

*For The Year 2007*  
*Annual Drinking Water Quality Report*



**THIS OSPREY, IN HER AERIE, NESTS ATOP A TELEPHONE POLE AT THE WATER TREATMENT PLANT EVERY YEAR**

# La Vergne Water System Water Quality Report 2007

## Is my drinking water safe?

Yes, our water meets all of EPA's health standards. We have conducted numerous tests for over 80 contaminants that may be in drinking water. As you'll see in the chart on the back, we only detected 10 of these contaminants. We found all of these contaminants at safe levels.

## What is the source of my water?

Your water, which is surface water, comes from the Percy Priest Lake. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to **potential**

contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. The SWAP Report assesses the susceptibility of untreated water sources to **potential** contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. 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 La Vergne Water System sources rated as reasonably susceptible to potential contamination.

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](http://www.state.tn.us/environment/dws/dwassess.shtml) at [www.state.tn.us/environment/dws/dwassess.shtml](http://www.state.tn.us/environment/dws/dwassess.shtml) or you may contact the Water System 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. Community water systems are required to disclose the detection of contaminants; however, bottled water companies are not required to comply with this regulation. 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).

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

**For more information about your drinking water, please call Thomas Champagne at 615-793-6536.**

## How can I get involved?

Our Mayor/Aldermen meeting are scheduled for the last Thursday at 5pm and first Tuesday at 7pm of each month. Please feel free to participate in these meetings.

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

The State and EPA require us to test and report on our water on a regular basis to ensure its safety. Results of unregulated contaminant analysis are available upon request. We want you to know that we pay attention to the rules.

## Other Information

Due to all water containing dissolved contaminants, occasionally your water may exhibit slight discoloration. We strive to maintain the standards to prevent this. We at La Vergne Water System work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

## 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 not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets 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).

## Water System Security

Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities, including treatment plants, pumping stations, tanks, fire hydrants, etc. to 615-793-6536.



# 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. 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.
- **MRDL** - Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
- **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 benefits of the use of disinfectants to control microbial contaminants.
- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.
- Parts per million (ppm) or Milligrams per liter (mg/l) – explained in terms of money as a single penny in \$10,000.
- Parts per billion (ppb) or Micrograms per liter (µg/l) - explained in terms of money as one a single penny in \$10,000,000.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **TT** - Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	2	0-2	2007	# of positive samples	0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity <sup>1</sup>	No	.94	.05-.94	2007	NTU	n/a	TT	Soil runoff
Copper	No	0.33		2005	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	.94	.71-.94	2007	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	No	0.0025		2005	ppm	0	AL=0.015	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	25		2007	ppm	n/a	N/A	Erosion of natural deposits; used in water treatment
TTHM <sup>2</sup> [Total trihalomethanes]	No	77.6	19.8-159	2007	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	33.5	14.1-55.2	2007	ppb	n/a	60	By-product of drinking water disinfection.
Total Organic Carbon <sup>3</sup>	No	2.1		2007	ppm	TT	TT	Naturally present in the environment.
Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MRDLG	MRDL	Likely Source of Contamination
Chlorine	No	1.9Avg.	0.5-2.9	2007	ppm	4	4	Water additive used to control microbes.

During the most recent round of Lead and Copper testing, no samples exceeded the action levels.

<sup>1</sup> We met the treatment technique for turbidity in 2007 with a least 95% of samples being less than 0.3 NTU.

<sup>2</sup> Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

<sup>3</sup> We met the treatment technique requirement for Total Organic Carbon in 2007.

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

## **Monitoring Violations for La Vergne Water System**

During 2007, we had four monitoring and reporting violations as listed below. Although this situation does not require that you take immediate action, as our customers, you as a customer have a right to know what happened, what you should do and what was done to correct this situation.

1. In July 2007, during a planned calibration of our in-line combined turbidimeter, we failed to sample for combined turbidity every 15 minutes as required.
2. In October of 2007, we incorrectly reported the turbidity levels on our monthly operation report.
3. In October of 2007, we incorrectly coded 3 repeat bacteriological samples as (D) distribution samples instead of (R) repeat samples.
4. In December of 2007, we only collected 1 repeat sample instead of 3 samples as required.

