

## Lake Huron Water Treatment Plant 2007 Regulated Detected Contaminants Tables

| Contaminant  | Test Date     | Units | Health Goal MCLG | Allowed Level MCL | Level Detected | Range of Detection | Violation yes/no | Major Sources in Drinking Water   |
|--|---------------|-------|------------------|-------------------|----------------|--------------------|------------------|---|
| <b>Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap</b>                     |               |       |                  |                   |                |                    |                  |   |
| Fluoride   | 8/8/2007      | ppm   | 4                | 4                 | 1.23           | n/a                | No               | Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Nitrate  | 8/8/2007      | ppm   | 10               | 10                | 0.28           | n/a                | No               | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                                 |
| <b>Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System</b> |               |       |                  |                   |                |                    |                  |   |
| Total Trihalomethanes (TTHM)   | Feb-Nov 2007  | ppb   | n/a              | 80                | 17.4           | 9.3-40.3           | No               | By-product of drinking water chlorination   |
| Haloacetic Acids (HAA5)  | Feb- Nov 2007 | ppb   | n/a              | 60                | 11.0           | 2.6-15.2           | No               | By-product of drinking water disinfection   |
| Disinfectant (Total Chlorine residual)   | Jan-Dec 2007  | ppm   | MRDGL 4          | MRDL 4            | 0.70           | 0.56-0.83          | No               | Water additive used to control microbes   |

| <b>2007 Turbidity – Monitored every 4 hours at Plant Finished Water Tap</b>  |  |                  |                                 |
|--|--|------------------|---------------------------------|
| Highest Single Measurement Cannot exceed 1 NTU   | Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%) | Violation yes/no | Major Sources in Drinking Water |
| 0.11 NTU   | 100%   | No               | Soil Runoff                     |
| Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. |  |                  |                                 |

| <b>2007 Microbiological Contaminants – Monthly Monitoring in Distribution System</b> |      |  |                         |                  |                                       |
|--|------|--|-------------------------|------------------|---------------------------------------|
| Contaminant  | MCLG | MCL  | Highest Number Detected | Violation yes/no | Major Sources in Drinking Water       |
| Total Coliform Bacteria  | 0    | Presence of Coliform bacteria > 5% of monthly samples  | in one month            |                  | Naturally present in the environment. |
| <i>E.coli</i> or fecal coliform bacteria   | 0    | A routine sample and a repeat sample are total coliform positive, and one is also fecal or <i>E.coli</i> positive. | entire year             |                  | Human waste and animal fecal waste.   |

| <b>2005 Lead and Copper Monitoring at Customers' Tap</b>   |           |       |                  |                 |                                    |                           |                  |  |
|--|-----------|-------|------------------|-----------------|------------------------------------|---------------------------|------------------|--|
| Contaminant  | Test Date | Units | Health Goal MCLG | Action Level AL | 90 <sup>th</sup> Percentile Value* | Number of Samples Over AL | Violation yes/no | Major Sources in Drinking Water  |
| Lead   | 2005      | ppb   | 0                | 15              |                                    |                           |                  | Corrosion of household plumbing system; Erosion of natural deposits.                                   |
| Copper   | 2005      | ppm   | 1.3              | 1.3             |                                    |                           |                  | Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives. |
| *The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met. |           |       |                  |                 |                                    |                           |                  |  |

| Regulated Contaminant      | Treatment Technique  | Running annual average | Monthly Ratio Range | Violation Yes/No | Typical Source of Conataminant |
|----------------------------|--|------------------------|---------------------|------------------|--------------------------------|
| Total Organic Carbon (ppm) | The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each month and because the level was low, there is no requirement for TOC removal. |                        |                     |                  | Erosion of natural deposits    |

### 2007 Special Monitoring

| Contaminant  | MCLG | MCL | Level Detected | Source of Contamination     |
|--------------|------|-----|----------------|-----------------------------|
| Sodium (ppm) | n/a  | n/a | 4.81           | Erosion of natural deposits |

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

| Treatment Technique   |     |  |   |  |   |  |   |
|-----------------------|-----|--|---|--|---|--|---|
| Regulated Contaminant | MCL | Treatment Technique (TT) Standard  | Treatment Technique (TT) Violation yes/no | Reason for violation   | Action Taken                                    | Major Sources in Drinking Water  | Health Effects  |
| Lead                  | TT  | No more than (9) days in a six (6) month period below the established minimum. | Yes                                       | During a 14-day period in January and February, phosphate pump malfunctions resulted in below optimal dosages. Phosphate was added to the water, but at a dosage below the state designated minimum. Despite this lower than acceptable dosage, phosphate residual concentrations in water leaving the plant and entering the distribution system were maintained above the established minimum. | The chemical feed pumps have all been repaired. | Corrosion of household plumbing system; Erosion of natural deposits.                                   | Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.   |
| Copper                | TT  | No more than (9) days in a six (6) month period below the established minimum  | Yes                                       | During a 14-day period in January and February, phosphate pump malfunctions resulted in below optimal dosages. Phosphate was added to the water, but at a dosage below the state designated minimum. Despite this lower than acceptable dosage, phosphate residual concentrations in water leaving the plant and entering the distribution system were maintained above the established minimum. | The chemical feed pumps have all been repaired. | Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives. | Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount 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. |

For more information, please contact [name of contact at your Water System] at [phone number]