

Annual Drinking Water Quality Report Borough of Butler Water Department For the Year 2014, Results from the Year 2013

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water.

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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We draw our water from the Kakeout reservoir on Bubbling Brook Road in the Borough off Kinnelon, Morris County. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at WWW.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system to obtain information regarding your water system's Source Water Assessment. This water system's source water susceptibility ratings and a list of potential contaminant sources is included.

TEST RESULTS						
Contaminant:	Violation Y/N	Level Detected	Units of Measurement	MC LG	MCL	Likely Source of Contamination
Microbiological Contaminants:						
Turbidity Test results Yr. 2013	N	99.9 % < 0.3 NTU Highest detect = 0.47	NTU	N/A	TT=% of samples <0.3NTU	Soil runoff
Total Organic Carbon Test results Yr. 2013	N	Running Annual Average = 1.0	Mg/l	N/A	TT % of removal	Naturally present in the environment
Total coliform Bacteria	N	1 positive routine sample in August 2013		0	1 positive	Naturally present in the environment
Inorganic Contaminants:						
Lead Test results Yr. 2011 Results at 90 th Percentile	N	2.4 2 samples out of 20 exceeded the action level.	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Copper Test results Yr. 2011 Results at 90 th Percentile	N	0.1 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Arsenic Test results Yr. 2013	N	0.6	ppb	N/A	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium Test results Yr. 2013	N	11.8	ppb	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride Test results Yr. 2013	N	0.05	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nickel Test results Yr. 2013	N	1.2	ppb	N/A	N/A	Erosion of natural deposits
Disinfection Byproducts:						
Disinfection Byproducts Stage-1						
TTHM Total Trihalomethanes Test results Yr. 2013	N	Monthly Average Range = 20 - 60 Running Annual Average = 34	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2013	N	Monthly Average Range = 20 - 28 Running Annual Average = 26	ppb	N/A	60	By-product of drinking water disinfection
Disinfection Byproducts Stage-2						
TTHM Total Trihalomethanes Test results Yr. 2013	N	Range = 59 - 63 Highest Detection = 63	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2013	N	Range = 20 - 35 Highest Detection = 35	ppb	N/A	60	By-product of drinking water disinfection
Regulated Disinfectants		Level detected	MRDL		MRDLG	
Chlorine – Test results Yr. 2013		Average = 0.7 ppm	4 ppm		4 ppm	

A new Disinfection Byproduct Rule called Stage II took effect for this water system in 2013. The first compliance calculations for this system will be available after the third quarter of 2014 once a full year of monitoring has been completed. After the third quarter of 2013, Stage I was phased out. Stage II HAA5 and TTHM compliance is based on the locational running annual average (LRAA) calculated at each monitoring location. The LRAA for Stage II HAA5s and TTHMs is not included in this report since Stage II monitoring began in the fourth quarter of 2013, so there were only results for one quarter of 2013 and the LRAA calculation is based on four completed quarters of results.

We had a positive routine Total Coliform (TC) Bacteria sample in August 2013. We immediately re-sampled all test results were negative. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

For additional information:

If you have any questions about this report or concerning your water utility, please contact Ed Becker, Chief Water Treatment Plant Operator at 973-838-1146. If you want to learn more, please attend any of our regularly scheduled meetings. Meetings are held at Borough Hall, 1 Ace Road, on the third Tuesday of each month at 7:00 p.m.

The Butler Water Department routinely monitors for over 80 contaminants in your drinking water according to Federal and State laws. This table lists only those contaminants detected, and shows the results of our monitoring from January 1st to December 31st, 2013. 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.

Potential sources of contamination:

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.

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 nitrates 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 byproducts 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. 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 contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Definitions:

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Total Organic Carbon (TOC) - We are required to remove a certain percentage of (TOC) from our drinking water on a monthly basis. Total Organic Carbon has no adverse health effects. However, TOC provides a medium for the formation of disinfection byproducts.

