-4791 or www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-hotline.

Lead and Copper

The Portsmouth Water Division takes the responsibility of protecting your health very seriously. We want you to make informed decisions about your drinking water. Lead is not present in the water when it leaves our treatment and well facilities, or in the water mains that run below the streets. However, lead can be present in old service line connections that tie homes to the water system or plumbing inside homes and businesses. Due to the age of many homes in Portsmouth and surrounding towns, and the associated potential for leaded plumbing components, we encourage customers to have their water tested by a certified laboratory, especially if there are children under six or pregnant women in the household. We actively adjust the water chemistry at the treatment facility and well facilities according to our Corrosion Control Program, to reduce the potential for lead in households to dissolve into the water and end up at the tap. But if lead is present in your plumbing system, and is in contact with water, some risk remains. Information about our Corrosion Control Program can be found online: www.cityofportsmouth.com/publicworks/water.

Lead was a common material used in plumbing until the 1980s. It is a powerful toxin that is harmful to human health. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Pregnant women, infants and young children are especially vulnerable because even low levels of lead in the blood of children can result in behavior and learning problems, lower IQ and hyperactivity, slowed growth, hearing problems and anemia. Adults who drink water with lead concentrations over 15 parts per billion (ppb) over many years could develop kidney problems or high

blood pressure.

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 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 the tap for 30 seconds to two (2) minutes before using water for drinking or cooking. Do not use hot 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. Additional information is available from NHDES by calling 603-271-2516 or online: www.des.nh.gov/organization/divisions/water/dwgb/lead-copper.

In 2019, 32 homes served by the Portsmouth water system were sampled for lead and copper. Of these, one (1) site had a lead level above the EPA Action Level (AL) of 15 ppb. Twenty-nine of the samples were below the laboratory method detection limit of 1 ppb, and two (2) samples had approximately 1 ppb of lead. The Portsmouth water system is currently in compliance with the lead and copper rule. We will continue to monitor lead and copper at 30 or more sites in the Portsmouth system over the third quarter in 2020. For more information on this topic, please visit the City's website.

Fluoridation

Your public water supply is fluoridated. According to the CDC, if your child under the age of six months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information. Dental fluorosis, in moderate or severe forms, may result in brown staining and/or pitting of the permanent teeth before they erupt from the gums. Concerns for dental fluorosis arise when fluoride levels are greater than 2 mg/L.

The City of Portsmouth's water operations staff were recently awarded a NH Safe Lives certificate for fluoride optimization in the Portsmouth water system. This award recognized our water operators for achieving optimal level of fluoride levels (0.7 parts per million) in our drinking water system.



WATER QUALITY MONITORING

Per- and Polyfluoroalkyl Substances (PFAS)

On September 30, 2019 the NHDES established limits on the concentrations of four per- and polyfluoroalkyl substances (PFAS) in drinking water. The NHDES maximum contaminant level (MCL) for drinking water and groundwater is 15 parts per trillion (ppt) for perfluorooctane-sulfonic acid (PFOS), 12 ppt for perfluorooctanoic acid (PFOA), 11 ppt for Perfluorononanoic Acid (PFNA), and 18 ppt for Perfluorohexane sulfonic acid (PFHxS). The EPA Health Advisory concentration has remained at 70 (ppt) for (PFOS) and (PFOA) since 2016. Enforcement of these limits is currently on hold due to an ongoing lawsuit, however, the City of Portsmouth will continue to monitor and operate our system following New Hampshire's standards.

Over the past six years, the Harrison Well and Smith Well in the Pease Tradeport water system, and Portsmouth Well #1 and Collins Well in the Portsmouth water system, have been routinely monitored for PFAS by the Air Force. The City of Portsmouth samples all of the Portsmouth water supply sources at least twice per year, and since October 2019 is sampling quarterly. Sample results from 2019 are summarized in the PFAS table below. All monitoring data is available online: www.cityofportsmouth.com/publicworks/water. For more information about PFAS health effects, go to www.atsdr.cdc.gov/sites/pease/index.html.

