

2025 Water Quality & Consumer Confidence Report



DEPARTMENT OF PUBLIC WORKS

6050 Flemings Lake Road, Clarkston, MI 48346

248-625-8222 • fax 248-625-4393

Email dpw@indtwp.com

Complete Distribution System Materials Inventory (CDSMI)

The CDSMI characterizes, records, and maintains a comprehensive inventory of water distribution system materials, including service line materials on both public and private property. The goal of the CDSMI is to identify materials of the entire service line to determine if they are made of lead, galvanized previously connected to lead (GPCL), or unknown materials that may contain lead. The table below identifies the material type and service line information in our system as of this writing:

	Deerwood	Hillview	Main Loop
Number of Service Lines	700	109	5,809
Lead Service Lines	0	0	0
GPCL Service Lines	1	0	9
Unknown Material Ser-	1	5	988

Since 1974, Independence Township has required public water service line materials be made of either copper or plastic.

The CDSMI is publicly available at https://www.indtwp.com/. For more information or for any questions relating to your drinking water, please call The Department of Public Works (DPW) at 248-625-8222.

Office hours

Monday - Thursday (7:00 AM - 5:30 PM)

After hours emergency phone: 248-866-4844

Welcome

This report covers the drinking water quality for Independence Township for the 2025 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2025. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (U.S. EPA) and state standards.

Please share this information with anyone who drinks this water (or their guardians), especially those who may not have received this report directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this report in a public place or distributing copies by hand, mail, email, or another method.

Where Does Our Water Come From?

The water from your tap is pumped directly from one of sixteen wells in ten wellfields. The attached map on the following page shows how the water system is divided into three service areas: Main Loop, Deerwood and Hillview Estates. The area south of I-75 is designated as Independence Township's Main Loop Service Area. The majority of customers served by the Township's water system are connected to the Main Loop. This area is served primarily by nine wells located within six wellfields, Clarkston Gardens (offline), Chestnut Hills (offline), Lake Oakland Woods, Bay Court, Waldon Creek and Pelton Heights. Deerwood Service Area is served by four wells within three wellfields; (Deerwood II and III (Manors) and Deer Valley I and II). All three well sites have Iron/Arsenic removal with disinfection. Hillview Estates Service Area, located in the northeast corner of the Township, is served by three wells in the Hillview Estates wellfield. Disinfection has been added to this well site.

