

2020 Annual Drinking Water Quality Report

Town of Malvern - Water Department

Malvern Water Department is very pleased to provide you with this year's Annual Quality Water Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide you a safe and dependable supply of drinking water. We want you to understand the efforts we make to maintain and continually improve the water you receive and to protect our water supply.

Malvern's water is groundwater drawn from three (3) wells. These wells draw from the Lisbon, Tallahatta, Hatchetigbee, and Nanafalia-Clayton aquifers. At each well, chlorine is added as a disinfectant. Each water system must complete a Source Water Assessment Program (SWAP). The SWAP is comprised of four distinct activities: delineation of the source water assessment area, contaminant inventory, susceptibility analysis and public awareness. Malvern has completed each requirement component of the source water assessment and a copy is available for your review in Malvern Town Hall.

definitions

- **Non-Detects (ND)** – laboratory analysis indicates that the constituent is not present.
- **Parts per million (ppm) or milligrams per liter (mg/l)** – one part per million corresponds to one minute in two years, or a single penny in \$10,000.
- **Parts per billion (ppb) or micrograms per liter (µg/L)** – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or nanograms per liter (ng/L)** – one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Parts per quadrillion (ppq) or picograms per liter (pg/L)** – one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.
- **Picocuries per liter (pCi/l)** – picocuries per liter is a measure of radioactivity in water.
- **Millirems per years (mrem/yr)** – measure of radiation absorbed by the body.
- **Nephelometric Turbidity Units (NTU)** – a measure of the clarity of water. Turbidity more than 5 NTU is just noticeable to the average person.
- **Maximum Contaminant Level** – The "Maximum Allowed" (MCL) is the highest level of a contaminant that

We are pleased to report that our drinking water is safe and meets federal and state requirements. If you have any questions about this report or concerning your water utility, please contact Mrs. Louise Couture at (334) 793-6537.

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled board meetings. They are held on the first Tuesday of each month at 6:00 p.m. in Malvern Community Hall. Malvern Water Department routinely monitors for constituents in your drinking water according to Federal and State laws.

This table shows the results of our monitoring for the period of January 1st to December 31st, 2020. It is important to remember that the presence of these constituents does not necessarily pose a health risk. This table has many abbreviations you might not be familiar with. To help you better understand these abbreviations we have provided the following definitions:

- **is allowed in drinking water.** MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal – The "Goal" (MCLG)** is 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 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.
- **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.
- **MFL** – Million Fibers per Liter.
- **AL** – Action Level – the concentrations of a contaminant, which, if exceeded, triggers, treatment, or other requirements, which a water system must follow.
- **TT** – Treatment Technique – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Variances and Exemptions** – The Department or EPA permission not to meet and MCL or a treatment technique under certain conditions.

Table of Detected Contaminants

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity	No	.16	NTU	n/a	TT	Soil runoff
Radioactive Contaminants						
Alpha emitters	No	0.3 ± 0.8	pCi/l	n/a	15	Erosion of natural deposits
Combined radium	No	0.6 ± 0.4	pCi/l	n/a	5	Erosion of natural deposits
Inorganic Contaminants						
Copper	No	.21	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	No	2.5	ppb	N/A	AL=15	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Nitrate	No	.74	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants						
TTHM [Total trihalomethanes]	No	7.3	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	2.5	ppb	N/A	60	By-product of drinking water chlorination

Table of Primary Contaminants

At high levels some primary contaminants are known to pose a health risk to humans. This table provides a quick glance of any primary contaminant detections.

