

# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2017



***Presented By***  
**South River Water Treatment**

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Este relatório contém a informação importante sobre sua água bebendo. Tenha-o por favor traduzido por um amigo ou por alguém que o compreende e o pode o traduzir para você.

此份有關你的食水報告，  
內有重要資料和訊息，請找  
他人為你翻譯及解釋清楚。

## Quality First

Once again, we are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations,



source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

## Source Water Assessment

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued a Source Water Assessment Report of our drinking water sources, which is available at [www.state.nj.us/dep/swap](http://www.state.nj.us/dep/swap) or by contacting NJDEP Bureau of Safe Drinking Water at (609) 292-5550. The purpose of the assessments was to determine the susceptibility of each drinking water source to potential contaminant sources (PCSs) and assign a relative rating of high, moderate, or low for each source. The PCSs include pathogens; nutrients; pesticides; volatile organic compounds; inorganics; radionuclides; radon; and disinfection by-product precursors.

The relative susceptibility rating of the water source for the Borough of South River was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the watershed and its delineated assessment area). The assessment reported a susceptibility rating from low to high for our water source. This susceptibility rating does not imply poor water quality; rather, it signifies the system's potential to become contaminated in the assessment area.

If you have any questions about these findings, please contact us during regular business hours.

## 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.

## Protecting Your Water

Bacteria are a natural and important part of our world. There are approximately 40 trillion bacteria living in each of us; without them, we would not be able to live healthy lives. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern, however, because it indicates that the water may be contaminated with other organisms that can cause disease.

In 2016, the U.S. EPA passed a new regulation called the Revised Total Coliform Rule, which requires additional steps that water systems must take to ensure the integrity of the drinking water distribution system by monitoring for the presence of bacteria like total coliform and *E. coli*. The rule requires more stringent standards than the previous regulation, and it requires water systems that may be vulnerable to contamination to have in place procedures that will minimize the incidence of contamination. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment of their system and correct any problems quickly. The U.S. EPA anticipates greater public health protection under the new regulation due to its more preventive approach to identifying and fixing problems that may affect public health.

Although we have been fortunate to have the highest-quality drinking water, our goal is to eliminate all potential pathways of contamination into our distribution system, and this new rule helps us to accomplish that goal.

Water treatment is a complex, time-consuming process.

## 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 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, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/lead](http://www.epa.gov/lead).

## Where Does My Water Come From?

The South River Water Utility draws its water from two sources: the Farrington Sands Aquifer and the East Brunswick Water Utility. The Farrington Sands Aquifer is a deepwater source, in which South River draws from three wells. East Brunswick supplies about half of our water supply. They receive their water from the Round Valley Spruce Run Reservoir System. Also, East Brunswick purchases water from the Middlesex Water Company, which uses surface water sources. During 2016, the utility distributed more than 390,964 million gallons of water.



## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. Please call the Municipal Building at 732-257-1999 for dates of the public meetings. The meetings are held at the Criminal Justice Building, 61 Main Street, South River, New Jersey.

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Robert Baker, Water Treatment Plant Operator, at (732) 254-5233.

## Count on Us



Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Maintaining optimal water chemistry;
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.



## BY THE NUMBERS

The number of gallons of water produced daily by public water systems in the U.S. **34 BILLION**

**1 MILLION** The number of miles of drinking water distribution mains in the U.S.

The amount of money spent annually on maintaining the public water infrastructure in the U.S. **135 BILLION**

**300 MILLION** The number of Americans who receive water from a public water system.

The age in years of the world's oldest water found in a mine at a depth of nearly two miles. **2 BILLION**

**151 THOUSAND** The number of active public water systems in the U.S.

The number of highly trained and licensed water professionals serving in the U.S. **199 THOUSAND**

**93** The number of federally regulated contaminants tested for in drinking water.

## How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily 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.

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.

| REGULATED SUBSTANCES <sup>1</sup>  |              |            |              |                             |                |                            |                             |                |   |           |  |
|--|--------------|------------|--------------|-----------------------------|----------------|----------------------------|-----------------------------|----------------|---|-----------|--|
|  |              |            |              | Borough of South River      |                |                            | East Brunswick Township     |                |   |           |  |
| SUBSTANCE (UNIT OF MEASURE)  | YEAR SAMPLED | MCL [MRDL] | MCLG [MRDLG] | AMOUNT DETECTED             | RANGE LOW-HIGH | AMOUNT DETECTED            | RANGE LOW-HIGH              | VIOLATION      | TYPICAL SOURCE  |           |  |
| Haloacetic Acids [HAA] (ppb)   | 2017         | 60         | NA           | 42.15                       | 5.0–47.15      | 26.72                      | 18.12–44.84                 | No             | By-product of drinking water disinfection   |           |  |
| Nitrate (ppm)  | 2017         | 10         | 10           | 0.021                       | NA             | NA                         | NA                          | No             | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |           |  |
| TTHMs [Total Trihalomethanes] (ppb)  | 2017         | 80         | NA           | 57.4                        | 46–59          | 50.40                      | 26.5–76.90                  | No             | By-product of drinking water disinfection   |           |  |
| Tap water samples were collected for lead and copper analyses from sample sites throughout the community |              |            |              |                             |                |                            |                             |                |   |           |  |
|  |              |            |              | Borough of South River      |                |                            | East Brunswick Township     |                |   |           |  |
| SUBSTANCE (UNIT OF MEASURE)  | YEAR SAMPLED | AL         | MCLG         | AMOUNT DETECTED (90TH%TILE) | RANGE LOW-HIGH | SITES ABOVE AL/TOTAL SITES | AMOUNT DETECTED (90TH%TILE) | RANGE LOW-HIGH | SITES ABOVE AL/TOTAL SITES  | VIOLATION | TYPICAL SOURCE   |
| Copper (ppm)   | 2016         | 1.3        | 1.3          | 0.906                       | NA             | 0/30                       | 0.167                       | NA             | 0/30  | No        | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead (ppb)   | 2016         | 15         | 0            | ND                          | NA             | 0/30                       | ND                          | NA             | 0/30  | No        | Corrosion of household plumbing systems; Erosion of natural deposits |

| SECONDARY SUBSTANCES        |              |     |      |                        |                |                 |                         |           |   |  |  |
|-----------------------------|--------------|-----|------|------------------------|----------------|-----------------|-------------------------|-----------|---|--|--|
|                             |              |     |      | Borough of South River |                |                 | East Brunswick Township |           |   |  |  |
| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | RUL | MCLG | AMOUNT DETECTED        | RANGE LOW-HIGH | AMOUNT DETECTED | RANGE LOW-HIGH          | VIOLATION | TYPICAL SOURCE                                    |  |  |
| Iron (ppb)                  | 2017         | 300 | NA   | 291                    | NA             | 0.00702         | NA                      | No        | Leaching from natural deposits; Industrial wastes |  |  |
| Manganese (ppb)             | 2017         | 50  | NA   | 89                     | NA             | NA              | NA                      | No        | Leaching from natural deposits                    |  |  |

<sup>1</sup>Under a waiver granted on December 30, 1998, by the State of New Jersey Department of Environmental Protection, our system does not have to monitor for synthetic organic chemicals/pesticides because several years of testing have indicated that these substances do not occur in our source water. The SDWA regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals, and synthetic organic chemicals. Our system received monitoring waivers for synthetic organic chemicals and asbestos.

## Definitions

**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. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

**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.

**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).

**RUL (Recommended Upper Limit):** RULs are established to regulate the aesthetics of drinking water like appearance, taste and odor.