To comply with State regulations, Birchland will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. Last year, your tap water met all State drinking water health standards.

If you have any questions about this report or concerning your drinking water, please contact David Warrick at (607) 739-0070. You can also call the Chemung County Health Department at (607) 737-2019.

**Where does our water come from?**

In general, 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 can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations, which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is groundwater supplied through a 73-foot-deep well. In 2015 we added a 70-foot well to serve as a backup source. Together with our natural gas powered generator, we can now provide reliable water service in most emergency situations. The water is disinfected with sodium hypochlorite prior to distribution.

Our water system serves 50 people through 25 service connections. During 2018 our system supplied sufficient water to meet our needs.

**Are there contaminants in our drinking water?**

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test 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.

It should be noted that all drinking water, including bottled drinking water, may be reasonably 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 EPA's Safe Drinking Water Hotline, (800) 426-4791, or the Chemung County Health Department at (607) 737-2019.
### Contaminants Detected in 2018 (or most recent test)

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation Y/N</th>
<th>Date Sampled</th>
<th>Level Detected</th>
<th>Unit of Measure</th>
<th>MCLG</th>
<th>MCL</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium</td>
<td>N</td>
<td>11/2017</td>
<td>0.1 mg/L</td>
<td>mg/L</td>
<td>2</td>
<td>2</td>
<td>Naturally occurring;</td>
</tr>
<tr>
<td>Chlorine residual</td>
<td>N</td>
<td>Monthly</td>
<td>Average 0.2 mg/L</td>
<td>mg/L</td>
<td>MRDLG 4</td>
<td>MRDL 4</td>
<td>Disinfectant necessary to control microbes</td>
</tr>
<tr>
<td>Copper</td>
<td>N</td>
<td>07/2017</td>
<td>90th% = 0.025 mg/L</td>
<td>mg/L</td>
<td>1.3</td>
<td>AL 1.3</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>(5 samples) Note 1</td>
<td></td>
<td></td>
<td>Range: 0.1–0.4 mg/L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>N</td>
<td>07/2017</td>
<td>90th% = 0.6 ug/L</td>
<td>ug/L</td>
<td>0</td>
<td>AL 15</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>(5 samples) Note 1</td>
<td></td>
<td></td>
<td>Range: ND to 1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese</td>
<td>N</td>
<td>11/2016</td>
<td>507 ug/L</td>
<td>ug/L</td>
<td>N/A</td>
<td>300</td>
<td>Naturally occurring;</td>
</tr>
<tr>
<td>Note 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methylene Chloride</td>
<td>N</td>
<td>11/2017</td>
<td>5.8 ug/L</td>
<td>ug/L</td>
<td>N/A</td>
<td>5</td>
<td>Used as a solvent in paint strippers and metal cleaners. It is often a “false positive” because it was picked up from the air at the sample site or lab.</td>
</tr>
<tr>
<td>Note 4</td>
<td>N</td>
<td>12/2017</td>
<td>ND</td>
<td>ug/L</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrate</td>
<td>N</td>
<td>12/2018</td>
<td>1.0 mg/L</td>
<td>mg/L</td>
<td>10</td>
<td>10</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage</td>
</tr>
<tr>
<td>Sodium</td>
<td>N</td>
<td>11/2016</td>
<td>11 mg/L</td>
<td>mg/L</td>
<td>N/A</td>
<td>Note 3</td>
<td>Naturally occurring, road salt contamination.</td>
</tr>
</tbody>
</table>

**Note 1:** 90th% is the average of the 2 highest of 5 samples from customer homes. In the 2017 test round, none of the samples exceeded the Action Level for Copper or Lead.

**Note 2:** The MCL for iron and manganese is set at 300 ug/L because above this level it can cause nuisance staining. The State allows higher levels because of the difficulty and expense of treatment, and the absence of health effects.

**However, our water should not be used to prepare baby formula.** Manganese is an essential nutrient and is already included in baby formula concentrate. Additional manganese from the water results in too high a level and could be a problem for infants. Use bottled water for preparing baby formula.

**Note 3:** No MCL. Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

**Note 4:** The Health Department has determined that the methylene chloride reported in our routine November sample was due to contamination while sampling or at the lab. No trace was found in the check sample collected the next month. Note that our well has never shown a trace of methylene chloride or related chemicals in 12 rounds of testing since 1990.
Definitions used in the table:

**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.

**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.

**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.

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

**Milligrams per liter (mg/l)**: Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Micrograms per liter (ug/l)**: Corresponds to one part of liquid in one million parts of liquid (parts per billion - ppb).

**Not Detected (ND)**: Laboratory analysis indicates that the constituent is not present.

**Not Applicable (N/A)**

What does this information mean?
As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

Is our water system meeting other rules that govern operations?
During 2018, our system was in compliance with all New York State regulations.

Do I Need to Take Special Precautions?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).
Lead Educational Statement: 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. Birchland 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, 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.

Source Water Assessment:
The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the well. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from drilled wells. The source water assessment has rated the wells as having a very-high susceptibility to microbials, nitrates and a medium-high susceptibility to industrial solvents, and other industrial contaminants. While no significant sources of contamination have been identified in the assessment area, the well is considered unprotected from these types of contaminants.

Please note that, while the source water assessment rates our well as being susceptible to microbials, our water is disinfected to ensure that that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination. County and state health departments will use this information to direct future source water protection activities. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us.

How can I help save water?

Saving water lessens the strain on the water system during a dry spell or drought. You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water.

Closing:

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. Please contact me if you have questions.

Sincerely yours,

David Warrick
NYS Water Operator License # NY0038957