**What should I do?** You do not need to do anything at this time as these were not maximum contaminant level violations. All samples taken during 2007 met the required limits

### **What happened and what is being done.**

1. We did not monitor turbidity levels as required. We have reviewed our monitoring procedures with the Division of Drinking Water and made sure all personnel involved in monitoring turbidity level understand the requirements to ensure this does not happen in the future.
2. Our SCADA system monitors turbidity levels in 1 minute intervals. Our chart recorder records levels every 15 minutes. We incorrectly reported on our monthly operations report a lower level for turbidity taken from our chart recorder. We have changed our reporting procedures to report which level is highest from either our SCADA system or our chart recorder. All levels measured on either the chart recorder or SCADA system met turbidity level limits.
3. We took three repeat samples as required following a positive bacteriological sample. However these samples were incorrectly coded. All repeat samples were negative and the original sample was positive for total coliform which is simply an indicator organism but was negative for E-Coli which is a health concern. This was not a violation of the Maximum Contaminant Level requirement which could be a health concern. This was a reporting error only. We have reviewed our coding procedures to ensure all samples are correctly coded.
4. Following a positive total coliform testing result we are required to take three repeat samples. In December of 2007 we only took one repeat sample. The results were negative but we did not take the required number of samples. Again we have reviewed our procedures to make sure we take the required number of samples.

Please share this information with all other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For information, please contact Thomas Champagne at (615) 793-6536

This notice is being provided by La Vergne Water System.

State Water System ID# 0000386

## WHAT IS A CROSS-CONNECTION?

**A cross-connection** is any connection between a potable water system and any source of contamination through which the contamination could enter the potable water system.

## WHAT IS A BACKFLOW?

**Backflow** is the flow of any water, foreign liquid, gas or other substance back into the potable water system. There are two conditions that can cause a backflow: **backpressure** and **backsiphonage**.

**Backpressure** is where the foreign substance is forced into the water system because it is under a higher pressure than the system pressure.

**Backsiphonage** is where the system pressure is less than atmospheric (i.e., It is under a vacuum), and the foreign substance sucked into the water system.

## WHAT CAUSES A BACKFLOW?

There are several conditions that can cause a backflow, but the two most common are main breaks and fire hydrants being used.

## HOW ARE CROSS-CONNECTIONS?

Homes and businesses are designed and built with measures to eliminate cross-connections. The most effective method is an **air gap**. An air gap is where the water outlet is separated from the contaminated substance by a space of air. We see these every day in your sinks and bathtubs. Here the facet is several inches above the sink or tub so that even if it runs over it can not get in the facet.

In cases where an air gap is not possible, a mechanical backflow device is installed between the potable water and the contaminated substance. There are a number of different types of these devices from reduced-pressure-zone to vacuum breakers.

## HOW CAN THIS EFFECT ME?

In the home, we can create a cross-connection without even knowing that it is happening. We have all seen, if not have, the shower heads with flexible line. If while you are using it you set it in the water while you do some else, you have made a cross-connection. If a backflow was to occur at that time, the bathwater could be drawn back into your plumbing.

Another common method of creating a cross-connection is with a garden hose. You should never let the end of the hose become submerged. When filling anything, ensure that the end of the hose is at least twice the internal diameter of the hose, but no less than one (1) inch above the surface.

Also, anytime you attach something (with a foreign substance in it) to a hose, you have made a cross-connection. These include such items as a canister to dispense soapy water for washing car or canisters with bug and weed killing chemicals in them. Any of these things could get back into your pipe, and the potable water system and do a lot of harm.

One way to help protect yourself, and others, is to ensure that all of the outside facets are equipped with vacuum breakers.

## WHY IS THERE SOMEONE FLUSHING THE FIRE HYDRANTS IN MY NEIGHBORHOOD?

The La Vergne Water System along with the La Vergne Fire Department will be flushing the fire hydrants in your neighborhood regularly. This will prevent the build-up of mineral deposits and to better regulate chlorine residuals in the system. The Fire Department will be flow testing the hydrants as a part of their annual testing.

La Vergne Distribution will be continuing its efforts developing the flushing program in 2008 to what is termed as a "Unidirectional Flushing Program". The implementation of this program will assist in providing the System's customers with a much better water quality at the tap.

## PRESSURE REGULATOR VALVES

Pressure regulators are installed in homes to keep the pressure  $\leq$  to 60 psi. If the pressure in the home it can rupture lines. Most regulators are pre-set to 45 to 50 psi.



