

PWSID# (0412001)

Annual Drinking Water Quality Report
Borough of Collingswood Water Department
For the Year 2018- Results from the
Years 2016, 2017 & 2018

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. We want you to understand the efforts we make to continually improve the treatment processes and protect our existing water resources.

Our water is safe to drink and meets all water quality standards set by the State and Federal agencies. For more information or questions, please call the Borough of Collingswood Water Department Superintendent at 856-854-2332. The Borough of Collingswood Commission meetings are held on the first Monday of each month starting at 7pm. We encourage public participation in decisions that affect our drinking water quality.

History:

The Borough of Collingswood supplies drinking water to all of Collingswood, Woodlynne and a portion of Haddon Township. Our water system service area covers approximately 50 linear miles of water mains ranging from 4" to 16" with over 6,000 active service connections serving approximately 21,000 people. All service connections for businesses and residents are metered.

Water Source:

The Borough of Collingswood currently obtains its entire water supply from five (5) underground confined wells located in the Potomac Raritan Magothy Aquifer geological formation. The wells range from 250 to 320 feet deep. All of our potable well sources are located throughout the Borough of Collingswood. Four (4) of our wells are currently located in the vicinity of the Highland & Hillcrest Ave Water Treatment Plant which is located at 215 Hillcrest Ave. The remaining well is located at the Comly & Cattell Avenue Water Treatment Plant.

The ground water wells pump untreated water to our primary treatment plant through a network of underground pipes. The water is processed and purified before being pumped to our customers.

Our Treatment Facilities Consist of:

Aeration: The process of bringing water and air into contact in order to remove dissolved gases which may be corrosive to our water supply.

Sedimentation: The process of removing suspended matter such as iron and manganese by gravity settling.

Filtration: Removing almost all suspended matter that remains by passing the water through a sand medium.

Corrosion Control: The addition of a zinc phosphate to control scaling and deposits formation on water lines throughout the water system.

Air Stripping: A tower aerator consisting of a cylindrical tank filled with a packing material. Water is distributed over the material at the top of the tank while air is forced through the bottom using a blower. The primary purpose of air stripping is to remove all traces of Volatile Organic Compounds.

Disinfection: Chlorine is added as the final treatment before entering the water system for disinfection, which is required under state and federal regulations.

The following information is required by the United States Environmental Protection Agency (USEPA) to be placed in all **Consumer Confidence Reports**:

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 land or through the ground, it dissolves naturally occurring minerals and in some cases radioactive material and can pick up substances resulting from animal or 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 salts and metals which can be naturally occurring or 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 use.
- * 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 stormwater 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 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 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 **(800-426-4791)**

Water Quality Data Table Explanation:

This portion of the report is based upon testing conducted in the years 2016, 2017 and 2018, by the Borough of Collingswood. In the table that follows, you will find many terms and abbreviations with which you may not be familiar. To help you better understand these terms, we've provided the following definitions:

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.

Maximum Contaminant Level (MCL): 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 (MCLG): 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.

Picocuries Per Liter or pCi/L: A measure of radioactivity

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

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

Parts Per Million/ Parts Per Billion: For example, one part per million is the equivalent of 1/2 of a dissolved aspirin tablet in a full bathtub of water (approximately 50 gallons). One part per billion is equivalent to 1/2 of a dissolved aspirin tablet in 1,000 bathtubs of water (approximately 50,000 gallons).

Non-Detects (ND): Laboratory analysis indicates that contamination is not present.

Inorganic Compounds: The mineral-type compounds, such as metals and salts found in drinking water.

Secondary Compounds: compounds, which effect drinking water aesthetics such as taste, odor and color.

Source: The major origin of the compounds detected in water.

90th percentile: 90% of samples are equal to or less than the number in the chart.

Water Footnotes:

1. The Borough of Collingswood tested over 240 microbiological analyses in the distribution system in 2018 and no presence of coliform bacteria was detected in any of the sample analyses.
2. Nitrate and Nitrite tests at both water plants were taken in 2018. Nitrate results were detected between 0.16 PPM and 0.32 PPM entering the water system. The test results of Nitrate were well in compliance with the maximum level set at 10 PPM.
3. A set of sample's for Asbestos was taken in the water distribution system in 2011 as part of the Asbestos waiver program. No concentration of Asbestos was detected in any of the samples.
4. The Borough of Collingswood completed two rounds of sampling for Unregulated Contaminates in 2008 and 2009. The sample test results for the sampling were non-detect.
5. The Borough of Collingswood tested for radionuclides in 2011 at our Hillcrest Water Plant. All test results were well within the EPA and NJDEP guidelines for radionuclides.

