OUR MISSION CONTINUES

We are pleased to present you with 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 water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

WHAT’S THE SOURCE OF MADISON’S DRINKING WATER?

Our water source is wells. Our 5 wells draw groundwater from a Buried Valley Aquifer System. The capacity of the wells ranges from 1.1 million gallons per day (MGD) to 1.9 MGD. The wells discharge into a system of underground piping and two elevated water tanks. The Madison Avenue tank holds 500,000 gallons and the Midwood Terrace tank holds 750,000 gallons.

EPA REGULATIONS

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 800-426-4791.

SUBSTANCES THAT COULD BE IN WATER

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (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.

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 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas projection, 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 by-products 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.
CONCERNS ABOUT 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 Madison is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. The Borough tests for lead on a regular basis and has confirmed that Madison does not have elevated lead readings in its public water supply. 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.

TEST RESULTS (TABLE A)

The following table 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 following the table. 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.

THE SAFE DRINKING WATER ACT

We constantly monitor the water supply for various contaminants. The Safe Drinking Water Act regulations allow for waivers and reduced monitoring on certain volatile organic chemicals, synthetic organic chemicals and lead and copper.

We at the Borough of Madison work hard to provide top quality water to every tap. We ask that all our customers help us to protect our water resources, which are the heart of our community, our way of life and our children’s future.

CONTAMINATION RISKS

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).

TEST RESULTS (TABLE B)

The Madison Borough 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 January 1st to December 31st, 2017. The state allows us to monitor for some contaminants less than one per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.
The Madison treatment facility removed Volatile Organic Compounds. Volatile results are pre-treatment, no chemicals have been added.

<table>
<thead>
<tr>
<th>CONTAMINANT</th>
<th>VIOLATION</th>
<th>LEVEL DETECTED</th>
<th>UNITS OF MEASUREMENT</th>
<th>MCLG</th>
<th>MCL</th>
<th>LIKELY SOURCE OF CONTAMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coliform Test Results Yr. 2017</td>
<td>No</td>
<td>ND</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Alpha Test results Yr. 2017 - Treatment A + B</td>
<td>No</td>
<td>&lt;3</td>
<td>pCi/L</td>
<td>0</td>
<td>15</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Well C</td>
<td>No</td>
<td>&lt;3</td>
<td>pCi/L</td>
<td>0</td>
<td>15</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Well D</td>
<td>No</td>
<td>&lt;3</td>
<td>pCi/L</td>
<td>0</td>
<td>15</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Well E</td>
<td>No</td>
<td>&lt;3</td>
<td>pCi/L</td>
<td>0</td>
<td>15</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Combined Radium-226 &amp; 228 Test results Yr. 2017 - Treatment A + B</td>
<td>No</td>
<td>&lt;1</td>
<td>pCi/L</td>
<td>0</td>
<td>5</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Well C</td>
<td>No</td>
<td>1.17</td>
<td>pCi/L</td>
<td>0</td>
<td>5</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Well D</td>
<td>No</td>
<td>&lt;1</td>
<td>pCi/L</td>
<td>0</td>
<td>5</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Well E</td>
<td>No</td>
<td>1.5</td>
<td>pCi/L</td>
<td>0</td>
<td>5</td>
<td>Erosion of Natural Deposits</td>
</tr>
<tr>
<td>Arsenic Test results Yr. 2017</td>
<td>No</td>
<td>Range = 1.07 - 1.35</td>
<td>ppm</td>
<td>n/a</td>
<td>5</td>
<td>Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes</td>
</tr>
<tr>
<td>Iron Test Results Yr. 2017</td>
<td>No</td>
<td>&lt;0.1</td>
<td>ppm</td>
<td>0.05</td>
<td>0.3</td>
<td>Natural Deposits</td>
</tr>
<tr>
<td>Manganese Test Results Yr. 2017</td>
<td>No</td>
<td>&lt;0.005</td>
<td>ppm</td>
<td>0.01</td>
<td>0.05</td>
<td>Natural Deposits</td>
</tr>
<tr>
<td>Barium Test Results Yr. 2017</td>
<td>No</td>
<td>Range = 0.019 - 0.047</td>
<td>ppm</td>
<td>2</td>
<td>2</td>
<td>Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits</td>
</tr>
<tr>
<td>Fluoride Test Results Yr. 2017</td>
<td>No</td>
<td>0.05</td>
<td>ppm</td>
<td>4</td>
<td>4</td>
<td>Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories</td>
</tr>
<tr>
<td>Copper Test Results Yr. 2015</td>
<td>No</td>
<td>0.09 No samples exceeded the action level</td>
<td>ppm</td>
<td>1.3</td>
<td>AL = 1.3</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>Lead Test Results Yr. 2015</td>
<td>No</td>
<td>7.0 No samples exceeded the action level</td>
<td>ppb</td>
<td>0</td>
<td>AL = 15</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits</td>
</tr>
<tr>
<td>Nitrate (as nitrogen) Test Results Yr. 2017</td>
<td>No</td>
<td>Range = 1.63 - 1.97</td>
<td>ppm</td>
<td>10</td>
<td>10</td>
<td>Runoff from fertilizer use; leaching from septic tanks; sewage; erosion or natural deposits</td>
</tr>
<tr>
<td>TTHM (total trihalomethanes) Test Results Yr. 2017</td>
<td>No</td>
<td>Range = 1.448 - 13.23</td>
<td>ppm</td>
<td>N/A</td>
<td>80</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>HAAS (haloacetic acids) Test Results Yr. 2017</td>
<td>No</td>
<td>Range ND - 2.48</td>
<td>ppm</td>
<td>N/A</td>
<td>60</td>
<td>By-product of drinking water disinfection</td>
</tr>
</tbody>
</table>

