The susceptibility of our source is "moderate". A copy of the assessment of our Lake Michigan source water in 2003 and relative potential of contamination. The susceptibility rating is tiered scale from "very low" to "high" based on geologic sensitivity, water chemistry and steps you can take to minimize the potential for lead exposure by flushing your tap for thirty seconds to two 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.

Methyl Tertiary-Butyl Ether (MTBE). This gasoline additive has contaminated some drinking water supplies across the country. Our drinking water does not contain MTBE.

Pictured above is Grand Haven’s South Pier and Lighthouse. This pier is one of the most popular landmarks for Grand Haven and on Lake Michigan.

Water is collected through submerged intakes located several feet under the bottom of Lake Michigan and is pre-filtered as it enters the treatment facility. The natural sand above the intakes provide the pre-filtration process.

We are pleased to report that your drinking water is safe and meets the Federal and State of Michigan drinking water health standards. The Northwest Ottawa Water System (NOWS) treatment plant and the City of Ferrysburg routinely monitor for a variety of dissolved mineral and organic substances in your drinking water pursuant to state and federal laws. This report is designed to give you detailed information which will ensure you of the quality of your drinking water. The tables in this brochure show the results of this monitoring from January 1st through December 31st, 2015.

The City of Ferrysburg is pleased to present this year’s Drinking Water Quality Report. This report is designed to inform you about the quality of the water we deliver to you everyday. Our constant goal is to provide you with a safe and dependable supply of drinking water. We are committed to ensuring the quality of your drinking water.

If you have any questions about this report or your drinking water, please contact the Water Facilities Manager Joe VanderStel at 847-3487 or jvanderstel@grandhavcn.org.

Moreover, to provide you with an opportunity for public participation in decisions, some of which might affect drinking water quality. The public is invited to attend the quarterly NOWS Administrative Committee meetings held at the Grand Haven City Hall Council Chambers. You may call the City of Grand Haven for an up-to-date meeting schedule.

All drinking water, including bottled water, may be reasonably expected to contain at least a small amount of some contaminants. It’s important to remember that the presence of these substances 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 EPA’s Safe Drinking Water Hotline at: 1-800-426-4791.

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 cryptosporidium and other microbial contaminants are also available from the Safe Drinking Water Hotline.

The sources of drinking water (both tap and bottled water) include rivers, streams, lakes, 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.
The Northwest Ottawa Water System did not meet the treatment requirements. Our water filtration plant violated a regulatory operational process. As our customers you have a right to know what happened, what you should do and what we did to correct this situation. We are required by regulation to add a compound (coagulant) to our pre-filtered Lake Michigan source water to aid in the removal of impurities through filtration while the plant is in operation. On December 31, 2015 and January 1, 2016 that compound (coagulant) was not added due to a mechanical failure. Since this mixture was missing, these impurities could potentially pass through the filtration process carrying disease-causing organisms.

**DEFINITIONS**

- **Unregulated contaminants** are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants.

**Important Information about Your Drinking Water**

The Northwest Ottawa Water System did not meet the treatment requirements. Our water filtration plant violated a regulatory operational process. As our customers you have a right to know what happened, what you should do and what we did to correct this situation. We are required by regulation to add a compound (coagulant) to our pre-filtered Lake Michigan source water to aid in the removal of impurities through filtration while the plant is in operation. On December 31, 2015 and January 1, 2016 that compound (coagulant) was not added due to a mechanical failure. Since this mixture was missing, these impurities could potentially pass through the filtration process carrying disease-causing organisms.

What should you do? There is nothing you need to do at this time. The problem was corrected and repaired on January 2, 2016. The water continued to be monitored throughout the event, and none of the routine sampling indicated anything out of the ordinary. We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water. Your water is and remains safe.

What happened? What was done? A pump that supplies this compound (coagulant) to our source water was unable to deliver the mixture due to a blockage in a supply line. Plant staff repaired the line and returned the process back to normal, adding the proper substance that produces coagulation. Staff monitored the application process before and after the repairs and confirmed that the Northwest Ottawa Water System continues to receive safe and reliable drinking water. For more information, please contact: Mr. Joseph VanderStel Water Facilities Manager (616) 847-3488 or Mr. Bill Hunter Public Works Director (616) 847-3493

**Unregulated Contaminants Monitoring Rule (UCMR3)**

As your supplier we found it necessary to inform our customers that the required “unregulated contaminants monitoring” round 3 results for 2014 (Assessment Monitoring) are available. This monitoring series concludes in July 2015. The intent of this rule is to provide baseline occurrence data that the EPA can combine with toxicological research to make decisions about potential future drinking water regulations. For more information concerning these “unregulated contaminants” please feel free to contact our water plant staff at 847-3487.

***DO YOU KNOW?***

- Only 3% of the tap water we use on a typical day is used for drinking.
- Households consume at least 50% of their water by lawn sprinkling.
- Toilets use the most water with an average of 27 gallons per person per day.

Use water...and use it wisely!

***DEFINITIONS***

- **Maximum Contaminant Level (MCL)** - The “Maximum allowed” (MCL) is the highest level of contaminant that is allowed in drinking water. MCL’s are set close to the MCLG’s as feasible using the best available treatment technology.
- **Action Level (AL)** - The concentration of a contaminant, if exceeded, triggers treatment or other requirements, which a water system must follow.
- **Maximum Contaminant Level Goal (MCLG)** - The “Goal” (MCLG) is the level of a contaminant in drinking water below, which there is no known or expected risk to health. MCLG’s allow for a margin of safety.
- **NTU** - Nephelometric Turbidity Unit. Turbidity level shall not exceed 0.3 NTU in 95% of the samples every month. This is the measurement of suspended material that is found in water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
- **pCi/L** - pico curies per liter (a measure of radioactivity).
- **Unregulated Monitoring** - Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants.

