The Village of Spring Lake

The Northwest Ottawa Water System—City of Grand Haven, Grand Haven Charter Township, Village of Spring Lake, City of Ferrysburg, Spring Lake Township, Crocker Township & Robinson Township

2022 Annual Drinking Water Quality Report

Northwest Ottawa Water System

The Northwest Ottawa Water System (NOWS) 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 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.

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 provides a 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) treats water for the Charter Township, Village of Spring Lake, City of Ferrysburg, Spring Lake Township, Crocker Township, and Robinson Township.

This report is designed to give you detailed information about your drinking water. The tables in this brochure show the results of the monitoring completed from January 1st through December 31st, 2021.

If you have any questions about this report or your drinking water, please contact the Water Facilities Manager Eric Law at 847-3487 or email clawn@grandhaven.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 reasonably be expected to contain at least a small amount of some contaminants. It is 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

To download or view this on-line go to:

www.grandhaven.org/departments/water-filtration/

Some in our community 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 may be at risk from infections. These people should consult their personal health care provider.

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

PFAS: PFAS are widely used, long lasting chemicals, components of which break down very slowly over time. Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. PFAS are found in water, air, fish, and soil at locations across the nation and the globe. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. There are thousands of PFAS chemicals, and they are found in many different consumer, commercial, and industrial products. This makes it challenging to study and assess the potential human health and environmental risks.

For more PFAS information go to: http://michigan.gov/pfasresponse

Quality Report

The results of the monitoring completed from January 1st through December 31st, 2021.

The Northwest Ottawa Water System (NOWS) treat ment plant and the City of Grand Haven routinely monitor the results of the monitoring completed from January 1st through December 31st, 2021.

The tables in this brochure show the results of the monitoring completed from January 1st through December 31st, 2021.

This report is designed to give you detailed information about your drinking water. The tables in this brochure show the results of the monitoring completed from January 1st through December 31st, 2021.

If you have any questions about this report or your drinking water, please contact the Water Facilities Manager Eric Law at 847-3487 or email clawn@grandhaven.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 Commit tee 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 reasonably be expected to contain at least a small amount of some contaminants. It is 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

To download or view this on-line go to:

www.grandhaven.org/departments/water-filtration/

Some in our community 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 may be at risk from infections. These people should consult their personal health care provider.

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

PFAS: PFAS are widely used, long lasting chemicals, components of which break down very slowly over time. Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. PFAS are found in water, air, fish, and soil at locations across the nation and the globe. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. There are thousands of PFAS chemicals, and they are found in many different consumer, commercial, and industrial products. This makes it challenging to study and assess the potential human health and environmental risks.

For more PFAS information go to: http://michigan.gov/pfasresponse

Residential Average Water Use

https://wateruseitwisely.com/100

In a world where an estimated 3 million people die every year from preventable waterborne disease, our water systems allow us to drink from virtually any public tap with a high assurance of safety. Each community water supply meets rigorous federal and state health-protective standards.

FACT:

The Northwest Ottawa Water System Provided More Than 2.40 Billion Gallons of Drinking Water in 2022
### Lead and Copper

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 have a lead service line it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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 1-800-426-4791 or at [http://water.epa.gov/drink/info/lead](http://water.epa.gov/drink/info/lead).

### Health Effects of Lead & Copper

**Elevated lead result** above the Action Level (AL) - Infants and children who drink water containing lead could experience delays in their growth and development. Young children who drink water containing copper in excess of the action level over a period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.

**Elevated copper result** above the Action Level (AL) - Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.

### Definitions

- ppm - Parts Per Million
- ppb - Parts Per Billion
- ppt - Parts Per Trillion
- MCL - Maximum Contaminant Level
- AL - Action Level
- MCLG - Maximum Contaminant Level Goal
- LRAA - Locational Running Annual Average
- RAAs - Running Annual Average
- RAA - Running Annual Average
- MTD - Maximum Total Disinfectant Goal
- MDL - Maximum Detection Limit
- MRLD - Maximum Residual Disinfection Level Goal
- TOC - Total Organic Carbon
- FTIR - Fourier Transform Infrared Spectroscopy
- GAC - Granular Activated Carbon

