Contaminants, that may be present in source water 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 stormwater runoff, industrial or domestic discharges, oil and gas production, mining or farming.

- **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, 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 provide the same protection for public health.

**Source Water Assessment:** The State performed an assessment of our Lake Michigan source water in 2003 and completed it in 2004 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from “very-low” to “high” based primarily on geologic sensitivity, water chemistry and contaminant sources.

The susceptibility of our source is “moderate”. A copy of the report can be obtained by contacting the Water Facilities Manager at 847-3487.

**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.

**FACT:**

The Northwest Ottawa Water System Provided Over 2.1 Billion Gallons of Drinking Water in 2016

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-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 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 the water you 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.

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.

The Northwest Ottawa Water System—City of Grand Haven, Grand Haven Charter Township, Village of Spring Lake, City of Ferrysburg, Spring Lake Township and Crockery Township

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@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 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.

Continued on back page
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.
- Toilets use the most water with an average of 27 gallons per person per day.

Tips on Outdoor Water Conservation

1. Water your lawn only when it needs it. A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn’t need water. If it stays flat, start sprinkling, but don’t water too much. As a general rule, you should only water your lawn five to seven days during the summer. The experts say that most lawns require about one inch of water per week from rain or sprinkling.
2. Deep soak your lawn. When you do water, do it long enough for the moisture to soak down to the roots where it will do the most good. A light sprinkling can evaporate quickly and tends to encourage shallow root systems. Applying at least 0.1 to 0.2 inches for each irrigation event, instead of over water, can reduce turf disease and insects, depending on soil and temperature conditions.
3. Water during the cool part of the day. Early morning, generally, or prior to the highest temperature of the day is better than dusk since it helps prevent growth of fungus.
4. Be rain smart. Install a shut-off device that automatically detects rain or moisture. These devices are inexpensive and enable you to take advantage of the water without having to pay for it.

Regulated monitoring at the customer tap

| Substance                  | Violation | Highest Level | Unit | Range of | MCL | MCLG | Likely Source of Contamination
|----------------------------|-----------|---------------|------|----------|-----|------|-------------------------------
| Lead (from 2016)          | No        | 0 ppm         |      | 0 to 15  | 0   | 0    | Corrosion of household plumbing systems
| Copper (from 2016)        | No        | 27 ppm        | 0 to 27 | 1300     | 1300|      | Copper and Lead testing is performed once every three years and the highest level detected = 96th percentile. The next scheduled testing period is 2020.

Regulated and unregulated monitoring at the treatment plant and distribution system

| Substance                  | Violation | Highest Level | Unit | Range of | MCL | MCLG | Likely Source of Contamination
|----------------------------|-----------|---------------|------|----------|-----|------|--------------------------------
| Turbidity shall not exceed | No        | 0.08 NTU      |      | 0.03 to 0.08 Yearly Avg. = 0.04 | 1.0 (TT) | Soil runoff (Turbidity is a measure of the cloudiness of the water.)
| Chlorine Residuals         | 1.9 *No* | 0.1 to 1.9 ppm | 1 sample/9 years | MRDL= 4.0 | MRDLG = 4.0 | Water additive used to control microbes *Based on a Running Annual Average (RAA)
| Fluoride (point-of-entry)  | No        | 0.8 ppm       | 1 sample/year | 4 | 4 | Water additive that promotes strong teeth
| Chloride                  | No        | 15 ppm        | 1 sample/year | Runoff from fertilizer and septic tanks
| Sodium                    | No        | 10 ppm        | 1 sample/year | Mineral and nutrient erosion
| Gross Alpha (2015)         | No        | 2 pCi/L       | (0.64±1.29) sample/9 years | 15 | 0 | Erosion of natural deposits
| Radium 226 & 228 (2015)    | No        | 2 pCi/L       | (1.11 ± 0.91) sample/9 years | 5 | 0 | 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)             | No        | 20 ppm        | 1 sample/9 years | 200 | 200 | Emission from radium isotope decay process supplying drinking water chlorination
| Selenium (2010)           | No        | 1 ppm         | 1 sample/9 years | 50 | 50 | Discharge from steel metal factories; discharge from plastic and fertilizer factories
| Arsenic (2010)            | No        | Not Detected  | ppm | 1 sample/9 years | 10 | 0 | Discharge from steel metal factories; discharge from plastic and fertilizer factories
| Nitrate                   | No        | Not Detected  | ppm | 1 sample/9 years | 10 | 0 | Discharge from steel metal factories; discharge from plastic and fertilizer factories
| Available Cyanide         | No        | Not Detected  | ppm | 1 sample/9 years | 200 | 200 | Discharge from steel metal factories; discharge from plastic and fertilizer factories

Regulated monitoring in the distribution system

| Substance                  | Violation | Highest Level | Unit | Range of | MCL | MCLG | Likely Source of Contamination
|----------------------------|-----------|---------------|------|----------|-----|------|--------------------------------
| Total Trihalomethanes (TTHM) | No        | LRAA= 28 ppm | 17 to 35 | 80 | 0 | By-product of drinking water chlorination
| Haloacetic Acids (HAA5)    | No        | LRAA= 21 ppm | 9 to 29 | 60 | 0 | Compliance is based on a Locational Running Annual Average (LRAA)