

Delta Township

2016 Annual Water Quality Report

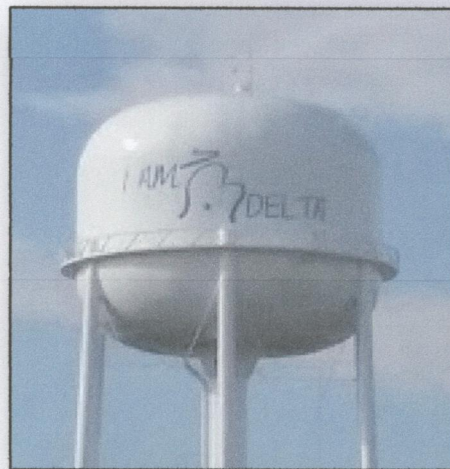
Dear Customer:

We are pleased to present the nineteenth 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 whenever decisions that impact our community's water quality are made. The Township Board of Trustees meets the first and third Monday of each month at the Township Administration Building, 7710 W. Saginaw Highway, Lansing. The meetings start at 6 p.m. and are open to the public.

The Bottom Line

During 2016 your Delta Township 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

Delta Township owns and operates its own water system. However, we do not have a water treatment plant. We purchase softened water from the Lansing Board of Water & Light. This approach allows our customers the advantage of clean, conditioned drinking water at a lesser cost than the Township could provide by building our own water treatment plant. And, instead of competing for use of the same resources, Delta Township and the BWL work together to share and protect our groundwater.

The BWL 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. Water from the wells 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.



<http://bit.ly/DeltaTwpWaterReport>

Protecting Your Water Supply

Communities throughout mid-Michigan rely on the Saginaw Formation for their drinking water and are working cooperatively to manage and protect it. We're also working with other cities, townships and planning agencies to develop a regional wellhead protection plan. The plan is designed to keep pollution hazards away from current and future well sites.

During 2003, the 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 Utility Director Richard Kane at 517-323-8570.

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 the data are representative of the water quality, but some are more than a year old.

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

Key to Tables:

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Contaminant Level (MCL): 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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): means the level of a drinking water disinfectant 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 contaminants.

N/A: Not applicable ND: not detectable at testing limit ppb: parts per billion or micrograms per liter ppm: parts per million or milligrams per liter pCi/l: picocuries per liter (a measure of radioactivity).

Level 1 Assessment: A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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. Delta Township 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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Lead and Copper Monitoring Results

Action Levels	90th Percentile	# of Samples Above Action Level
Lead 15 parts Per billion (ppb)	2.2 ppb	0
Copper 1300 parts Per billion (ppb)	8.7 ppb	0

Important Information About Lead

From January 1, 2016 to March 31, 2016:

Microbial Contaminants	MCL	MCLG	Number Detected	Violation? Yes/No	Typical Source of Contaminant
Total Coliform Bacteria	>1 positive monthly sample (>5.0% of month samples positive)	0	0	No	Naturally present in the environment
Fecal Coliform And E. coli	Routine and repeat sample total coliform positive and one is also fecal or E. coli positive	0	0	No	Human and animal fecal waste

From April 1, 2016 to December 31, 2016:

Microbial Contaminants	Number Detected	Level 1 Assessment Triggered?	Level 2 Assessment Triggered?	Violation? Yes/No	Typical Source of Contaminant
Total Coliform Bacteria	0	No	No	No	Naturally present in the environment
Fecal Coliform And E. coli	0	No	No	No	Human and animal fecal waste

2016 Substances Measured at the Water Conditioning Plant (BWL)

Regulated Contaminant	Unit	MCL	MCLG	Highest Detected Level	Range	Date Tested	Major Sources	Violation?
Barium	PPM	2	2	0.022	0.015 to 0.022	07-25-12	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride	PPM	4	4	0.56	0 to 0.56*	07-07-16	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	No
Radioactive Contaminant	Unit	MCL	MCLG	Highest Detected Level	Range	Date Tested	Major Sources	Violation?
Radium 226 and 228	pCi/L	5	0	1.95 ± 0.44	0.84 ± 0.51 to 1.95 ± 0.44	07-07-16	Erosion of natural deposits	No

***Water Quality Table Footnote:** Dye Conditioning Plant was not feeding fluoride from March through December 2016 while the fluoride feed equipment was down for repair.

Disinfectants and 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.

Substance	Unit	MCL	MCLG	Highest Average Detected Level	Range of Detected Levels	Major Sources	Violation?
Haloacetic Acids (HAAS)	PPB	60	NA	1.4	1.3 to 1.4	By-product of drinking water chlorination	No
Total Trihalomethanes (THMs)	PPB	80	NA	3.6	3.4 to 3.6	By-product of drinking water chlorination	No
Chloramine	PPM	4	4	2.18	1.79 to 2.41	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.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Availability of Monitoring Data for Unregulated Contaminants for Lansing Board of Water & Light

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA.

The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact Richard Kane at 517-323-8570 or at RKane@deltami.gov.

Special Monitoring (Not Regulated)	Unit	MCL	Highest Detected Level	Range	Date Tested	Major Source	Violation?
Sodium	PPM	Not Established	120	82 - 120	07-07-16	Natural constituent of groundwater	N/A

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, since withdrawn, would have established maximum contaminant levels of between 300 to 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 United States. 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)

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, storm water runoff and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, can also come from gas stations, urban storm water 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 individuals 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 Utility Director Richard Kane at 517-323-8570. Learn more about Delta Township utilities at www.deltami.gov. 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/.