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 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.

DO YOU KNOW WHAT A PENNY WILL BUY?
One penny will deliver about seven gallons of drinking water to your home and family every day of the year.

FACt:
Northwest Ottawa Water System Used Over 2.0 Billion Gallons of Water in 2010

Grand Haven Charter Township 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@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 bi-monthly NOWS Administrative Committee meetings held at the Water Plant Conference Room. 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 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.

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
**DEFINITIONS**

- **Parts per million (ppm)**: A measurement of concentration. One part per million corresponds to one part in two million.
- **Parts per billion (ppb)**: A measurement of concentration. One part per billion corresponds to one part in two billion.
- **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, which 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.

**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.
- Gross Alpha emitters, Radium 226 & 228: Radionuclide contaminants that give off ionizing radiation. The state allows NOW to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All data is representative of the water quality, but some are more than one year old.
- Maximum Residual Disinfectant Level - Means the level of a disinfectant allowed in drinking water, (MDRL). There is convincing evidence that an addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Level Goal - Means the level of drinking water disinfectant below which there is no known or expected risk to health (MDRLG). MRDLGs do not reflect the benefits of the use of disinfectant to control microbial contaminants.

**REQUIRED MONITORING AT THE CUSTOMER TAP**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Violation Yes/No</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 (from 2010)</td>
<td>No</td>
<td>0</td>
<td>ppm</td>
<td>0 — 4.0</td>
<td>AL=15</td>
<td>0</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>Copper (from 2010)</td>
<td>No</td>
<td>30.0</td>
<td>ppm</td>
<td>0 — 44.0</td>
<td>AL=1300</td>
<td>1300</td>
<td>Corrosion of household plumbing systems</td>
</tr>
</tbody>
</table>

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

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Monitoring Requirements Not Met for Northwest Ottawa Water Treatment Plant**

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During May 2010 we did not complete all required continuous online turbidity monitoring and therefore cannot be sure of the quality of our drinking water during that time.

**What should I do?**
- There is nothing you need to do at this time. **This was not an emergency.**

The table below lists the contaminants we did not properly test for; how often we are supposed to sample and how often we actually sampled.

**WHAT HAPPENED?**

On May 22 to May 24, 2010 the water plants control system malfunctioned, during new plant construction, causing a loss of data and a failure to monitor continuous individual filter turbidity (which collects turbidity samples every 15 minutes). When turbidimeters and data collecting systems fail we are required to collect grab samples at least every 4 hours while the filter is in service. Plant staff was unaware that the turbidimeter data was not being saved. Approximately 50 hours of turbidimeter data was lost. Plant staff failed to collect grab samples from the individual filters every 4 hours during this time period. However the combined filter effluent and tap water leaving the plant was monitored every 4 hours for the entire duration and at no time during the above period did the turbidity exceed drinking water standards. For more information, please contact Mr. Joseph VanderStel, Water Facilities Manager, 519 Washington, Grand Haven, MI, 49417 at 616-847-3488, or the Michigan Department of Natural Resources & Environment at 616-356-0271.

**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.

**Use water...and use it wisely!**