Welcome 1

Service Areas and Protection Map 2

Source Water Assessment & Protection 3

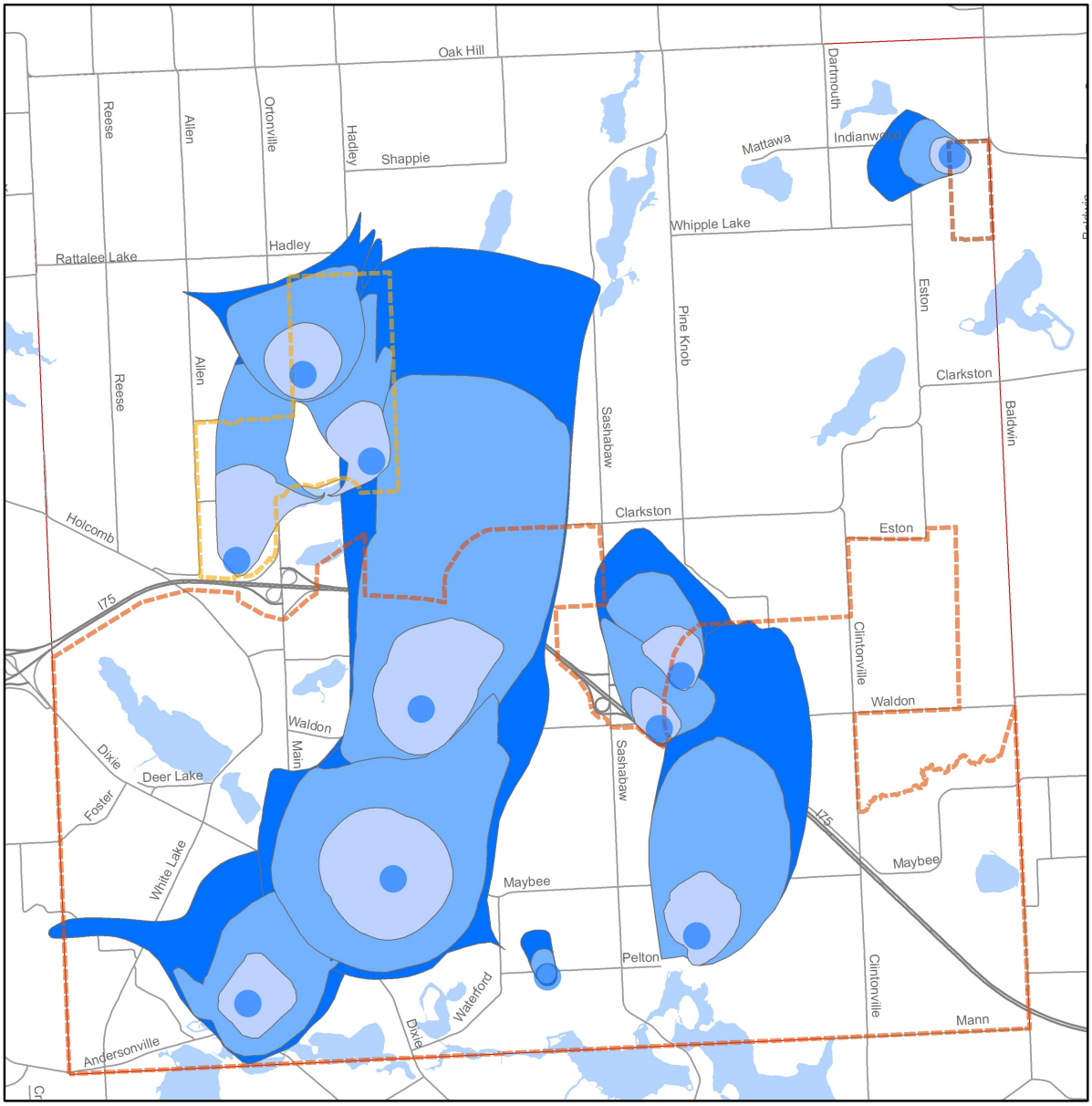
Water Substances 4

Water Quality Data 5

Water Quality Data 6



WELL SERVICE AREAS AND WELLHEAD PROTECTION



0 0.5 1 2 Miles

Legend

- WHPA Wellfields
- Roads
- Lakes
- Township

Well Service Areas

- Deerwood
- Hillview
- Main Loop

Capture Zones

- 1 Year
- 5 Year
- 10 Year

Source Water Assessment & Protection

The Michigan Department of Environmental Quality (MDEQ, now known as EGLE) completed an assessment of our source water in 2004 as part of the Environmental Protection Agency's (EPA) Source Water Assessment Program (SWAP). The purpose was to determine the susceptibility or the relative potential of contamination in our communities source water. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based upon geologic and water well attributes, water chemistry, and potential contaminant sources. The results of the assessment are as follows:

Main Loop (3342) - Moderate*

Hillview Estates (3175) - Low*

Deerwood (1773) - Moderately Low*

You can find the SWAP Final Report as submitted to the EPA on EGLE's (Department of Environment, Great Lakes, and Energy) website https://www.michigan.gov/egle, and the results of that report by contacting the DPW at (248) 625-8222.

In Michigan, a voluntary Source Water Protection Program (SWPP) exists to protect public water supply systems from potential sources of contamination. Protection is provided by delineating the area where groundwater contributes to our drinking water system (see the map on the previous page), identifying sources of contamination within that area, and developing methods to manage and minimize the threat of contamination. Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides– they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Properly dispose of expired pharmaceuticals. Drop them off at the Independence Township Substation (6560 Citation Drive) during normal business hours. Old medications can also be dropped off at any North Oakland Household Hazardous Waste Program (NO HAZ) Collection site. Additional locations, during normal business hours, are found below:

  CVS Pharmacy #8155 – 5529 Sashabaw Road

  Walgreens Store #5171 – 7110 Dixie Highway
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.