6. The Borough of Collingswood tested for lead and copper in 2016 at thirty (30) selected residential homes in our water system. All test results were in compliance at the 90th percentile. Our next round of sampling will be in the summer of 2019.
7. Secondary and Inorganic compounds were tested at each point of entry in 2017. These set of samples represent water from each treatment plant prior to entering the water distribution system.
8. A synthetic organic compound (SOC) waiver for the compliance period 2017-2019 was received from the NJDEP.

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 infection. These people should seek advice about drinking water from their health care providers.

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

The Borough of Collingswood Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of years 2016, 2017 & 2018.

Table of Detected Contaminants

Inorganic Compounds							
Substances.	Units	MCL	MCLG	Highest Detection	Range	Source	Violation
Sulfate	ppm	250	*	57.2	48.8 to 57.2	Erosion of Natural Deposits	No
Nitrate	ppm	10	10.0	.32	.16 to .32	Erosion of Natural Deposits	No
Fluoride	ppm	4.0	4.0	<.01	<.01 to <.01	Erosion of natural Deposits	No
Sodium	ppm	50	50	22.2	20.6 to 22.2	Erosion of natural Deposits	No
Secondary Chemical Compounds							
Chloride	ppm	250	50	41.6	37.4 to 41.6	Erosion of natural Deposits	No
Zinc	ppm	5	*	.24	<.05 to .24	Erosion of Natural Deposits	No
Total Dissolved Solids	ppm	500	500	240	223 to 240	Erosion of Natural Deposits	No

Lead & Copper								
Lead	ppb	15	0	6.4	<2.0 to 6.4	Corrosion of Household plumbing	No	
Copper	ppm	1.3	0	.90	<0.01 to .90	Corrosion of Household plumbing	No	
THM	ppb	80	n/a	38.3	0 to 38.3 ppb	By-Product of Chlorination	No	
Highest LRAA site was Q-3 at 18 ppb (Locational running annual average) (Total Trihalomethanes)								
HAA5	ppb	40	n/a	ND	ND	By-Product of Drinking Water Chlorination	No	
Radioactive Compounds								
Total Alpha	pCi/l	15	0	11.9	7.9 to 11.9	Erosion of Natural Deposits	No	
Radium-226	pCi/l	5	0	<1	<1 to <1	Erosion of Natural Deposits	No	
Radium-228	pCi/l	5	0	1.5	<1 to 1.5	Erosion of Natural Deposits	No	
Uranium	ppb	30	0	11.9	7.9 to 11.9	Erosion of Natural Deposits	No	

Volatile Organics

Substance	Units	MCL	MCLG	Highest detection	Range	Source	Violation
cis-1,2 Dichloroethylene	ppb	70	70	1.63	0 to 1.63	Discharge from in Industrial chemical factories	No
1,2-Dichloroethane	ppb	2	2	.7	0 to .7	Discharge from industrial chemical factories	No
MTBE	ppb	70	70	11.1	0.7 to 11.1	Gasoline additive	No

NOTE:

We have learned through our monitoring and testing that some contaminants have been detected. As you can see by the table, our system had no MCL violations however. We are proud that your drinking water meets or exceeds all Federal and State monitoring requirements.

Special Consideration Regarding Children, Pregnant Women, Nursing Mothers, and Others.

Children may receive a slightly higher amount of contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than adults. For this reason, reproductive or developmental effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In the case of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six month of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

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 Borough of Collingswood is 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 your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

The following important simple steps can be taken to avoid possible exposure to lead and copper:

1. Allow the water to run until it is cold (about 30-60 seconds) if the water has been standing in the internal plumbing pipes for over six hours.

2. Use only cold water for cooking, drinking and making baby formula.
3. Use only lead free solders when making plumbing repairs.
4. If you replace faucets, check the label for lead content or lead leaching potential.