PER- AND POLYFLUOROALKYL SUBSTANCE (CONCENTRATIONS* REPORTED IN NG/L OR PPT)	NHDES MAXIMUM CONTAMINANT LEVEL (MCL)		PORTSMOUTH WELL #1	COLLINS WELL	GREENLAND WELL	MADBURY WELL #2	MADBURY WELL #3	MADBURY WELL #4	BELAMY RESERVOIR	WATER TREATMENT PLANT
# of samples in 2019			13	15	4	3	3	3	3	3
% of water supplied in 2019			7.2%	4.5%	11.0%	1.3%	3.7%	5.6%	66.6%	
6:2 Fluorotelomer sulfonate (6:2 FTS)	not regulated	Average	BD	BD	BD	BD	BD	BD	BD	BD
		Range	ND-1	ND-1	ND-1	ND-1	ND-1	ND-2	ND-1	ND-2
Perfluorobutane-sulfonic acid (PFBS)	not regulated	Average	2	13	2	2	1	2	1	1
		Range	ND-3	ND-17	2	1 - 3	1 - 2	2	1	1
Perfluorobutanoic acid (PFBA)	not regulated	Average	3	4	2	2	2	1	2	2
		Range	ND-3	ND-8	1 - 3	1 - 2	1 - 2	ND-1	1 - 2	1 - 4
Perfluoroheptanoic acid (PFHpA)	not regulated	Average	2	1	2	2	1	1	1	1
		Range	ND-3	ND-1	1 - 3	1 - 2	1	ND-1	1 - 2	1 - 2
Perfluorohexane-sulfonic acid (PFHxS)	18	Average	5	2	2	1	1	1	BD	BD
		Range	ND-7	ND-2	2	1	ND-1	ND-1	ND-1	ND-1
Perfluorohexanoic acid (PFHxA)	not regulated	Average	4	1	4	2	2	1	1	1
		Range	ND - 4	ND - 2	3 - 6	1 - 3	1 - 2	ND-1	1 - 2	1 - 2
**Perfluorooctane-sulfonic acid (PFOS)	15	Average	4	3	3	2	2	1	1	BD
		Range	ND-6	ND-6	3	2	2 - 3	ND-1	ND-2	ND-1
**Perfluorooctanoic acid (PFOA)	12	Average	5	3	3	3	2	2	3	2
		Range	ND-8	ND-8	2 - 4	1 - 4	2 - 3	1 - 2	2 - 3	2 - 3
Perfluoropentanoic acid (PFPeA)	not regulated	Average	4	3	4	3	2	1	2	1
		Range	ND-6	ND-6	1 - 6	2 - 3	2	ND-1	1 - 2	1 - 2
** PFOS + PFOA	not regulated	Average	8	6	7	3	3	2	3	3
		Range	ND-13	ND-13	5 - 8	1 - 6	2 - 4	1 - 3	2 - 5	2 - 4

Averages are calculated using all results that are above the method detection limit.

*Due to laboratory analytical method limitations, low concentrations reported for these chemicals are considered estimates unless the amount measured is above 20 ng/L (ppt).

**EPA Health Advisory Level and NHDES AGQS for PFOS and PFOA concentration separately or combined is 70 ng/L (ppt).

Averages are calculated using half of the method detection limit for samples that were less than detection, per EPA risk assessment protocols.

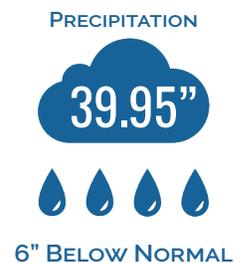
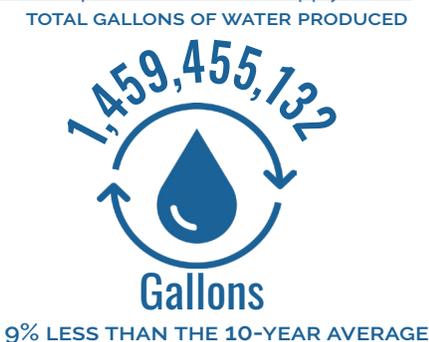
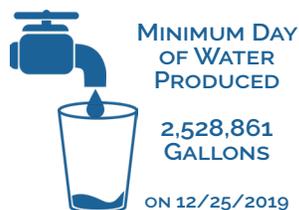
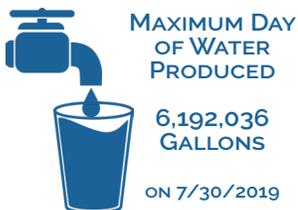
ND (none detected): Indicates that the substance was not found by laboratory analysis.

BD (below detected level): Average calculated using half of detection limits for non-detect values resulted in average below the detection limit.

PFAS analyzed but not detected in the samples: 8:2 Fluorotelomer sulfonate (8:2 FTS), N-Ethyl perfluorooctane sulfonamide (EtFOSA), N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE), N-Methyl Perfluorooctane Sulfonamide (MEFOSA), N-Methyl Perfluorooctane Sulfonamidoethanol (MEFOSE), Perfluorodecane sulfonate (PFDS), Perfluorodecanoic acid (PFDA), Perfluorododecanoic acid (PFDoA), Perfluoroheptane sulfonate (PFHpS), Perfluorononanoic acid (PFNA), Perfluorooctane sulfonamide (PFOSA), Perfluorotetradecanoic acid (PFTeDA), Perfluorotridecanoic acid (PFTrDA), and Perfluoroundecanoic acid (PFUnA).