### Regulated Monitoring in the Distribution System

<table>
<thead>
<tr>
<th>Regulated Contaminant</th>
<th>MCL</th>
<th>MCLG</th>
<th>Highest Level Detected</th>
<th>Range</th>
<th>Year Sampled</th>
<th>Violation Yes/No</th>
<th>Typical Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity</td>
<td>1.0 (TT)</td>
<td>N/A</td>
<td>0.12</td>
<td>0.02 to 0.12</td>
<td>2022</td>
<td>No</td>
<td>Soil runoff (Turbidity is a measure of the cloudiness of the water)</td>
</tr>
<tr>
<td>E.coli Bacteria</td>
<td>N/A</td>
<td>N/A</td>
<td>0%</td>
<td>N/A</td>
<td>Not Detected</td>
<td>2022</td>
<td>No</td>
</tr>
<tr>
<td>Total Coliform</td>
<td>TT</td>
<td>0%</td>
<td>System Wide</td>
<td>N/A</td>
<td>Not Detected</td>
<td>2022</td>
<td>No</td>
</tr>
<tr>
<td>Brominated Benzenes</td>
<td>80</td>
<td>N/A</td>
<td>3.9</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>A byproduct of drinking water disinfection</td>
</tr>
<tr>
<td>Bromiforme</td>
<td>80</td>
<td>N/A</td>
<td>0.5</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>A byproduct of drinking water disinfection</td>
</tr>
<tr>
<td>Chlorinated Benzenes</td>
<td>80</td>
<td>N/A</td>
<td>3.1</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>A byproduct of drinking water disinfection</td>
</tr>
<tr>
<td>Chloroform</td>
<td>80</td>
<td>N/A</td>
<td>3.5</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>A byproduct of drinking water disinfection</td>
</tr>
<tr>
<td>Chlorine (ppm)</td>
<td>4</td>
<td>4</td>
<td>0.90 (RAA)</td>
<td>0.07 to 1.38</td>
<td>2022</td>
<td>No</td>
<td>Water additive used to control microbes</td>
</tr>
<tr>
<td>Chloride (ppm)</td>
<td>N/A</td>
<td>N/A</td>
<td>17</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>Runoff from road de-icing, fertilizers and Leaching from septic tanks</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>4</td>
<td>4</td>
<td>0.60</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.</td>
</tr>
<tr>
<td>Sodium (ppm)</td>
<td>N/A</td>
<td>N/A</td>
<td>11</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Perfluorooctanoic Acid</td>
<td>8</td>
<td>N/A</td>
<td>0.92</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>Chemicals used to make fluoropolymer-coatings and products that resist heat, oil, stains, grease, and water</td>
</tr>
<tr>
<td>Perfluorooctane Sulfonic Acid</td>
<td>16</td>
<td>N/A</td>
<td>0.03</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>Chemicals used to make fluoropolymer-coatings and products that resist heat, oil, stains, grease, and water</td>
</tr>
<tr>
<td>Perfluorohexanoic Acid</td>
<td>400,000</td>
<td>N/A</td>
<td>0.17</td>
<td>0</td>
<td>2022</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Boron (ppb)</td>
<td>N/A</td>
<td>N/A</td>
<td>20.5</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Barium (ppb)</td>
<td>200</td>
<td>20</td>
<td>20</td>
<td>N/A</td>
<td>2022</td>
<td>No</td>
<td>Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits</td>
</tr>
<tr>
<td>Alpha emitters (pCi/L)</td>
<td>15</td>
<td>2</td>
<td>0.64 ± 1.29</td>
<td>N/A</td>
<td>2015</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Combined radium (pCi/L)</td>
<td>5</td>
<td>2</td>
<td>1.11 ± 0.01</td>
<td>N/A</td>
<td>2015</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
</tbody>
</table>

### Regulated Monitoring at the Customer Tap - Completed by Consecutive System

<table>
<thead>
<tr>
<th>Regulated Contaminant</th>
<th>MCL</th>
<th>MCLG</th>
<th>Percentile</th>
<th>Range</th>
<th>Number of Samples above AL</th>
<th>Year Sampled</th>
<th>Violation Yes/No</th>
<th>Typical Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (ppb)</td>
<td>15</td>
<td>0</td>
<td>1.3</td>
<td>1.3</td>
<td>2022</td>
<td>No</td>
<td>Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits</td>
<td></td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>2022</td>
<td>No</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Information

**Too be completed by consecutive water systems associated with NOWS**

- Lead Service Lines: 250
- Service Lines of Unknown Material: 700
- Total Number of System of Service Lines: 1275