Possible Source of Contamination

In 2018, the State of Michigan tested all of Independence Township's wells for PFAS and the results all came back negative with the exception of our Clarkston Gardens wellhouse. The source of PFAS has not been confirmed, though it is thought to originate from the Clarkston Road Landfill where historical hazardous substance disposal may have occurred. The Clarkston Road Landfill is a 25-acre landfill operated from the 1940s until 1978. Information on file with EGLE indicates that the landfill was not properly closed when it ceased operations in 1978.

To protect our source water, the Clarkston Gardens wellhouse was immediately taken offline even though test results were well below the health advisory level of 70 parts per trillion (ppt). Since that report, the Chestnut Hills wellhouse later tested for elevated levels of PFAS and was closed as a precaution as well. Preliminary plans include installing treatment filters at the wellhouses to capture and dispose of PFAS, or instead abandoning the wells and creating a new wellhouse at an alternative location.

* represents the highest potential susceptibility determined from all wells within the WSSN system.

SUBSTANCES THAT COULD BE IN WATER

To ensure that tap water is safe to drink, U.S. Environmental Protection Agency (EPA) sets regulations limiting the amount of certain contaminants in public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may contain a small amount of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. For more information about contaminants and potential health effects, call the U.S. EPA at (1- 800-426-4791).

SOURCES OF DRINKING WATER

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. Independence Township's water supply is provided by community wells. As water travels over land or through the ground, it dissolves naturally accumulating minerals that pick up substances from the presence of animals or human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, 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, may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

SPECIAL PRECAUTION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as cancer patients undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers.

EPA/Centers for Disease Control (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 (1-800-426-4791).

INFORMATION ABOUT LEAD

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Independence Township is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from your water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry, or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for at least 5 minutes to flush water from both your home pluming and the lead service line. If you are concerned about lead in your water and wish to have your water tested, contact Independence Township at the Department of Public Works (DPW) at (248) 625-8222 for available resources. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at https://www.epa.gov/safewater/lead.

Susceptible vulnerable subpopulation to lead includes infants and children. Infants and children who drink water containing lead 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.

Water Quality Data

Definitions

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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 MCLG 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 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 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.

Contaminant: Any physical, chemical, biological, or radiological substance or matter in water.

Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

Herbicide: Any chemical (s) used to control undesired vegetation.

Abbreviations

pCi/L: Picocuries per liter

ppm: Parts per million or milligrams per liter

ppb: Parts per billion or micrograms per liter

ppt: Parts per trillion or nanograms per liter

NA: Not applicable

ND: Not detectable at testing limit

CONTAMINANTS IN DRINKING WATER

The table below lists all the drinking water contaminants that we detected during the 2025 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 through December 31, 2025. 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 is representative of the water quality, but some are more than one year old.

ARSENIC: While your drinking water meets the U.S. EPA standard for arsenic, it does contain low levels of arsenic. The U.S EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

LEAD: There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups, especially pregnant people, infants (both formula-fed and breastfed), and young children. Some of the health effects to infants and children include decreases in IQ and attention span. Lead exposure can also result in new or worsened learning and behavior problems. The children of persons who are exposed to lead before or during pregnancy may be at increased risk of these harmful health effects. Adults have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

Monitoring and Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2025.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available online at https://www.indtwp.com/, as well as at the Department of Public Works. This report will not be sent to you.

PUBLIC PARTICIPATION

We invite public participation in decisions that affect drinking water quality. The Board of Trustees regularly meets at Independence Township Hall, the dates and times can be found at https://www.indtwp.com/. For more information about your water, or the contents of this report, contact Dave Mckee at (248) 625-8222. For more information about safe drinking water, visit the U.S. EPA at http://www.epa.gov/safewater.