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**Listed below are contaminants/substances detected in the Northwest Ottawa Water System.**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Violation</th>
<th>Highest Level Detected</th>
<th>Unit Measurement</th>
<th>Range of Detection</th>
<th>MCL</th>
<th>MCLG</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>No</td>
<td>0</td>
<td>ppb</td>
<td>0 to 0</td>
<td>AL=15</td>
<td>0</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>Copper</td>
<td>No</td>
<td>23.0</td>
<td>ppb</td>
<td>0 to 28.0</td>
<td>AL=1300</td>
<td>1300</td>
<td>Corrosion of household plumbing systems</td>
</tr>
</tbody>
</table>

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**REGULATED MONITORING AT THE CUSTOMER TAP**

- **Total Coliform/F. coli Bacteria**
  - Violation: No
  - Highest Level Detected: 0%
  - Unit Measurement: System Wide
  - Range of Detection: Presence or Absence
  - MCL: Never detected
  - MCLG: 5% of monthly samples
  - Likely Source of Contamination: Naturally present

- **Turbidity**
  - Violation: No
  - Highest Level Detected: 0.13 NTU
  - Unit Measurement: March 19th
  - Range of Detection: 0.03 to 0.13 NTU
  - MCL: Yearly Avg. = 0.04
  - MCLG: 1.0 (TT)
  - Likely Source of Contamination: Soil runoff (Turbidity is a measure of the cloudiness of the water.)

- **Fluoride**
  - Violation: No
  - Highest Level Detected: 1.00 ppm
  - Unit Measurement: 1 sample/ year
  - Range of Detection: 4
  - MCL: 4
  - MCLG: Water additive that promotes strong teeth

- **Nitrate**
  - Violation: No
  - Highest Level Detected: Not Detected
  - Unit Measurement: 1 sample/ year
  - Range of Detection: 10
  - MCL: 10
  - MCLG: Runoff from fertilizer and septic tanks

- **Gross Alpha (2015)**
  - Violation: No
  - Highest Level Detected: 1.93 pCi/L
  - Unit Measurement: (0.64±1.29) 1 sample/9 years
  - Range of Detection: 15
  - MCL: 50
  - MCLG: Erosion of natural deposits

- **Arsenic (2010)**
  - Violation: No
  - Highest Level Detected: Not Detected
  - Unit Measurement: 1 sample/ 9 years
  - Range of Detection: 10
  - MCL: 10
  - MCLG: Past analysis records for Gross Alpha and Radium 226 & 228 are well below the MCL; therefore these will only need to be tested every 9 years

- **Barium (2010)**
  - Violation: No
  - Highest Level Detected: 0.02 ppm
  - Unit Measurement: 1 sample/ 9 years
  - Range of Detection: 2
  - MCL: 2
  - MCLG: 2

- **Selenium (2010)**
  - Violation: No
  - Highest Level Detected: 1.0 ppm
  - Unit Measurement: 1 sample/ 9 years
  - Range of Detection: 50
  - MCL: 50
  - MCLG: 50

- **Radium 226 & 228 (2015)**
  - Violation: No
  - Highest Level Detected: 2.02 pCi/L
  - Unit Measurement: (1.11±0.91) 1 sample/9 years
  - Range of Detection: 5
  - MCL: 5
  - MCLG: 5

- **Sodium**
  - Violation: No
  - Highest Level Detected: 11 ppm
  - Unit Measurement: 1 sample/ year
  - Range of Detection: Mineral and nutrient erosion

- **Chlorine Residuals**
  - Violation: No
  - Highest Level Detected: 1.90 ppm
  - Unit Measurement: NOT/Water System Wide Avg.
  - Range of Detection: 0.12 to 1.90
  - MCL: MRDLG= 4.0
  - MCLG: Water additive used to control microbes *Based on a Running Annual Average (RAA)

- **Chloride**
  - Violation: No
  - Highest Level Detected: 14.0 ppm
  - Unit Measurement: 1 sample/year
  - Range of Detection: Mineral and nutrient erosion

<table>
<thead>
<tr>
<th>Substance</th>
<th>Violation</th>
<th>Highest Level Detected</th>
<th>Unit Measurement</th>
<th>Range of Detection</th>
<th>MCL</th>
<th>MCLG</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethenes (TTHM)</td>
<td>No</td>
<td>LRAA= 23.8</td>
<td>ppb</td>
<td>10.6 to 26.1</td>
<td>80</td>
<td>0</td>
<td>By-product of drinking water chlorination</td>
</tr>
<tr>
<td>Haloacetic Acids (HAAs)</td>
<td>No</td>
<td>LRAA= 22.1</td>
<td>ppb</td>
<td>9.8 to 18.6</td>
<td>60</td>
<td>0</td>
<td>Cumpliance is based on a Locational Running Annual Average (LRAA)</td>
</tr>
</tbody>
</table>

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**REGULATED AND UNREGULATED MONITORING AT THE TREATMENT PLANT AND DISTRIBUTION SYSTEM**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Highest Level Detected</th>
<th>Unit</th>
<th>Range of Detection</th>
<th>MCL</th>
<th>MCLG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium (2010)</td>
<td>0.2 ppm</td>
<td>1 sample/ year</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selenium (2010)</td>
<td>0.02 ppm</td>
<td>1 sample/ 9 years</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radium 226 &amp; 228 (2015)</td>
<td>2.02 pCi/L</td>
<td>(1.11±0.91) 1 sample/9 years</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium</td>
<td>11 ppm</td>
<td>1 sample/ year</td>
<td>Mineral and nutrient erosion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Listed below are contaminants/substances detected in the Northwest Ottawa Water System.**

**Not listed are the hundreds of other contaminants for which we tested and that were not detected**