ANNUAL WATER QUALITY REPORT

Reporting Year 2021

Presented By

TOWN OF PITTSBORO, NORTH CAROLINA 1787

PWS ID#: 0319015

We've Come a Long Way

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

What are PPCPs?

When cleaning out your medicine cabinet, what do you do with your expired pills? Many people flush them down the toilet or toss them into the trash. Although this seems convenient, these actions could threaten our water supply.

Recent studies are generating a growing concern over pharmaceuticals and personal care products (PPCPs) entering water supplies. PPCPs include human and veterinary drugs (prescription or over-the-counter) and consumer products, such as cosmetics, fragrances, lotions, sunscreens, and housecleaning products. From 2006 to 2010, the number of U.S. prescriptions increased 12 percent to a record 3.7 billion, while nonprescription drug purchases held steady at around 3.3 billion. Many of these drugs and personal care products do not biodegrade and may persist in the environment for years.

The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean. Never flush unused medications down the toilet or sink. Instead, check to see if the pharmacy where you made your purchase accepts medications for disposal, or contact your local health department for information on proper disposal methods and drop-off locations. You can also go online (https://goo.gl/aZPgeB) to find more information about disposal locations in your area.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The town conducts public meetings on the second and fourth Monday of each month at 7:00 p.m. For more information on how to attend the public meeting, please visit https://pittsboronc.gov

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or online at: http://water.epa.gov/drink/hotline.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Adam Pickett, Public Utilities Director, or Cory Saulsbury, Pittsboro Water Plant Superintendent, at (919) 542-3530.

FOG (Fats, Oils, and Grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a wastebasket.

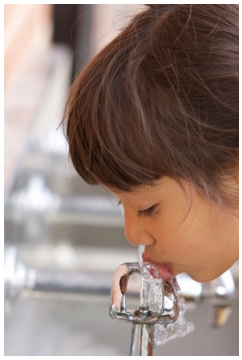
ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container, such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products, including nonbiodegradable wipes.

Source Water Description

Our source water is extracted from the Haw River.

Source Water Assessment Program (SWAP)



The North Carolina Department of Environmental Quality (NC DEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The complete Source Water Assessment Program Report for the Town of Pittsboro may be viewed at ncwater.org/?page=600.

If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name, number, and provide your name, mailing address, and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or online at: www.epa.gov/safewater/lead.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
1,2-Dichloroethane (ppb)	2021	5	0	ND	0.5–5	No	Discharge from industrial chemical factories
Alachlor (ppb)	2021	2	0	ND	0.2–2	No	Runoff from herbicide used on row crops
Arsenic (ppb)	2021	10	0	ND	5–10	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste
Atrazine (ppb)	2021	3	3	ND	1–3	No	Runoff from herbicide used on row crops
Barium (ppm)	2021	2	2	ND	0.400–2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Benzene (ppb)	2021	5	0	ND	0.5–5	No	Discharge from factories; Leaching from gas storage tanks and landfills
Cadmium (ppb)	2021	5	5	ND	1–5	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Carbofuran (ppb)	2021	40	40	ND	0.9–40	No	Leaching of soil fumigant used on rice and alfalfa
Carbon Tetrachloride (ppb)	2021	5	0	ND	0.5–5	No	Discharge from chemical plants and other industrial activities
Chloramines (ppm)	2021	[4]	[4]	3.3	2.0–4.0	No	Water additive used to control microbes
Chlorine (ppm)	2021	[4]	[4]	3.2	2.0–4.0	No	Water additive used to control microbes
Chlorobenzene (ppb)	2021	100	100	ND	0.5–100	No	Discharge from chemical and agricultural chemical factories
Chromium (ppb)	2021	100	100	ND	20–100	No	Discharge from steel and pulp mills; Erosion of natural deposits
cis-1,2-Dichloroethylene (ppb)	2021	70	70	ND	0.5–70	No	Discharge from industrial chemical factories
Cyanide (ppb)	2021	200	200	ND	50–200	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Dalapon (ppb)	2021	200	200	ND	1–200	No	Runoff from herbicide used on rights-of-way
Dichloromethane (ppb)	2021	5	0	ND	0.5–5	No	Discharge from pharmaceutical and chemical factories
Dinoseb (ppb)	2021	7	7	ND	0.2–7	No	Runoff from herbicide used on soybeans and vegetables
Ethylbenzene (ppb)	2021	700	700	ND	0.5–700	No	Discharge from petroleum refineries
Fluoride (ppm)	2021	4	4	0.35	0.30–1.0	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2021	60	NA	9	10–60	No	By-product of drinking water disinfection
Heptachlor (ppt)	2021	400	0	ND	40–400	No	Residue of banned pesticide
Hexachlorocyclopentadiene (ppb)	2021	50	50	ND	0.1–50	No	Discharge from chemical factories
Methoxychlor (ppb)	2021	40	40	ND	0.1–40	No	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Nitrate (ppm)	2021	10	10	ND	1–10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2021	1	1	ND	0.10–1	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Oxamyl [Vydate] (ppb)	2021	200	200	ND	1.0–200	No	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes
Picloram (ppb)	2021	500	500	ND	0.1–500	No	Herbicide runoff

REGULATED SUBSTANCES CONTINUED

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Simazine (ppb)	2021	4	4	ND	0.047–4	No	Herbicide runoff
Tetrachloroethylene (ppb)	2021	5	0	ND	0.5–5	No	Discharge from factories and dry cleaners
Toluene (ppm)	2021	1	1	ND	0.0005–1.0	No	Discharge from petroleum factories
Total Organic Carbon [TOC] (removal ratio)	2021	TT[1]	NA	1.2	1.0–3.0	No	Naturally present in the environment
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2021	80	NA	34	10–80	No	By-product of drinking water disinfection
trans-1,2-Dichloroethylene (ppb)	2021	100	100	ND	0.5–100	No	Discharge from industrial chemical factories
Trichloroethylene (ppb)	2021	5	0	ND	0.5–5	No	Discharge from metal degreasing sites and other factories
Turbidity[2] (NTU)	2021	TT = 1 NTU	NA	0.25	0.02–0.25	No	Soil runoff
Xylenes (ppm)	2021	10	10	ND	0.0005–10	No	Discharge from petroleum factories; Discharge from chemical factories

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Color (units)	2021	15	NA	5	1–15	No	Naturally occurring organic materials
Fluoride (ppm)	2021	2.0	NA	0.35	0.30–0.80	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Iron (ppb)	2021	300	NA	0.20	0.10–0.50	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2021	50	NA	0.10	0.10–0.50	No	Leaching from natural deposits
pH (units)	2021	6.5-8.5	NA	7.5	7.2–8.0	No	Naturally occurring

[1] Depending on the TOC in our source water, the system must have a certain percentage removal of TOC or achieve alternative compliance criteria. If we do not achieve that percentage removal, there is an alternative percentage removal. If we fail to meet the alternative percentage removal, we are in violation of a treatment technique.

[2] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

Definitions

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

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

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 under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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

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

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

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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.

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

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

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

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

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