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

Maximum Contaminant Level - The "Maximum Allowed" (MCL) 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.

Maximum Contaminant Level Goal -The "Goal"(MCLG) is 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.

Maximum Residual Disinfectant Level (MRDL) - 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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 contamination

Lead: 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. The Butler Water Department is responsible for providing high quality drinking water, but can not 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 second to 2 minutes before using water for drinking and 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 <http://www.epa.gov/safewater/lead>.

To ensure the continued quality of your water:

We treat our water in several ways. We filter, add alum and caustic soda to promote clarity and control pH, and we add a small amount of chlorine to disinfect, as a precautionary measure. We use polyphosphate to protect residential plumbing.

Waivers:

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received a monitoring waiver for synthetic organic chemicals.

We at the Butler Water Department work hard to provide top quality water to every tap. We ask that all our residents help us protect our water sources, which are the heart of our community, our way of life and our children’s future. Please call our office if you have questions.

Butler Water Department- PWSID # 1403001

Butler Water Department is a public community water system consisting of 0 well(s), 0 wells under the influence of surface water, 1 surface water intake(s), 0 purchased ground water source(s), and 1 purchased surface water source(s).

This system’s source water comes from the following aquifer(s) and/or surface water body(s) (if applicable): Kakeout Reservoir

This system purchases water from the following water system(s) (if applicable): PVWC

Susceptibility Ratings for Butler Water Department Sources

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system’s source water assessment report.

The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes’ susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors					
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L			
Wells - 0																											
GUDI - 0																											
Surface water intakes - 1	1					1			1			1			1			1			1	1					

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

Disinfection Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

IMPORTANT NOTICE- PLEASE READ

BUTLER WATER DEPARTMENT HYDRANT FLUSHING PROGRAM

The Butler Water Department will be conducting its Spring hydrant flushing program beginning **On or about April 14, 2014**. The program will take approximately five weeks to complete and will be conducted at various hours of the day and night. This is part of our continuous efforts to improve water quality to our customers as well as serving the following purposes:

- It flushes sediment from mainline pipes
- It verifies the proper operation of fire hydrants

Residents may learn which areas are being flushed checking our website www.butlerborough.com for our daily flushing schedule.

WHAT SHOULD I DO WHEN THE BOROUGH CREWS ARE FLUSHING IN MY AREA?

If you see a Borough Crew Flushing a hydrant on your street, avoid running tap water and using the washing machine or the dishwasher until the flushing is done. If you see hydrant flushing crews working in the area, please drive carefully.

WHAT SHOULD I DO AFTER HYDRANT FLUSHING?

- If tap water is used during flushing, it could come out discolored or with brown sediment. If this happens, turn the water off and wait several minutes. After waiting, check the clarity by running cold water for a few minutes allowing new water to work its way into your pipes. If the water is clear, it's ok to use. If not, wait a few more minutes and check again. In some cases, there may be slight discoloration for a few hours. **This discoloration only affects the appearance of the water and does not affect the water quality.**
- Avoid washing laundry during flushing times as it may stain clothes. Wait until after the area has been flushed and then run the tap water until clear. Then proceed to wash a dark load of clothes first if possible.
- If pressure or volume seems low, check your faucet screens for trapped particles.

RESIDENTS MAY EXPERIENCE SOME DISCOLORATION OF THE WATER FOR A SHORT PERIOD OF TIME (FEW HOURS). IT IS NOT HARMFUL TO YOUR HEALTH AND THIS CONDITION CAN BE REMEDIED BY ALLOWING THE WATER TO RUN UNTIL CLEAR.

If you have any questions or problems during normal working hours (7AM-3:30PM) please call 973-838-7200 ext. 418. After normal business hours, please call 973-838-0063.

FOR A SCHEDULE OF WHERE WE WILL BE FLUSHING, GO TO www.butlerborough.com

THANK YOU FOR YOUR COOPERATION.