**Definitions**

- **Pathogens:** Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.
- **Inorganics:** Minerals, elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.
- **Pesticides:** Man-made chemicals used to control pests, weeds, and fungi. Common sources include land application, and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and pesticides such as chloridane.
- **Radionuclides:** Radioactive substances that are both naturally occurring and man-made. Examples include iodium and uranium.
- **Radon:** Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to [http://www.epa.gov/depp/radon/index.htm](http://www.epa.gov/depp/radon/index.htm) or call (800) 648-0394.
- **Disinfection Byproduct Precursors:** Can be a common source naturally occurring or man-made. Examples include iodium and uranium.
- **Inorganics:** Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrogen.
- **Radioactive Contaminants:** Radioactive substances that are both naturally occurring and man-made. Examples include iodium and uranium.

**Volatile Organic Compounds**

- **Sources:** Pathogens, nutrients, pesticides, volatile organic compounds, inorganics, radionuclides, radon, disinfection byproduct precursors.

**Unregulated contaminants**

- UCMR3 Test Results Yr. 2013
- Highest level detected
- Chlorate: No, 44, ppb, N/A, N/A, Unregulated contaminant monitoring
- Chromium: No, 2.1, ppb, N/A, N/A, Unregulated contaminant monitoring
- Hexavalent Chromium (Dissolved): No, 2.3, ppb, N/A, N/A, Unregulated contaminant monitoring
- Strontium: No, 260, ppb, N/A, N/A, Unregulated contaminant monitoring
- Vanadium: No, 3.8, ppb, N/A, N/A, Unregulated contaminant monitoring
- 1,4-Dioxane: No, 0.319, ppb, N/A, N/A, Unregulated contaminant monitoring

**Regulated Disinfectants**

- Level Detected (Average & Highest Detect): MRDL, MRDLG
- Chlorine: 0.15 Average 0.5 Hugh, 4.0 ppm, 4.0 ppm
Borough of Madison
Hartley Dodge Memorial
50 Kings Road
Madison, New Jersey 07940

2018 WATER QUALITY REPORT
For the Year 2018, Results from the Year 2017

MADISON WATER DEPT.
The Madison Water Department is a public community water system consisting of 5 wells, 0 wells under the influence of surface water and 0 surface water intake(s).

Also, if applicable, 4 purchased surface and ground water sources, 2 ground water sources and 2 surface/ground water mix. This system’s source water comes from the following aquifer(s) and/or surface water body(s) (if applicable): Chatham Valley water aquifer system.

This system purchases water from the following water system(s) (if applicable): Florham Park Water Department, Southeast Morris County MUA, Chatham Water Department, NJ American Water Company.

QUESTIONS?
If you have any questions about this report or concerning your water utility, please contact Tom DeBiasse at 973-593-3092. If you want to learn more, please attend any of our regularly scheduled Borough Council meetings at Hartley Dodge. The meeting schedule is posted online at www.rosenet.org

DID YOU KNOW...
The Madison Water Department is staffed by three employees, and, on a single hot day can pump over 3 million gallons of water.

SOURCE WATER ASSESSMENT REPORT & SUMMARY
The New Jersey Department of Environmental Protection (NJDEP) prepared Source Water Assessment Reports and Summaries for all public water systems. Further information on the Source Water Assessment Program can be obtained by logging onto NJDEP's source water assessment web site 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 at 973-593-3092.

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