Alpena’s water use during the year 2007:
- 800.45 million gallons, yearly total.
- 2.19 million gallons, average daily.
- 3.62 million gallons, maximum day.

### TABLE ABBREVIATIONS
- MCL - Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.
- MCLG - Maximum Contaminant Level Goal: 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.
- ppm-Parts per million: One part per million (or milligrams per liter) is equivalent to one penny in a $10,000.
- ppb-Parts per billion: One part per billion (or micrograms per liter) is equivalent to one penny in $10,000,000.

### WHAT’S IN MY WATER?
Alpena’s water use during the year 2007:
- All state and federal drinking water requirements. Each year we analyze over 50,000 water samples for bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes, and synthetic inorganic contaminants. For your information, we have compiled a list in the table below showing what substances were detected in our drinking water.

#### Substances Noted to be in Drinking Water

**Table:** Substances Expected to be in Drinking Water

<table>
<thead>
<tr>
<th>SUBSTANCE (UNITS)</th>
<th>SAMPLED</th>
<th>AMOUNT DETECTED</th>
<th>MCLG</th>
<th>DETECTED LOW-HIGH</th>
<th>VIOLATION</th>
<th>TYPICAL SOURCE</th>
</tr>
</thead>
</table>
| Sodium (ppm)     | 2007    | 6/21/07         | NA   | 8               | NA        | Natural deposits.

**Table:** DISTRIBUTION SYSTEM SUBSTANCES

<table>
<thead>
<tr>
<th>SUBSTANCE (UNITS)</th>
<th>SAMPLED</th>
<th>MCL</th>
<th>MCLG</th>
<th>DETECTED</th>
<th>LOW-HIGH</th>
<th>VIOLATION</th>
<th>TYPICAL SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (ppb)</td>
<td>2005</td>
<td>July-August</td>
<td>15</td>
<td>0</td>
<td>2.0</td>
<td>No</td>
<td>Corrosion of household plumbing.</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>2005</td>
<td>July-August</td>
<td>1.3</td>
<td>0.52</td>
<td>0</td>
<td>No</td>
<td>Corrosion of household plumbing.</td>
</tr>
</tbody>
</table>

**Table:** Organic Chemical Contaminants

- Some people may be more vulnerable to contaminants in drinking water than the general population, such as infants, some elderly, and people with weakened immune systems. Others may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

**Table:** Radioactive Contaminants

- Some people may be more vulnerable to contaminants in drinking water than the general population, such as infants, some elderly, and people with weakened immune systems. Others may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

#### DISINFECTION BYPRODUCTS

- Disinfection byproducts are a concern because they may cause additional health problems.

#### AL - Action Level

- The concentration of a contaminant which, if exceeded, triggers treatment or follow.

#### DISTRIBUTION SYSTEM SUBSTANCES

- Lead and copper samples were collected from taps at 30 high-risk homes. These levels found are not found in the City’s water and demonstrate levels found in the plumbing of the household.

#### SUBSTANCES IN MY WATER

**Table:** SUBSTANCES IN MY WATER

- The table below shows what substances were detected in our drinking water. All of the substances listed below are under the Maximum Contaminant Level (MCL) set by U.S. EPA.

**Table:** UNREGULATED SUBSTANCES

- Substances 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.

#### DRINKING WATER IMPROVEMENT PROJECTS

- In order to provide exceptional service to our customers, we continuously strive to maintain our existing facilities. Equipment upgrade needs are routinely evaluated and budgeted as required. Examples of these projects are the pictures that follow:

Windows were replaced in one section of the Water Plant main building. Age and building settling had cracked most of the windows and broke the moisture seal on others. This project was completed during the fall of 2007.

The flow into the Water Plant is controlled by a 20” butterfly valve. This valve, installed in 1965, had reached its useful life. During the winter ETOS crew replaced and programmed the new valve. We should see many years of use from this main control valve.