Contaminant	MCL	Malvern Water	Contaminant	MCL	Malvern Water
Bacteriological			Endrin		
Total Coliform Bacteria	<5%	ND	Epichlorohydrin	TT	ND
Turbidity	5.0 NTU	0.16	Glyphosate	700 ppb	ND
Fecal coliform and E. coli	TT	ND	Total Organic Carbon (TOC)	TT	ND
Radiological			Heptachlor	400 ppt	ND
Beta/Photon Emitters	4	ND	Heptachlor epoxide	200 ppt	ND
Alpha Emitters	15	0.3 ± 0.6	Hexachlorobenzene	1 ppb	ND
Combined Radium	5	0.6 ± 0.4	Hexachlorocyclopentadiene	50 ppb	ND
Inorganic			Lindane	200 ppt	ND
Antimony	6 ppb	ND	Methoxychlor	40 ppb	ND
Arsenic	10 ppb	ND	Oxamyl (Vydate)	200 ppb	ND
Asbestos (MFL)	7	ND	PCBs	500 ppt	ND
Barium	2 ppm	ND	Pentachlorophenol	1 ppb	ND
Beryllium	4 ppb	ND	Picloram	500 ppb	ND
Cadmium	5 ppb	ND	Simazine	4 ppb	ND
Chromium	100 ppb	ND	Toxaphene	3 ppb	ND
Copper	AL=1.3 ppm	0.21	Benzene	5 ppb	ND
Cyanide	200 ppb	ND	Carbon Tetrachloride	5 ppb	ND
Fluoride	4 ppm	ND	Chlorobenzene	100 ppb	ND
Lead	AL=15 ppb	2.5	Dibromochloropropane	200 ppt	ND
Mercury	2 ppb	ND	p-Dichlorobenzene	600 ppb	ND
Nitrate	10 ppm	0.74	p-Dichlorobenzene	75 ppb	ND
Nitrite	1 ppm	ND	1,2-Dichloroethane	5 ppb	ND
Selenium	50 ppb	ND	1,1-Dichloroethylene	7 ppb	ND
Thallium	2 ppb	ND	cis-1,2-Dichloroethylene	70 ppb	ND
Organic Chemicals			trans-1,2-Dichloroethylene	100 ppb	ND
2,4-D	70 ppb	ND	Dichloromethane	5 ppb	ND
2,4,5-TB (Silvex)	50 ppb	ND	1,2-Dichloropropane	5 ppb	ND
Acrylamide	TT	ND	Ethylbenzene	700 ppb	ND
Atachlor	2 ppb	ND	Ethylene dibromide	50 ppt	ND
Atrazine	3 ppb	ND	Styrene	100 ppb	ND
Benzo(a)pyrene (PAHs)	200 ppt	ND	Tetrachloroethylene	5 ppb	ND
Carbofuran	40 ppb	ND	1,2,4-Trichlorobenzene	70 ppb	ND
Chlordane	2 ppb	ND	1,1,1-Trichloroethane	200 ppb	ND
Dalapon	200 ppb	ND	1,1,2-Trichloroethane	5 ppb	ND
Di-(2-ethylhexyl) adipate	400 ppb	ND	Trichloroethylene	5 ppb	ND
Di-(2-ethylhexyl) phthalates	6 ppb	ND	TTHM	80 ppb	7.3
Dinoseb	7 ppb	ND	Haloacetic Acids (HAA5)	60 ppb	2.5
Diquat	20 ppb	ND	Toluene	1 ppm	ND
Dioxin [2,3,7,8-TCDD]	30 ppt	ND	Vinyl Chloride	2 ppb	ND
Endothal	100 ppb	ND	Xylenes	10 ppm	ND



Unregulated contaminants have no MCL set by the EPA or ADEM but are tested for in your drinking water. These contaminants pose many of the same health risk as the regulated contaminants but their presence in most drinking water is not frequent enough to warrant regulation. Unregulated contaminants are tested for to provide historical data on components presence in drinking water over time.

Test Results – Unregulated Contaminant Table

Monitoring results in ppm

CONTAMINANT	Low Result	High Result	CONTAMINANT	Low Result	High Result
1,1 – Dichloropropene	ND	ND	Chloroform	0.001	0.013
1,1,1,2-Tetrachloroethane	ND	ND	Chloromethane	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	Dibromochloromethane	0.0023	0.0042
1,1-Dichloroethane	ND	ND	Dibromomethane	ND	ND
1,2,3 – Trichlorobenzene	ND	ND	Dicamba	ND	ND
1,2,3 – Trichloropropane	ND	ND	Dichlorodifluoromethane	ND	ND
1,2,4 – Trimethylbenzene	ND	ND	Dieldrin	ND	ND
1,3 – Dichloropropane	ND	ND	Hexachlorobutadiene	ND	ND
1,3 – Dichloropropene	ND	ND	Isopropylbenzene	ND	ND
1,3,5 – Trimethylbenzene	ND	ND	M-Dichlorobenzene	ND	ND
2,2 – Dichloropropane	ND	ND	Methomyl	ND	ND
3-Hydroxycarbofuran	ND	ND	MTBE	ND	ND
Aldicarb	ND	ND	Metolachlor	ND	ND
Aldicarb Sulfone	ND	ND	Metribuzin	ND	ND
Aldicarb Sulfoxide	ND	ND	N - Butylbenzene	ND	ND
Aldrin	ND	ND	Naphthalene	ND	ND
Bromobenzene	ND	ND	N-Propylbenzene	ND	ND
Bromochloromethane	ND	ND	O-Chlorotoluene	ND	ND
Bromodichloromethane	0.0012	0.0066	P-Chlorotoluene	ND	ND
Bromoform	0.0010	0.0016	P-Isopropyltoluene	ND	ND
Bromomethane	ND	ND	Propachlor	ND	ND
Butachlor	ND	ND	Sec - Butylbenzene	ND	ND
Carbaryl	ND	ND	Tert - Butylbenzene	ND	ND
Chloroethane	ND	ND	Trichlorfluoromethane	ND	ND

The Town of Malvern - Water Department
strives to provide a dependable and safe supply of
water to all consumers.