The pressure regulator is the first valve found after the water meter. In older homes it is normally under the house where the water line enters. In newer home it is usually found in an underground box just after the water meter box.

When the supply line pressure exceeds 60 psi, an approved pressure reducing valve and strainer should be installed on the supply line in order to keep the pressure at 50 psi or lower. Sillcocks and outside faucets may be left on the full main pressure at the option of the owner.

The pressure reducing valve is spring loaded. It remains open until the pressure in the home reaches a set level. Then it closes and remains closed until the pressure in the home begins to drop.

It is typically made of bronze with a union inlet connection. It can handle pressure up to 300 psi.

to adjust the device, loosen the set nut on the top bolt, turn the bolt clockwise to reduce pressure and counter clockwise to increase pressure.

**NOTE: ALL LINES AND VALVES AFTER THE METER ARE THE OWNERS RESPONSIBILITY.**

## FLUSHING YOUR HOT WATER HEATER

In order to prolong the life of your hot water heater it should be flushed once a year. Sediment consisting sand and mineral deposits can build up over time which can reduce the amount of water in the heater, and reduce the efficiency of the unit.

**TURN OFF THE HEATER**—For gas units, set the gas valve to pilot. For electric units turn off the circuit breaker.

Connect a garden hose to the drain at the bottom of the unit.

**CAUTION: MAKE SURE THAT THE END OF THE HOSE IS AWAY FROM PEOPLE AND PETS, IT CAN SCALD QUICKLY.**

Close the cold water shut off valve.

Carefully open the temperature/pressure valve on the top of the unit, leave open.

Open the drain valve. If sediment is clogging the drain valve, close the temperature/pressure valve, open the cold water shut off valve, and power flush.

When the hose runs clear you are finished.

Close the drain valve and remove the hose.

Close the temperature/pressure valve and open cold water shut off valve.

Open a hot water faucet in your house, and let it run until the air bubbles are out.

Turn the heater back on.

# A Message from your Mayor And the Water Plant Manager

Ronnie Erwin  
Mayor of La Vergne

In the past 35 years, La Vergne has grown from a sleepy little town to a bustling city. We have grown from about 5,000 people in 1972 to nearly 27, 000 people today.

In order to keep up with the growth in the city, the infrastructure must be continually improved. Last year, the new five-million gallons-a-day (mgd) water plant expansion was completed, bring the total to 10 mgd. With the city growing as it is, this will ensure that we will be able to deliver quality water to your home.

While some of the improvements within the city as visible such as improved roads, others are not. But all of them are important. All of the projects will continue to improve the quality of life for you and your family and will make La Vergne a great place in which to live.

Thomas Champagne  
Water Plant Manager

Severn Trent Services started their contract with the City of La Vergne on February 1, 2007. We value high performance, hard work, honesty, and teamwork. And we hold ourselves accountable to the highest standards of ethics, trust, and quality.

Our corporate vision is to be at the forefront of the environmental services industry. Our corporate values of environmental leadership, service and quality define our business culture and strategic direction.

We believe that business is a part of the process of achieving a sustainable future for society as a whole.

The past year at the Water Treatment Plant we have undergone several changes to better the quality of the water, and to maintain the ever growing population of our City. Everyone that I have met here in the La Vergne area has extended the southern hospitality that I have been a custom to for forty something years. From Louisiana to Tennessee "Laissez les bons temps rouler!" (Let the good times roll)

I started in Water Treatment in 1984 and have greatly learned and appreciate the importance of quality drinking water.

I believe the City of La Vergne can be ensured the water is safe to drink and in plentiful supply.

**If you have any questions or concerns about your drinking water, you may call the Water Treatment Plant at 793-6536. You may also attend the Mayor/Aldermen meetings.**

**The Mayor/Alderman Board Meetings are held  
on the first Tuesday of each month at 7:00 PM. at City Hall**

La Vergne Water Treatment Plant  
700 Bon Aqua Drive  
La Vergne, Tennessee 37086  
www.lavergne.org

**STANDARD  
PRE-SORTED  
U.S. POSTAGE  
PAID**  
La Vergne, Tn.  
Permit No. 1

**ECR-WSS  
CURRENT RESIDENT**

WHAT IS IN YOUR DRINKING WATER?  
HERE IS THE ANSWER!

