Health Effects of 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 Northwest Ottawa Water Treatment Plant 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 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.

Per- and Polyfluoroalkyl Substances (PFAS): For PFAS information go to: http://michigan.gov/pfassresponse

FACT:

Water is collected through submerged intakes located some 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-filter barrier which complements the plant’s direct 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 GHT 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 your drinking water. The tables in this brochure show the results of this monitoring from your drinking water.

If you have any questions about this report or your drinking water, please contact the GHT’s Public Services Director Mark VerBerkmoes at (616) 604-6318 or mverberkmoes@ght.org.

Grand Haven Charter Township (GHT) is pleased to present this year’s Drinking Water Quality Report. This report will 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.
DID 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.
- Water laws early in the morning when the sun rays aren’t working to evaporate water.
- Toilets use the most water with an average of 27 gallons per person per day.
- Water efficient toilets, bathroom faucets and accessories can save the average home more than 1,100 gallons per year.
- An 8-oz glass of water can be refilled approximately 15,000 times for the same price as a six-pack of soda.
- Community water supplies are tested every day - far more frequent testing than for bottled water.
- The original reason for constructing many community water systems in North America wasn’t to deliver safe drinking water—it was to fight fires!

WHAT IF TAP WATER CAME WITH A LABEL?

Tap water doesn’t come with a nutrition label, like you’d find on the side of a bottle of juice or iced tea. If it did, the label would include the following:

Water: Hydrogen, oxygen

Water Source: Lake Michigan

Ingredients: Total organic carbon, chloride, sulfate, total dissolved solids, aluminum, sodium, alkalinity, iron, magnesium, manganese, hardness, calcium, potassium

Preservative: Chlorine

Additives: Fluoride

Tested for Safety: The water utility's statement of safety is found in its annual Consumer Confidence Report. To be certified as safe, the water may be tested for lead, copper, trihalomethanes, haloacetic acids, total organic carbon, antimony, arsenic, barium, beryllium, bromide, cadmium, chromium, cyanide, mercury, nickel, selenium, silver, strontium, thallium, 28 synthetic organic chemicals (pesticides, herbicides, polychlorinated biphenyls, etc.), 22 volatile organic chemicals (oil and gasoline products, solvents, etc.), chlorate, nitrate, nitrite, total coliform bacteria and E. coli, radiologicals and PFAS.

Compliance is based on a Locational Running Average (LRAA) where these contaminants occur and whether it needs to regulate those contaminants.

Legends:
- Natural: never detected
- Likely Source of Contamination
- Regulatory Level: Action Level (AL)
- Maximum Contaminant Level Goal (MCLG)
- Maximum Contaminant Level (MCL)
- Maximum Residual Disinfectant Level Goal (MRDLG)
- Mean (M)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Violation Yes/No</th>
<th>Action Level (AL)</th>
<th>MCLG</th>
<th>90th Percentile</th>
<th>Year Sampled</th>
<th>Number of Samples Above AL</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (ppb)</td>
<td>No</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>2016</td>
<td>0</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>Copper (ppb)</td>
<td>No</td>
<td>1300</td>
<td>1300</td>
<td>73</td>
<td>2016</td>
<td>0</td>
<td>Copper and Lead testing is performed</td>
</tr>
</tbody>
</table>

