

Dyersburg Water System's Annual Water Quality Report-2011

The City of Dyersburg's Annual Water Quality Report is designed to inform its water customers about the quality of its drinking water and about services provided to our customers. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water sources. We are committed to ensuring the quality of your water.

Is my drinking water safe?

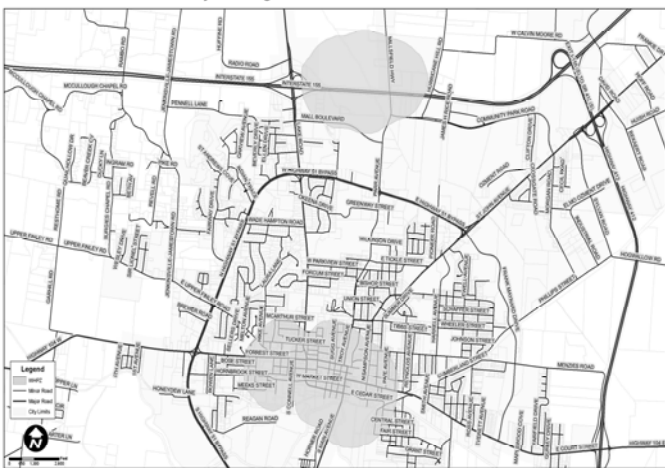
YES! Dyersburg's water meets all of EPA's health standards. As you can see in the chart on the next page, we detected only 8 contaminants, and found all of those contaminants to be at safe levels.

What is the source of my water?

Your water comes from a supply of 7 wells located within the city limits. All of the wells are over 600 feet deep and draw water from the Memphis Sand Aquifer. The Roger Hawkins Water Treatment Plant can provide up to 6 million gallons of water a day and the South Main Plant can provide up to 5 million gallons of water a day.

The City Of Dyersburg has a wellhead protection plan that is available upon request. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water supply to contamination. The Tennessee Department of Environment and Conservation (TDEC) have prepared a Source Water Assessment Program (SWAP) Report for the water supplies serving water to this water system. The SWAP Report assesses the susceptibility of public water supplies to potential contamination. Water sources have been rated as reasonably susceptible, moderately susceptible or slightly susceptible based on geologic factors and human activities in the vicinity of the water source. The Dyersburg Water System sources rated as reasonably susceptible to potential contamination.

Dyersburg Wellhead Protection Zone



An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at www.tn.gov or you may contact the Dyersburg Water System or TDEC at 1-888-891-TDEC to obtain copies of specific assessments.

Why are there contaminants in my 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 Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoir, 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 human activity.

Contaminates that may be present in source water:

- * 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, 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 also can 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 and the Tennessee Department of Environment and Conservation prescribe regulations which limit 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.

For more information about your drinking water, please call (731) 288-0724 or go online at www.dyersburgtn.gov and click on Water Treatment Department.

Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.

How can I get involved?

The Dyersburg Board of Mayor & Aldermen meet the 1st & 3rd Monday night of each month at 7:00 p.m. in the Municipal Court Building. The public is welcome to attend these meetings. Please call 731-288-7600, if you wish to be placed on the agenda.

Is our water system meeting other rules that govern our operations?

Yes. To ensure safe drinking water, the Tennessee Dept. of Environment and Conservation and the Environmental Protection Agency require water systems to regularly analyze the water and report results. The TDEC inspects the Dyersburg Water System. This inspection is called a sanitary survey. The Dyersburg Water System scored **98** in September 2009. Copies of these reports are kept on file at the water plant.

Concerned about Lead in your Water?

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 Dyersburg 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 drinking water, you may wish to have it 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://epa.gov/safewater/lead>.

Facts About Lead In Your Water

- * Lead is a naturally-occurring metal that for most of the 20th century was used regularly as a component of paint, piping (including water service lines), solder, brass, and until the 1980's as a gasoline additive. We no longer use lead in many of these products, but older products—such as paints and plumbing fixtures in older houses— that contain lead remain. EPA and the U.S. Centers for Disease Control (CDC) report the lead paint (and the contaminated dust and soil it generates) is the leading source of lead exposure in older housing.
- * While lead is rarely present in water coming from a treatment plant, it can enter tap water through corrosion of some plumbing materials.
- * A number of aggressive and successful steps have been taken in recent years to reduce the occurrence of lead in drinking water.
 - * In 1986, Congress amended the national Safe Drinking Water ACT to prohibit the use of pipe, solder or flux containing high levels of lead.
 - * The Lead Contamination Control Act of 1988 led schools and day-care centers to repair or remove water coolers with lead-lined tanks. EPA provided guidance to inform and facilitate their action.
- * Since the implementation of the Lead and Copper Rule (1991), many community drinking water systems are required to actively manage the corrosiveness of water distributed to customers. In addition, community water systems conduct routine monitoring at selected houses where lead service line and lead solder exist. If more than 10 percent of the homes tested have elevated lead levels (defined as more than 15 parts per billion), water providers must notify their customers via several means. They must also take steps to reduce the problem, including improving corrosion control and possibly replacing lead service lines that contribute to lead contamination.
- * You can't see, smell or taste lead in your water. Testing at the tap is the only way to measure the lead levels in your home or workplace. If you choose to have your tap water tested, be sure to use a properly certified laboratory. Testing usually costs between \$20 and \$100.