Water Supply Statistics

The City of Portsmouth routinely provides information about the water supply availability through its Water Supply Updates. These updates can be accessed through the City's website at: www.cityofportsmouth.com/publicworks/water/supply-status. Summary of last year's key water supply statistics below.



WATER QUALITY RESULTS

The City of Portsmouth conducts extensive monitoring to guard against contaminants in your drinking water according to federal and state laws. The results of our drinking water monitoring are reported in tables below and on page 7.

Regulated Contaminants Detected

During the past year, we have taken hundreds of water samples in order to monitor and test for the presence of radioactive, biological, inorganic, volatile organic and synthetic organic contaminants. The tables show **only** those contaminants that were detected in the water. Many more parameters were tested for, but not detected. They are not included in this report. The state requires us to monitor 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 when the sample was taken.

Unregulated Contaminants Detected

Portsmouth continues to participate in the fourth stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program that started in 2018. The UCMR program benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water. This helps the EPA determine if it needs to introduce new regulatory standards to improve drinking water quality. Chemicals analyzed for UCMR 4 included ten cyanotoxins, two metals, eight pesticides, one pesticide manufacturing byproduct, three brominated haloacetic acids, three alcohols, and other semi-volatile chemicals. The results of these tests are summarized in this report. Chemicals that were not detected are not included in the data table.

In addition to the UCMR4 monitoring, samples of the Bellamy Reservoir untreated water were collected between October 2018 and September 2019 and tested for Cryptosporidium as part of the EPA Long-Term 2 Enhanced Surface Water Treatment Rule requirements. None of the samples contained Cryptosporidium, so the NHDES determined that no additional surface water treatment is needed to meet this rule requirement.

Source Water Assessment

The Portsmouth Water Division routinely updates inventories of potential contaminant threats and is actively pursuing opportunities to increase the protection of our groundwater supplies and the Bellamy Reservoir through property and easement acquisitions.

New Hampshire Department of Environmental Services (NHDES) prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the State's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources and a summary of available protection options. The results of the assessment, prepared in 2002, are provided in a table below. Risk factors, such as proximity of highways and proximity of known contamination, are ranked and summarized in the summary of susceptibility ratings section in terms of the number of factors per risk category. The complete assessment report is available for review at the DPW office and online: www.des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm.

Water Quality Parameters

The water quality parameters are routinely monitored to assess the general characteristics of the water supply. Note that the range of some of these parameters illustrates the differences between the characteristics of the surface water supply and the groundwater supply.

	PARAMETERS (UNITS)	AVERAGE LEVEL	RESULTS RANGE	SECONDARY DRINKING WATER STANDARD SMCL
WATER QUALITY PARAMETERS	Chloride (ppm)	92	33 - 329	250
	Copper (ppb)	39	1 - 197	1300
	Iron (ppb)	43	10 - 550	300
	Manganese (ppb)	27	2 - 103	50
	pH	N/A	6.9 - 7.7	6.5 - 8.5
	Sulfate (ppm)	11	3 - 25	250
	Conductivity (umhos/cm)	406	223 - 1471	N/A
	Alkalinity (ppm)	41	23 - 166	N/A
	Hardness (ppm as CaCO3)	38	16 - 228	N/A
	Ortho-Phosphate (ppm)	1.06	0.64 - 1.76	N/A
	Sodium (ppm)	46	24 - 180	250
	Zinc (ppb)	9	<0.1 - 18.3	5000

SOURCE WATER ASSESSMENT RESULTS	SYSTEM	SOURCE INFORMATION	SUMMARY OF SUSCEPTIBILITY RATINGS		
			HIGH	MEDIUM	LOW
PORTSMOUTH					
		Greenland Well - GPW 003	4	3	5
		Portsmouth Well - GPW 004	5	4	3
		Madbury Well 2 - GPW 006	2	4	6
		Madbury Well 3 - GPW 007	0	5	7
		Madbury Well 4 - GPW 008	2	4	6
		Bellamy Reservoir - 009	1	6	5
		Collins Well - GPW 010	4	1	7

