

2017 Water Quality Report for CITY OF DURAND 1900

This report covers the drinking water quality for City of Durand for the 2017 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2017. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from 4 groundwater wells, 2 are 35 feet deep, 2 are 79 feet deep. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is very low.

There are no Significant sources of contamination include in our water supply. We have completed a comprehensive Wellhead Protection Plan to help protect our water.

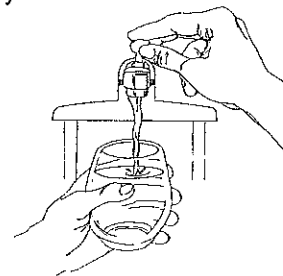
If you would like to know more about the report, please contact Robert Witherell, utility supervisor at 989-288-3113 or Michigan DEQ.

- **Contaminants and their presence in 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 **EPA's Safe Drinking Water Hotline (800-426-4791)**.
- **Vulnerability of sub-populations:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).
- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs,

springs, and wells. Our water comes from wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, 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:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.



In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2017 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2017. 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 is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- 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): 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.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- 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).
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- 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.

| Regulated Contaminant | MCL, TT, or MRDL | MCLG or MRDLG | Level Detected | Range | Year Sampled | Violation Yes / No | Typical Source of Contaminant |
|---|------------------|---------------|----------------|-------------|--------------|--------------------|--|
| Inorganic Contaminants | | | | | | | |
| Arsenic (ppb) | 10 | 0 | .0002 | .0001-.0004 | 2017 | NO | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Nitrate (ppm) | 10 | 10 | ND | | 2017 | | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | .24 | | 2017 | | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Sodium ¹ (ppm) | N/A | N/A | 19 | | 2017 | | Erosion of natural deposits. |
| Disinfectants & Disinfection By-Products | | | | | | | |
| TTHM - Total Trihalomethanes (ppb) | 80 | N/A | .051 | | 2017 | NO | Byproduct of drinking water disinfection |
| HAA5 Haloacetic Acids (ppb) | 60 | N/A | .0009 | | 2017 | NO | Byproduct of drinking water disinfection |
| Chlorine ² (ppm) | 4 | 4 | 1.3 | .01-2.2 | 2017 | NO | Water additive used to control microbes |
| Radioactive Contaminants | | | | | | | |

| | | | | | | | |
|---|--|-------------|-------------------------------|---------------------|------------------------------|--|--|
| Alpha emitters (pCi/L) | 15 | 0 | 0 | | 2015 | NO | Erosion of natural deposits |
| Combined radium (pCi/L) | 5 | 0 | 0 | | 2015 | NO | Erosion of natural deposits |
| Microbiological Contaminants | | | | | | | |
| Total Coliform (total number or % of positive samples/month) | TT | N/A | N/A | N/A | 0 | NO | Naturally present in the environment. |
| <i>E. coli</i> in the distribution system (positive samples) | See <i>E. coli</i> ³ note below | 0 | | N/A | 0 | NO | Human and animal fecal waste. |
| Fecal Indicator – <i>E. coli</i> at the source (positive samples) | TT | N/A | | N/A | 0 | NO | Human and animal fecal waste. |
| Inorganic Contaminant Subject to AL | AL | MCLG | Your Water⁴ | Year Sampled | # of Samples Above AL | Does System Exceed AL? Yes / No | Typical Source of Contaminant |
| Lead (ppb) | 15 | 0 | 0 | 2015 | 0 | NO | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper (ppm) | 1.3 | 1.3 | .04 | 2015 | 0 | NO | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |

¹ Sodium is not a regulated contaminant.

² The chlorine "Level Detected" was calculated using a running annual average.

³ *E. coli* MCL violation occurs if: (1) routine and repeat samples total coliform-positive and either is *E. coli*-positive, or (2) supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) supply fails to analyze total coliform-positive repeat sample for *E. coli*.

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

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. City of Durand 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://www.epa.gov/safewater/lead>

[Lead] 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] 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.

Monitoring and Reporting to the DEQ Requirements: The State and EPA require us to test our water on a regular basis to ensure its safety. We were in violation for missing a fourth quarter arsenic sample and we were back in compliance 2/8/2018 we met all other monitoring requirements,

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at Durand City Hall 215 W. Clinton ST. Durand, MI. 48429 or at WWW.Durand.Com/ccr.pdf. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. The public is welcome to attend City Council meeting held the first Monday of the month at 7:30. For more information about your water, or the contents of this report,

contact Robert Witherell at 989-288-3113 or visit the web site at www.durand.com. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.