### INFORMATION ON THE INTERNET

Water quality reports going back to 1998 can be found on the City of Alpena web site (www.alpena.mi.us). In addition, the EPA Office of Water (www.epa.gov/waterhome) has a web site providing a substantial amount of information on many issues relating to water resources, water conservation and public health.

I hope you enjoyed reading this latest water quality report, enjoy the summer.

J. Plane
Where does our water come from?

Our fresh water source is surface water from Thunder Bay (Lake Huron). This source has been utilized in Alpena since 1905 and sample data shows that it is of high quality. Over the last 25 years, state and federal environmental regulations have progressively become more stringent resulting in significant improvements in Great Lakes water quality. Efforts to protect our fresh water source include a “Source Water Assessment” conducted by the Michigan Department of Environmental Quality. The assessment identifies sources of pollution that may have a negative impact on the quality of our source water. Copies of the assessment are available upon request. Contact your water production plant for information on how to receive your copy (356-0757). A Source Water Protection Plan is presently being developed and will be phased in over the next fifteen years.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save you money by reducing your water usage, but can also save your money by reducing your water and sewer bills. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Install water-saving devices in faucets, toilets and appliances.
- Replace old fixtures (could reduce water consumption by nearly one-half).
- Wash only full loads of laundry.
- Do not use the toilet for a trash disposal.
- Take shorter showers.
- Soak dishes before washing.
- Water your lawn and garden in the early morning or evening.

HOW IS MY WATER TREATED AND PURIFIED?

The treatment process consists of a series of steps. Raw water is drawn from Thunder Bay (Lake Huron) and pumped to a mixing tank where chlorine, alum and polymer are added. The addition of these chemicals causes small particles to adhere to one another until they are heavy enough to settle in a basin from which sediment is removed. After settling, filter aid is added, if necessary, for turbidity removal (turbidity is a common measure of the clarity of water). Also added at this point are fluoride (which helps prevent tooth decay) and phosphate (which helps prevent corrosion in water system). The water is then filtered through layers of fine carbon and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added again at this point as a final disinfectant. We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste. The water is then pumped through the distribution piping to sanitized reservoirs and water towers, and into your home or business.

Under the Safe Drinking Water Act (SDWA), the United States Environmental Protection Agency (USEPA) sets the national limits for hundreds of substances in water systems must use to remove these substances. Similarly, the United States Food and Drug Administration (USFDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Each utility continually monitors the water produced for these substances and reports directly to their state regulatory agency, which in turn reports to the EPA, if any are detected in the drinking water. EPA uses this data to ensure that consumers are receiving clean water and verify that states are enforcing the laws that regulate drinking water.

Our Water Quality Report conforms to the federal regulation under the SDWA requiring water utilities to provide detailed water quality information to each of their customers annually. We are committed to providing you with this information about your water supply, because customers who are well informed are our best allies in supporting improvements necessary to maintain our ability to provide the highest quality drinking water.

Customers are invited to contact our utility at any time with questions or concerns. Individual and group tours of our Water Treatment Plant can be arranged by calling (989) 356-0757.

Working Hard for You!

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Our water utility customers should consider themselves to be investor-owners of the system. The utility is managed as an enterprise fund and all operation, maintenance, and replacement expenditures are financed entirely by user fees. Consequently, all customer inquiries, requests, or suggestions are welcome and encouraged by the utility. The Alpena Municipal Council is responsible for overseeing the Alpena Water Utility. The City Council meets on the first and third Monday of every month. Utility correspondence may be directed to the following personnel:

Jerry Plume, Earth Tech Plant Manager
phone: 356-0757 email: jerry.plume@earthtech.com
Mike Glosinski, Earth Tech Utility Manager
phone: 356-0757 email: michael.glosinski@earthtech.com
Thad Taylor, City Manager
phone: 356-0757 email: thad@alpena.mi.us
Rich Sullenger, City Engineer
phone: 356-0757 email: richs@alpena.mi.us

QUESTIONS

Call U.S. EPA’s Safe Drinking Water Hotline at 1-800-426-4791