**Regulated and Unregulated Monitoring at the Treatment Plant and Distribution System**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Violation Yes/No</th>
<th>Highest Level Detected</th>
<th>Unit</th>
<th>Range of</th>
<th>MCL</th>
<th>MCLG</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform/E. coli Bacteria</td>
<td>No</td>
<td>0%</td>
<td>Presence or Absence</td>
<td>Never detected</td>
<td>5% of monthly samples</td>
<td>Naturally present</td>
<td></td>
</tr>
<tr>
<td>Turbidity</td>
<td>No</td>
<td>0.10</td>
<td>NTU</td>
<td>0.01 to 0.10 Yearly Avg. + 0.03</td>
<td>1.0 (TT)</td>
<td>Soil runoff (Turbidity is a measure of the cloudiness of the water.)</td>
<td></td>
</tr>
<tr>
<td>Chlorine Residuals (system wide)</td>
<td>No</td>
<td>2.02</td>
<td>ppm</td>
<td>0.10 to 2.02</td>
<td>MRDL= 4.0</td>
<td>MRDLG= 4.0</td>
<td>Water additive used to control microbes</td>
</tr>
<tr>
<td>Fluoride (point-of-entry)</td>
<td>No</td>
<td>0.95</td>
<td>ppm</td>
<td>1 sample/ year</td>
<td>4</td>
<td>4</td>
<td>Water additive that promotes strong teeth</td>
</tr>
<tr>
<td>Chloride</td>
<td>No</td>
<td>15</td>
<td>ppm</td>
<td>1 sample/ year</td>
<td>4</td>
<td>4</td>
<td>Runoff from fertilizer and septic tanks</td>
</tr>
<tr>
<td>Sodium</td>
<td>No</td>
<td>9</td>
<td>ppm</td>
<td>1 sample/ year</td>
<td>4</td>
<td>4</td>
<td>Mineral and nutrient erosion</td>
</tr>
<tr>
<td>Sulfate</td>
<td>No</td>
<td>12</td>
<td>ppm</td>
<td>1 sample/ year</td>
<td>4</td>
<td>4</td>
<td>Mineral and nutrient erosion</td>
</tr>
<tr>
<td>Gross Alpha (2015)</td>
<td>No</td>
<td>2</td>
<td>pCi/L</td>
<td>(0.64±1.29) 1 sample/ 9 years</td>
<td>15</td>
<td>0</td>
<td>Past analysis records for Gross Alpha and Radium 226 &amp; 228 are well below the MCL; therefore these will only need to be tested every 9 years (scheduled for 2024)</td>
</tr>
<tr>
<td>Barium (2010)</td>
<td>No</td>
<td>20</td>
<td>pCi/L</td>
<td>(1.11 ± 0.91) 1 sample/ 9 years</td>
<td>5</td>
<td>0</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Selenium (2010)</td>
<td>No</td>
<td>1</td>
<td>pCi/L</td>
<td>1 sample/ 9 years</td>
<td>50</td>
<td>50</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Arsenic (2010)</td>
<td>No</td>
<td>Not Detected</td>
<td>pCi/L</td>
<td>1 sample/ 9 years</td>
<td>10</td>
<td>0</td>
<td>Discharge from metal factories; discharge from plastic and fertilizer factories</td>
</tr>
<tr>
<td>Nitrate</td>
<td>No</td>
<td>Not Detected</td>
<td>pCi/L</td>
<td>1 sample/ 9 years</td>
<td>10</td>
<td>10</td>
<td>Discharge from metal factories; discharge from plastic and fertilizer factories</td>
</tr>
<tr>
<td>Available Cyanide</td>
<td>No</td>
<td>Not Detected</td>
<td>pCi/L</td>
<td>1 sample/ 9 years</td>
<td>200</td>
<td>200</td>
<td>Discharge from metal factories; discharge from plastic and fertilizer factories</td>
</tr>
</tbody>
</table>

**Regulated Monitoring in the Distribution System**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Violation Yes/No</th>
<th>Maximum Residual Disinfectant Level Goal (MRDLG)</th>
<th>Mean (M)</th>
<th>Maximum Residual Disinfectant Level (MRDL)</th>
<th>Max Contaminant Level Goal (MCLG)</th>
<th>Max Contaminant Level (MCL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Trihalomethanes (THM)</td>
<td>No</td>
<td>LRAA= 54</td>
<td>ppb</td>
<td>36 to 68</td>
<td>80</td>
<td>0</td>
<td>By-product of drinking water chlorination Compliance is based on a Locational Running Annual Average (LRAA)</td>
</tr>
<tr>
<td>Haloacetic Acids (HAA5)</td>
<td>No</td>
<td>LRAA= 32</td>
<td>ppb</td>
<td>12 to 50</td>
<td>60</td>
<td>0</td>
<td>By-product of drinking water chlorination Compliance is based on a Locational Running Annual Average (LRAA)</td>
</tr>
</tbody>
</table>