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 under-gone 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 their personal sanitation, food preparation, handling infants and pets, and 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 (800-426-4791).

Dyersburg Cross Connection Program

The Dyersburg Cross Connection Program was developed to inform the public of the dangers of cross connections, to identify possible cross connections, to insure that cross connection control devices are installed where needed and to protect our drinking supply.

What is a Cross Connection?

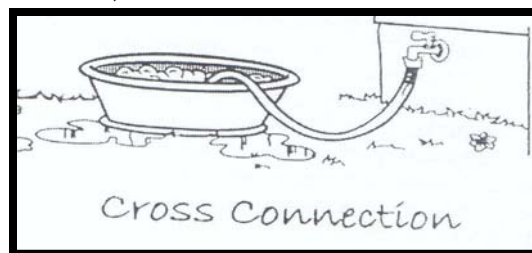
A cross connection is a permanent or temporary piping arrangement which can allow your drinking water to be contaminated if a backflow condition occurs.

What is a backflow?

A backflow is where water is flowing in the opposite direction from its normal flow. This can happen when pressure drops in the distribution system. Backflow can allow contaminants to enter our drinking water system through cross connections.

Where can cross connections be found?

Cross connections can be found in homes, farms, laboratories, small businesses, and factories.



What are some common fixtures likely to have cross connections?

Garden hoses	Dishwashers
Car Wash	Sewage pumps
Sprinkler systems	Boilers
Pesticide Mixing Tanks	Sinks

Why should I be worried about backflows?

Backflows due to cross connections can cause sickness and/or chemical contamination.

Can backflows be avoided?

Yes. Each spigot at your home should have a hose-bibb vacuum breaker installed. Businesses and factories should have reduced-pressure-backflow preventers, double check-valve assemblies or vacuum breakers installed.

What has the City done to help prevent backflows?

All high hazard areas in Dyersburg already have backflow preventers installed.

For more information on cross connection control and backflow prevention for your home or business, please call 731-288-7632.

City of Dyersburg Flushing Program

The purpose of the flushing program is to provide a safe high quality water supply to the customers of the City of Dyersburg Water System. Debris can enter and accumulate in a water distribution system. Disinfectant residuals can deplete due to low usage and disinfectants may combine with materials in the system to form undesirable byproducts. Each of these situations may be corrected by an adequate flushing program.

The insurance service office recommends that all fire hydrants be flushed annually and be checked for adequate pressure, flow, and working condition. Hydrants that are not in working condition, are marked out of service.

2010 Water Quality Data

What does this chart mean?

MCLG: Maximum Contaminant Level Goal, or 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, or 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.

MRDLs: Maximum Residual Disinfectant Levels or a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.

MRDLG: Maximum residual disinfectant 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 benefit of the use of disinfectants to control microbial contaminants.

Contaminant	MCLG MRDL	MCL MCLG	Level Found	Units	Range of Detections	Violation	Date of Sample-	Typical source of Contaminant
Microbiological Contaminants								
Total Coliform Bacteria*	0	<2	1	Positive Samples	0-2	NO	2010	Naturally present in the environment
Inorganic Contaminants								
Copper**	1.3	AL=1.3 ppm	90th Percentile =0.026	ppm		NO	2008	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride	4	4 ppm	0.97	ppm	0.84-1.10	NO	2010	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Chlorine	4	4 ppm	1.61 Avg	ppm	0.70-2.6	NO	2010	Drinking water disinfectant
Lead**	0	AL=15 ppb	90th Percentile =0.50	ppb		NO	2008	Corrosion of household plumbing systems; Erosion of natural deposits
Volatile Organic Contaminants								
TTHMs (Total Trihalomethanes)	0	80 ppb	16.4 Avg	ppb	1-17	NO	2010	By-Product of drinking water chlorination
HHA5'S (Total Haloacetic Acids)	0	60 ppb	2.2 Avg	ppb	0-1	NO	2010	By-Product of drinking water chlorination
Miscellaneous Compounds								
Sodium	N/A	N/A	10.9 Avg	ppm		NO	2009	N/A

***Microbiological Contaminants:** 458 samples were analyzed for bacteria and 1 test was positive. 4 repeat samples were collected and all samples were negative.

****Lead & Copper:** We had 0 out of 30 sites exceed the action level for lead and 0 sites exceed the copper action level.
Iron: Occurs naturally in our raw water and occasionally accumulates in the distribution system. Iron shows up as "red" or "rusty" water at your tap. Although you do not want to drink water that is not clear, iron is not considered to be a hazard to your health. We test for iron daily and it is usually less than 0.1 ppm. The aesthetic limit for iron is 0.3 ppm.

Turbidity: Turbidity does not present any risk to your health. We monitor turbidity, which is a measure of the cloudiness of water, because it is a good indicator that our filtration system is functioning properly.

Abbreviations: **PPB:** parts per billion or micrograms per liter. **ppm:** parts per million or milligrams per liter. **N/A:** not applicable. **NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water. **MFL:** million fibers per liter, used to measure asbestos concentration. **AL:** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. **TT:** Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

About the data: Most of the data presented in this table is from testing done between 1 Jan - 31 Dec 2010. We monitor for some contaminants less than once per year, and for those contaminants, the date of the last sample is shown in the table.