2019 WATER QUALITY RESULTS

	CONTAMINANT (UNIT OF MEASUREMENT)	VIOLATION (Y/N)	LEVEL MEASURED	RANGE	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION	
MICROBIOLOGICAL CONTAMINANTS	Total Organic Carbon (% removal)	N	Average % Removal: 72.2	63.3 - 84.6	N/A	TT: minimum removal 45% - 50%	Naturally present in the environment	
	Total Coliform Bacteria	N	NO total coliform bacteria were detecting in the 360 distribution system samples that were collected and analyzed in 2019					Naturally present in the environment
	Turbidity (NTU)	N	Highest Measurement: 0.45	0.01 - 0.45	N/A	1	Soil runoff	
	Turbidity (Lowest monthly percent of samples meeting limit)	N	99.99%	N/A	N/A	TT=95% of samples < or = 0.3 NTU	Soil runoff	
DISINFECTION BYPRODUCTS	Haloacetic Acids (ppb)	N	Highest LLRA: 44	12 - 56	N/A	60	Byproduct of drinking water disinfection	
	Total Trihalomethanes (ppb) (Bromodichloro-methane, Bromoform, Dibromomethane, Chloroform)	N	Highest LLRA: 53	14 - 81	N/A	80	Byproduct of drinking water chlorination	
LEAD AND COPPER	Lead (ppb)	N	90th Percentile = 0	1 site above AL (32 sites sampled)	15	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits	
	Copper (ppm)	N	90th Percentile = 0.205	0 sites above AL (32 sites sampled)	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
INORGANIC CONTAMINANTS	Arsenic (ppb)	N	Highest Level Measured: 1.5 Avg Source Level: <1	<1 - 1.5	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	
	Barium (ppb)	N	Highest Level Measured: 22.4 Avg Source Level: 13.4	8.8 - 22	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
	Chlorine (ppm)	N	Highest Level Measured: 1.66 Avg System Level: 0.89	0.08 - 1.66	MRDLG = 4	MRDL = 4	Water additive used to control microbes	
	Chromium (total) (ppb)	N	Highest Level Measured: 1.7 Avg Source Level: <1	<1 - 1.7	100	100	Discharge from steel and pulp mills; erosion of natural deposits	
	Fluoride (ppm)	N	Highest Level Measured: 1.18 Avg Level: 0.62	0.43 - 1.18	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	
	Nitrate (as Nitrogen) (ppm)	N	Highest Level Measured: 5.1 Avg Source Level: 2.5	<0.2 - 5.1	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
RADIOACTIVE CONTAMINANTS	Compliance Gross Alpha (pCi/L) 2016 data	N	Highest Level Measured: 1	<1 - 1	0	15	Erosion of natural deposits	
	Uranium (ug/L)	N	Highest Level Measured: 1.6	1.2 - 1.6	0	30	Erosion of natural deposits	
	Combined Radium 226 + 228 (pCi/L) 2016 data	N	Highest Level Measured: 1.96	<1 - 1.96	0	5	Erosion of natural deposits	
UNREGULATED SUBSTANCES	Manganese (ppb)	N	Average Source Level: 21.9	2.50 - 211			Naturally-occurring element used in a variety of applications including use in steel production to improve hardness, stiffness and strength. Essential nutrient found in vitamin/mineral supplement and in fortified foods	
	HAA5 (ppb)	N	Average Distribution Level: 32	0.3 - 57			Byproducts of drinking water disinfection	
	HAA6Br (ppb)	N	Average Distribution Level: 5.5	2.9 - 8.4			Byproducts of drinking water disinfection	
	HAA9 (ppb)	N	Average Distribution Level: 38	0.30 - 65			Byproducts of drinking water disinfection	
PFAS	Per- and Polyfluoroalkyl Substances (PFAS)	N	See PFAS section	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps; U.S. manufacture of PFOS phased out in 2002; however, PFOS still generated incidentally. Perfluorinated aliphatic carboxylic acid (PFOA); used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films				

DEFINITIONS OF TERMS

- AGQS (Ambient Groundwater Quality Standard): Groundwater quality standard established by the State of New Hampshire per Env-Or 600.
- 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.
- N/A (not applicable): Sampling was not completed by regulation or was not required.
- ND (none detected): Indicates that the substance was not found by laboratory analysis.
- 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 micro-grams per liter).
- ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).
- NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.
- LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.



City of Portsmouth
Department of Public Works Water Division
680 Peverly Hill Road
Portsmouth, NH 03801

Learn More



Learn more about water quality online at:
www.cityofportsmouth.com/publicworks/water/drinking-water-quality

Contact City staff about your water quality questions.

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Ask general water quality questions via the
Environmental Protection Agency's Safe
Drinking Water Hotline at (800) 426-4791.

Rebate Program & Pay Online



Water efficiency rebate programs are available for residential customers. Learn more about the residential toilet and washing machine rebate program online: www.cityofportsmouth.com/publicworks/water/water-efficiency-rebate-program

We are excited to offer residents a new, easy and convenient method to view and pay bills online: www.cityofportsmouth.com/city/pay-my-bill

Speak with a staff member at our Billing Office located in City Hall at (603) 610-7248 or (603) 610-7237.

Get Involved



It's your drinking water and your input is important. Attend and comment at a City Council meeting. Meeting agendas can be found on the City's website or posted in the lobby of City Hall at 1 Junkins Avenue.

Meetings are broadcast on Portsmouth's Government TV Channel 22 and on the City's YouTube Channel.

www.youtube.com/CityofPortsmouth



twitter.com/PortsmouthDPW