Source Water Assessment:

The New Jersey Department of Environmental Protection has completed and issued the Source Water Assessment and Summary Report for the Borough of Collingswood. The Source Water Assessment was performed on all of our existing ground water source wells # 1 thru 7. A susceptibility rating was used for each of the ground water sources that currently deliver water to our residents. These ratings range from low, medium or high for a particular category. For groundwater volatile organic compounds, inorganic compounds and radio-nuclides have a higher susceptibility than surface water. Pathogens and pesticides have a low susceptibility and nutrients and disinfection byproduct precursors have a medium susceptibility. The information on the Borough of Collingswood Source Water Protection Plan can be obtained by logging onto NJDEP Source Water Web Site www.state.nj.us/dep/swap/ or by contacting the NJDEP Bureau of Safe Drinking Water at 609-292-5550.

The portion of the study, which rated high, does not indicate that the customer is drinking contaminated water. The Borough of Collingswood is required to monitor for all of these regulated compounds.

Unregulated Contaminants

The Borough of Collingswood is not required by EPA or NJDEP to sample for Cryptosporidium or Radon. However a full scan of unregulated contaminates was performed in 2014.

Additional Contaminants Monitored

The Borough of Collingswood tested for Asbestos in 2011 at selected sites and indicated Non Detect (ND) of Asbestos fibers in the drinking water.

The Borough of Collingswood does not add fluoride to the water. Parents of young children may want to consult with their dentist about their need for fluoride treatments.

Variances and Exemptions

The New Jersey Bureau of Safe Drinking Water issued the Borough of Collingswood a waiver for the sampling of synthetic organic compounds (SOCs) pesticides based on the vulnerability of the source water to possible contamination by these substances. Samples were collected and analyzed by NJDEP at our # 5 well, which did not indicate any SOC's exceeding their respective trigger values.

Green Festival

The Borough of Collingswood, under the direction of Commissioner Joan Leonard, held another successful Green Festival event on 21 April 2018. This was the tenth year of the event which has vastly improved each year. Water conservation kits, storm water information pamphlets and props including the diagram of a well and the topography surrounding it were just some of the topics highlighted at our water environmental booth.

The water department will continue to promote water conservation and education with our water resources at the eleventh annual festival scheduled for 13 April 2019. Everyone is encouraged to attend.

Many of the water professional organizations in New Jersey volunteer and donate their time and resources to make this an educational and family fun event.

Capital Improvements:

We have put together our capital plan in which we will outline priority infrastructure projects. Some of the projects will include continuing commitment to upgrade our existing treatment plants, replace undersized water mains and water service connections from the street to the curb.

The Water Department is continuing to upgrade our existing water meter system in order to improve meter reading efficiency as well as enhance service to our customers. We believe the primary benefit our customers will receive from the new meter reading system is the convenience of having the water meter read remotely, increasing the timeliness and accuracy of the billing process. There will no longer be a need to install remote boxes on the outside of your house or business. All new water meters will be read by radio read signals. If you would like to set up an appointment to replace your existing remote meter, please contact us at 856-854-2332. There is no charge for the installation.

The Borough of Collingswood replaced the water main and all services on Harrison Avenue.

The Borough of Collingswood has drilled a new well to meet current and future demands. The new well housing and pump setting are currently being designed to be added to the system in 2019.

The Hillcrest filter plant filters are currently being automated. This will decrease labor and increase the frequency of filter backwashes. The sand in each filter will be changed out. The filters will then be sand blasted and painted. This will increase the water quality and allow the filters to remain online for years to come.

The chlorine system at Comly Ave was replaced along with the chlorine analyzer in 2018.

Operations and Security:

The events of September 11 and recent natural disasters have clearly demonstrated the importance of water supply systems throughout the United States and the world. The Borough of Collingswood is making every effort to implement and develop plans to protect all aspects of our water supply infrastructure while working closely with all the respected regulatory and enforcement agencies. The Borough of Collingswood has developed and implemented a vulnerability assessment of our water system. This assessment was submitted to the US Environmental Protection Agency (EPA) and NJDEP Bureau of Safe Drinking Water in 2004 and has been updated periodically.

The Borough of Collingswood was required to follow up with an Emergency Response Plan that has been developed and submitted to all of the appropriate government agencies. All plans must be updated every (2) years with our existing operations and maintenance emergency manual.

The Borough of Collingswood is committed to providing our customers with the highest quality of water and service.

We believe in education and strongly urge our employees to attend various classes and seminars on water treatment processes and distribution operations. All licensed water operations personnel are mandated to continue with post educational training.

Water Department Superintendent Richard Spafford prepared this report. Should you have any additional questions about our water supply or service, please feel free to call 856-854-2332.