# West Side Water System
# 2013 Annual Water Quality Report

## Dear Customer:

We are pleased to present the sixteenth annual report summarizing the quality of the drinking water provided to you during the past year. This "Consumer Confidence Report" is required by the Safe Drinking Water Act (SDWA). It tells you where your tap water comes from, what our tests show about it, and includes other things you may wish to know about drinking water.

We encourage public interest and participation in our community's decisions affecting drinking water. The Lansing Township Board of Trustees meets every other Tuesday at 7 p.m. in the Board Room, located at 3209 W. Michigan Avenue, Lansing, MI 48917.

## The Bottom Line

During 2013 your West Side Water System drinking water met or exceeded all quality standards issued by the U.S. Environmental Protection Agency (EPA) and the Michigan Department of Environmental Quality (MDEQ).

## Water Source

West Side Water System drinking water is supplied by the Lansing Board of Water & Light, which draws water from 127 wells, drilled about 400 feet into the Earth's surface. The source of this plentiful supply is an underground aquifer called the Saginaw Formation, which underlies much of the mid-Michigan region. Well water is transported through large transmission mains to one of two conditioning plants. There, a process removes about 80 percent of the water hardness. The softened water is then chlorinated, fluoridated, filtered and stored in reservoirs for distribution to our customers.

During 2003, MDEQ conducted an assessment of the vulnerability of our aquifer to impacts from human activities. Because there are several known and potential sources of contamination in and near the BWL wellhead protection areas, the aquifer in this region has been assessed as "highly susceptible" to contamination. If you desire more information on this local Source Water Assessment, contact Utilities Manager Randy Seida at 517-485-5470.

## Well Abandonment

The State of Michigan recently released funds to begin the program of plugging private abandoned wells under the Clean Michigan Initiative Grant. Release forms and letters describing the program have been mailed out to residents with known wells on their property. As a leader in this program, Lansing Township will offer plugging of any well at no charge to the homeowner regardless of the State of Michigan prerequisites. As has been the past practice, this is a joint venture with Delhi Township, Lansing Board of Water & Light, Delta Township, Meridian Township and Tri- County's Capital Area Groundwater Alliance. Educating the public is our primary goal and we believe it is the best way to promote an environmentally sound water supply. Please feel free to contact Lansing Township's West Side Water System with questions or suggestions to further our program.

## Important Information About 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. West Side Water System 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 or at http://water.epa.gov/drink/info/lead/index.cfm.

## How to Read These Tables

The following tables show the results of our water quality tests. Every regulated contaminant we detected in the water, even in the smallest traces, is listed here. The tables contain the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

The State allows us 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 of the data are representative of the water quality, but some are more than one year old.

The tables do not list the hundreds of contaminants we tested for but did not detect.

## Key To Tables:

**AL** **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL** **Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs 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. MCLGs allow for a margin of safety.

**MRDL** **Maximum Residual Disinfectant Level:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG** **Maximum Residual Disinfectant Level Goal:** The level of a disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**PPM** parts per million, or milligrams per liter (mg/l)

**PPB** parts per billion, or micrograms per liter (ug/l)

### SUBSTANCES WE MEASURED AT THE WATER CONDITIONING PLANT

| Substance | Unit | MCL | MCLG | Highest Detected Level | Range | Major Sources | Violation? |
|---|---|---|---|---|---|---|---|
| Barium | PPB | 2000 | 2000 | 15 | 15 to 15 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits | No |
| Fluoride | PPM | 4 | 4 | 0.73 | 0 to 0.73 | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories | No |

### SUBSTANCES WE MEASURED IN HOMES AND BUSINESSES

| Substance | Unit | AL | 9 out of 10 homes were below a level of: | # of samples above the action level: | Major Sources | Violation? |
|---|---|---|---|---|---|---|
| Copper | PPM | *1.3 at 90th percentile | 0.014 | 0 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives | No |

## Disinfection By-Products

The BWL adds chloramine to its water at the conditioning plant to protect against bacterial growth. Chloramine is used rather than other disinfectant options because it minimizes the number and level of chlorination by-products, persists better in the distribution system, and leaves little or no unpleasant odor and taste. The following table lists the chloramine levels and disinfectant by-products created by the reaction of the BWL's chloramine treatment and naturally occurring organic compounds. The chloramine levels were measured at the water plant tap and the disinfectant by-products were measured in the distribution system.

### SUBSTANCES WE FOUND IN THE WATER DISTRIBUTION SYSTEM

| Substance | Unit | MCL | MCLG | Highest Average Detected Level | Range of Detected Levels | Major Sources | Violation? |
|---|---|---|---|---|---|---|---|
| Haloacetic Acids (HAA5) | PPB | 60 | NA | 1.2 | 1.2 to 1.2 | By-product of drinking water chlorination | No |
| Total Trihalomethanes (THMs) | PPB | 80 | NA | 2.9 | 2.9 to 2.9 | By-product of drinking water chlorination | No |
| Chloramine | PPM | 4 | 4 | 1.1 | 0.8 to 1.1 | Water additive used to control microbes | No |

## Unregulated Contaminants

Unregulated contaminants are those that have no MCL or MCLG but are monitored for the purpose of providing information to MDEQ and EPA on their occurrence.

| Substance | Unit | Average Detected Level | Lowest Detected Level | Highest Detected Level | Major Source | Violation? |
|---|---|---|---|---|---|---|
| Sodium | PPM | 83 | 83 | 83 | Natural constituent of groundwater | No |

**Cryptosporidium:** We tested for Cryptosporidium in 2000 and did not detect any. Cryptosporidium is a microbial pathogen occasionally found in surface waters. If ingested it can cause cryptosporidiosis; a gastrointestinal infection with symptoms of cramping, nausea or diarrhea. Cryptosporidium can be spread by means other than drinking water. It is not a concern for water systems like ours that draw their drinking water from deep wells.

**Radon:** We last monitored for radon in 2000. The results were between 140 and 150 picoCuries per liter (pCi/l). This is a relatively low level for groundwater, which contains radon gas that has dissolved into the water from surrounding soils. A proposed EPA Rule for radon, yet to be finalized, would establish maximum contaminant levels of between 300 and 4,000 pCi/l for public water supplies. Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 pCi/l or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or EPA's Radon Hotline (800-SOS-RADON)

Radium 226 and 228: We monitored for both radium 226 and 228 in 2003 and did not detect either.

## General Health Information Provided by EPA

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, which can also come from gas stations, urban stormwater runoff and septic systems.

(E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities. In order 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immune-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 infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

## National Primary Drinking Water Regulation Compliance

For more information about our water quality, please contact Utilities Manager Randy Seida at 517-485-5470. You may also learn more about Lansing Township's West Side Water System at www.westsidewater.com. Learn more about the Lansing Board of Water & Light water system at www.lbwl.com. For more information about safe drinking water, visit the U.S. Environmental Protection Agency (EPA) at www.epa.gov/safewater/.