As you can see by the table, our system had no violations of allowable limits of contaminants in your drinking water. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

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

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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. Malvern Water Department 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>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer un-

dergoing 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 and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791). All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk.

Malvern Water Department also tests for disinfection byproducts in your water, such as trihalomethanes and haloacetic acids. Disinfection byproducts are contaminants that develop when chlorine breaks down over an extended period. All test results were well within state and federal standards.

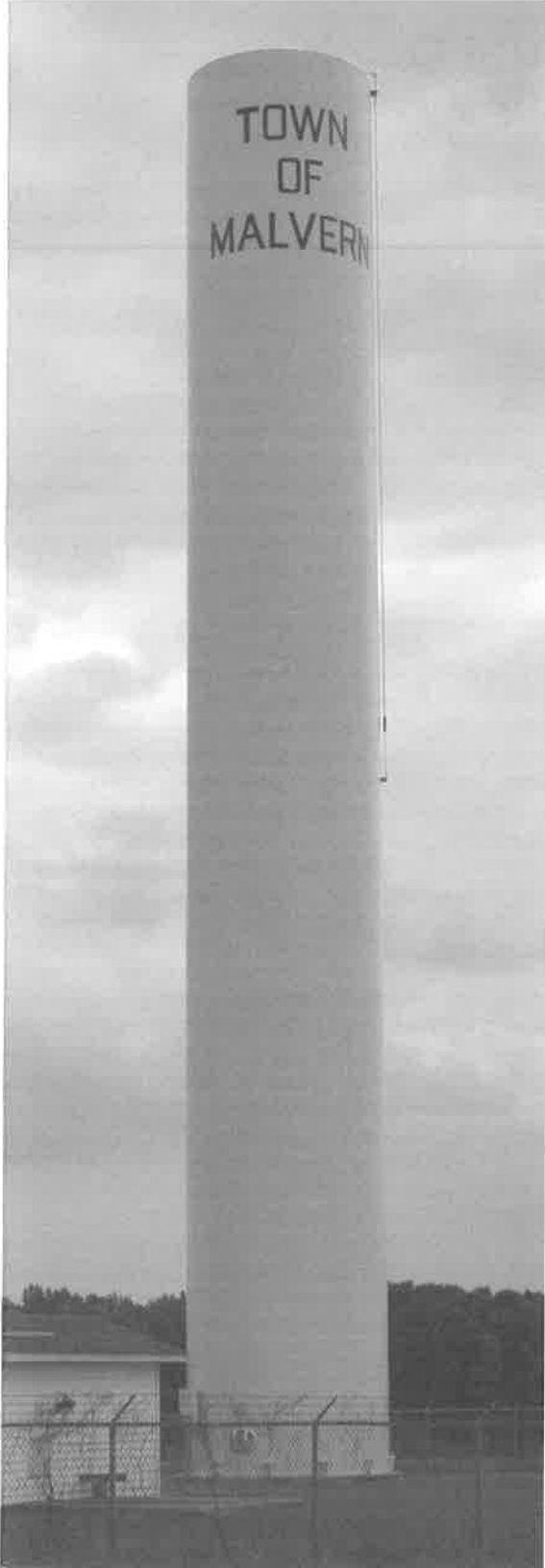
Based on a study conducted by ADEM with the approval of the EPA a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants is not required.

Malvern Water Department strives to provide a dependable and safe supply of water to all consumers. We ask that you be considerate when accidents or Mother Nature hinder our efforts to supply your water. Being a small community system, we would like to ask our customers to please be vigilant in reporting any suspicious activity around the wells or tanks. Regardless of the time, or weather, water works personnel are on call and working to keep your water flowing. Please remember to practice water conservation and help us preserve our water sources, which are a vital part of our lives, and our children's future.

Town of Malvern

Tom Vickers, Mayor	Carl R. Marsh
Emily Snellgrove	Jesse Scott
Jamie Conner	Lance Tucker
Louise Couture, Clerk	

TOWN OF MALVERN - WATER DEPARTMENT
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report**

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