

# Delta Township

## 2018 Annual Water Quality Report

### *Dear Customer:*

We are pleased to present the twenty-first annual report summarizing the quality of the drinking water provided to you during the past year. This *Consumer Confidence Report* is required by the Federal and State of Michigan Safe Drinking Water Acts (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 your 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 2018 your Delta Township drinking water **continues to meet or exceed** all quality standards established by the U.S. Environmental Protection Agency (EPA) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE).



<http://bit.ly/DeltaTwpWaterReport>



### *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 drinking water comes from 125 groundwater wells, that are approximately 400 feet deep. 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.

The plants soften the water by removing about 80 percent of the hardness. The softened water is then chlorinated, fluoridated, treated with corrosion control, filtered and stored in reservoirs for distribution to our customers.

## 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, EGLE 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:

- AL** **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- L1** **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.
- L2** **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.
- 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.
- 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.
- 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 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 contaminants.
- N/A** **Not Applicable**
- ND** **Not detectable at testing limit**
- pCi/l** **Picocuries per liter** (a measure of radioactivity).
- PPB** **Parts Per Billion** or micrograms per liter (ug/l) (Equivalent to one penny in \$10,000,000).
- PPM** **Parts Per Million** or milligrams per liter (mg/l) (equivalent to one penny in \$10,000).

### 2018 Substances Measured at the Water Conditioning Plant (BWL)

Regulated Contaminant	MCL or MRDL	MCLG Or MRDLG	Highest Level Detected	Range	Date Tested	Violation?	Major Sources		
Barium (ppm)	2	2	0.022	0.015 to 0.022	07-25-12	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits		
Fluoride (ppm)	4	4	0.72	0 to 0.72	07-24-18	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories		
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	

## Substances We Measure in the Distribution System

### Microbiological Contaminants

Microbial Contaminants	Number Detected	L1 Assessment Triggered?	L2 Assessment Triggered?	Violation	Major Sources
Total Coliform Bacteria	2	Yes	No	No	Naturally present in the environment
E. coli	0	0	No	No	Human or animal fecal waste

L1 Assessment triggered after Total Coliform positives on 6/19/2018 and 6/26/2018. Positive Total Coliform values on both dates were determined to be sampler error.

### 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://bit.ly/leadwaterinfo>

Inorganic Contaminant Subject to AL	AL	MCLG	Your Water <sup>4</sup>	Year Sampled	# Of Samples Above AL	Does System Exceed AL? Yes/No	Typical Sources of Contaminant
Lead (ppb)	15	0	1.7	2017	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	1.3	0.012	2017	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood

<sup>4</sup>90 percent of the samples collected were at or below the level reported for our water.

### 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	MCL or MRDL	MCLG Or MRDLG	Level Detected	Range	Year Sampled	Violation?	Major Sources
HAA5 Haloacetic Acids (ppb)	60	N/A	1.3	1.2 to 1.3	2018	No	By-product of drinking water disinfection
TTHM - Total Trihalomethanes (ppb)	80	N/A	3.3	3.1 to 3.3	2018	No	By-product of drinking water disinfection
Chloramine (ppm) <sup>2</sup>	4	4	2.13	1.81 to 2.25	2018	No	Water additive to control microbes

<sup>2</sup>The chlorine "Level Detected" was calculated using a running annual average

## Unregulated Contaminants

Unregulated contaminants do not have an MCL or MCLG but are reported to and evaluated by the MDEQ and EPA. Monitoring helps the EPA determine which areas of the country these contaminants are being detected and to develop future regulations.

Delta monitored for 1,4-Dioxane, at the entry point to our distribution system in 2013 and 2014. It was detected at trace levels (less than 0.2 ppb). The EPA has established a lifetime health advisory level of 200 ug/L (or ppb), and EGLE established an action level of 7.2 ppb (consistent with the Part 201 Residential Drinking Water Cleanup Criterion). Our water supplier, the BWL, continues to monitor 1,4-Dioxane at their Dye Water Conditioning Plant on a quarterly basis.

### Unregulated Contaminant Monitoring Rule 3 That Were Detected

Unregulated Contaminants	Unit	Average Detected Level	Range	Date Tested	Major Sources
Chromium	PPB	0.3	0.2 – 0.4	Aug 2013 & Feb 2014	Natural constituent of groundwater
Molybdenum	PPB	1.02	1.0 - 1.1	Aug 2013 & Feb 2014	Industrial activities; naturally occurring sources
Strontium	PPB	205	200 - 210	Aug 2013 & Feb 2014	Industrial activities; naturally occurring sources
Chromium, Hexavalent	PPB	0.23	0.15 - 0.32	Aug 2013 & Feb 2014	Industrial activities; naturally occurring sources
1,4-Dioxane	PPB	0.13	0.11 - 0.15	Aug 2013 & Feb 2014	Groundwater contamination from manufacturing processes & landfills
Chlorate	PPB	60.5	38 - 80	Aug 2013 & Feb 2014	By-product of disinfection

Unregulated Contaminant	Unit	MCL	Highest Detected Level	Range	Date Tested	Major Sources	Violation?
Sodium <sup>1</sup>	PPM	Not Established	79	60-79	07-06-17	Natural constituent of groundwater	N/A

<sup>1</sup>Sodium is not a regulated contaminant.

### 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, which must provide the same protection for public health.

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.

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 microbial contaminants 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](http://www.deltami.gov). Learn more about the Lansing Board of Water & Light water system at [www.lbwl.com](http://www.lbwl.com). For more information about safe drinking water, visit the U.S. Environmental Protection Agency (EPA) at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).