*Indicates the highest running annual average

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

*** 90% of homes tested have lead/copper levels at or below the 90th percentile value.

Water Quality Data

Contaminate	MCL	MCLG	WSSN	Level Detected	Violation	Year	Major sources in drinking water
DISINFECTANTS							
Chlorine Residual (ppm)	MRDL = 4	MRDLG = 4	Deerwood Hillview Main Loop	0.66*(0.12 - 1.35) 1.04*(0.14 - 2.20) 0.72*(0.17 - 1.46)	No	2025	Water additive used to control microbes
DISINFECTION BYPRODUCTS							
Total Haloacetic Acids (five) (ppb)	60	N/A	Deerwood Hillview Main Loop	1 3 (2 - 3)	No	2025	By-product of drinking water disinfection
Total Trihalomethanes (ppb)	100/80	N/A	Deerwood Hillview Main Loop	8.1 9.4 (7.8 - 20.5)	No	2025	By-product of drinking water disinfection
INORGANIC CONTAMINANTS							
Arsenic (ppb)	10	0	Deerwood Hillview Main Loop	ND 7 (2 - 8)	No	2025 2022 2025	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	Deerwood Hillview Main Loop	(0.11 - 0.17) 0.11 (0.09 - 0.22)	No	2025 2022 2025	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Selenium (ppb)	50	50	Deerwood Hillview Main Loop	ND 3 ND	No	2025 2022 2025	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Fluoride (ppm)	4	4	Deerwood Hillview Main Loop	(0.12 - 0.25) ND (0.27 - 0.74)	No	2025	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	Deerwood Hillview Main Loop	ND ND (1.5 - 2.6)	No	2025	Runoff from fertilizer use; Leaching from septic tanks, sew age; Erosion of natural deposits
Nitrite (ppm)	1	1	Deerwood Hillview Main Loop	ND ND 0.08	No	2025	Runoff from fertilizer use; Leaching from septic tanks, sew age; Erosion of natural deposits
Sodium (ppm)	N/A	N/A	Deerwood Hillview Main Loop	(11 - 19) 28 (16 - 170)	No	2025	Erosion of natural deposits
Lithium, Total (ppm)	N/A	N/A	Deerwood Hillview Main Loop	NA NA 11	No	2025	
RADIOLOGICAL CONTAMINANTS							
Gross Alpha (Red) (pCi/L)	15	0	Deerwood Hillview Main Loop	(0.22 ± 1.16 - 2.4 ± 1.2) 1.4 ± 1.3 (1.34 - 2.78)	No	2021 2025 2025	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	Deerwood Hillview Main Loop	0.736 0.882 (0.323 - 0.709)	No	2024 2024 2025	Erosion of natural deposits
Uranium (ppb)	30	0	Deerwood Hillview Main Loop	(0.5 - 0.7) ND 0.6	No	2024 2024 2025	Erosion of natural deposits
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)							
(PFBA) perfluorobutanoic acid (ppt)			Deerwood Hillview Main Loop	ND ND (3 - 6)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
(PFPeA) perfluoropentanoic acid (ppt)			Deerwood Hillview Main Loop	ND ND (2 - 4)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
(PFBS) perfluorobutanesulfonic acid (ppt)	420		Deerwood Hillview Main Loop	ND ND (4 - 5.2)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
(PFHxA) perfluorohexanoic acid (ppt)	400,000		Deerwood Hillview Main Loop	ND ND (2 - 3.3)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
(PFPeS) perfluoropentanesulfonic acid (ppt)			Deerwood Hillview Main Loop	ND ND (4 - 5)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
(PFHxS) perfluorohexanesulfonic acid (ppt)	51		Deerwood Hillview Main Loop	ND ND (26 - 29)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
(PFOA) perfluorooctanoic acid (ppt)	8		Deerwood Hillview Main Loop	ND ND (3 - 6)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
(PFOS) perfluorooctanesulfonic acid (ppt)	16		Deerwood Hillview Main Loop	ND ND (7 - 9.4)	No	2025	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities

Contaminate	Action Level	MCLG	WSSN	90th Percentile Value	Range of Results	Number of Samples Above AL	Year	Major sources in drinking water
Inorganic Contaminant Subject to Action Levels (AL)								
Lead (ppb)	AL = 12	0	Deerwood Hillview Main Loop	2 1 2	0 - 23 0 - 1 0 - 7	1 of 13 0 of 5 0 of 30	2024	Corrosion of household plumbing systems and service lines connecting buildings to water mains, erosion of natural deposits
Copper (ppm)	AL = 1.3	1.3	Deerwood Hillview Main Loop	0.2 0.2 0.2	0 - 0.2 0 - 0.2 0 - 0.4	0 of 13 0 of 5 0 of 30	2024	Corrosion of household plumbing systems; Erosion of natural deposits

