

2018 Annual Water Quality Report South Twin Lakes PWS# 170025



We are pleased to present to you this year's Annual Water Quality Report. We want to keep you informed about the quality water and services we deliver to you everyday. Our goal is to provide you with a safe and dependable supply of drinking water.

South Twin Lakes Consumer Confidence

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The City of Horn Lake vigilantly safeguards the water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Where does my water come from?

In 2018 our water department distributed 33,752,880 gallons of water to our customers. Our water is groundwater pumped from a natural underground aquifer, the Sparta Aquifer. The water is drawn by wells.

Do I need to take special precautions?

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 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/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 Water Drinking Hotline (800-426-4791).

Source water assessment and its availability

Source Water Assessment Program was conducted by the Department of Environmental Quality under contract from the Mississippi Department of Health. Some water was sourced from 170022 (The City of Horn Lake). For information on this source, please contact The City of Horn Lake, Jay Williams, Interim Director of Operations, at 662-342-7099 or by writing to The City of Horn Lake in c/o of Utility and Sanitation Department, 3101 Goodman Road West, Horn Lake, MS 38637. The results of the report are available at:

<http://landandwater.deq.ms.gov/swap/reports/report.aspx?id=0170022>

The susceptibility assessment ranking for each well is:

-PWS ID: 170025, Source ID: 1, Susceptibility: Higher

Conservation Tips

- Repair household leaks.
- Use water saving shower heads, faucets, toilets and appliances.
- Wash only full loads of clothes or dishes.

Additional Information for 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. The City of Horn Lake 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>. The Mississippi State Department of Health Public Health Laboratory offers lead testing for \$10 per sample. Please contact 601.576.7582 if you wish to have your water tested.

Why are there contaminants in my drinking 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 (EPA) 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Microbial contaminants, such as viruses and bacteria that 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, urban stormwater runoff, and residential uses. 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. 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

*The number of months in the previous calendar year in which average fluoride sample results were within the optimal range of 0.6-1.2 ppm was 5. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6-1.2 ppm was 71%.

Contact Us

If you have any questions about this report or concerning your water utility, please contact Jay Williams, Interim Director of Operations, at 662-342-7099, or by writing to the following address: City of Horn Lake in c/o of Utility and Sanitation Department, 3101 Goodman Road West, Horn Lake, MS 38637. If you want to learn more, please attend any of our regularly scheduled meetings on the 1st and 3rd Tuesdays of each month, at 6:00 P.M., in City Hall at 3101 Goodman Road West.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of 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 in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	MCLG	MCL, TT, or	Your Water	Range		Sample Date	Violation	Typical Source
	or MRDLG	MRDL		Low	High			
Inorganic Contaminants								
Cyanide [as Free Cn] (ppb)	200	200	< 15	< 15	< 15	2014	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Antimony (ppb)	6	6	< 0.50	< 0.50	< 0.50	2015	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppb)	0	10	< 0.50	< 0.50	< 0.50	2015	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2	2	0.018	0.018	0.018	2015	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Beryllium (ppb)	4	4	< 0.5	< 0.5	< 0.5	2015	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries.
Cadmium (ppb)	5	5	< 0.5	< 0.5	< 0.5	2015	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints.
Chromium (ppb)	100	100	< 0.8	< 0.8	< 0.8	2015	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride (ppm)*	4	4	< 0.1	< 0.1	< 0.1	2015	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Mercury [Inorganic] (ppb)	2	2	< 0.5	< 0.5	< 0.5	2015	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
Selenium (ppb)	50	50	< 2.5	< 2.5	< 2.5	2015	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium (ppb)	2	2	< 0.5	< 0.5	< 0.5	2015	No	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.
Nitrate [measured as Nitrogen] (ppm)	10	10	0.35	< 0.08	0.35	2017	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen] (ppm)	1	1	< 0.02	< 0.02	< 0.02	2017	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Copper (ppm)	1.3	1.3=AL	0.2	All sites below AL		2016	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb)	0	15=AL	1.0	All sites below AL		2016	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Chlorine ² (ppm)	MRDLG = 4	MRDL=4	1.20	0.90	1.30	2018	No	Water additive used to control microbes.
Haloacetic Acids (HAA5) (ppb)	NA	60	10.0 (HAA5)	10.0	10.0	2017	No	Byproduct of drinking water chlorination.
Total Trihalo-Methane (ppb)	0	80	7.02 (TTHM)	5.99	7.02	2017	No	Byproduct of drinking water chlorination.



Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L).
ppb	ppb: parts per billion, or micrograms per liter (µg/L).
NA	NA: not applicable.
ND	ND: Not detected.
NR	NR: Monitoring not required but recommended.
Important Drinking Water Definitions	
Term	Definition
MCLG	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	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variance and Exemption	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	Maximum residual disinfection level goal. 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.
MNR	MNR: Monitored, Not Regulated.
MRDL	Maximum Residual Disinfection 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 contaminants.
MPL	MPL: State Assigned Maximum Permissible Level.