

# City of Valdosta 2007 Water Quality Report

Water System I.D. No 1850002



## Mission Statement

To be known by our customers for delivery of the highest quality municipal utility services possible through continuous improvement.

## Customer Service Numbers

Utility Billing.....(229) 259-3556  
Water Issues.....(229) 259-3592  
Sewer Issues.....(229) 259-3592  
Stormwater Issues..(229) 259-3592  
Sanitation Issues.....(229) 259-3599  
After hours..... (229) 333-1832

Safe Drinking Water Hotline  
(800) 426-4791

To learn more about water conservation or drought, please visit:

[www.conservewatergeorgia.net](http://www.conservewatergeorgia.net)

[www.caes.uga.edu/topics/disasters/drought](http://www.caes.uga.edu/topics/disasters/drought)

[www.gaepd.org](http://www.gaepd.org)



[www.valdostacity.com](http://www.valdostacity.com)



## Providing Safe Water

During calendar year 2007, the City of Valdosta Utility Department remained in compliance with all Drinking Water Standards and has provided safe, clean, good tasting water for all of our customers. The purpose of this Water Quality Report is to inform our customers about where their water is obtained, how it is treated and how it compares to the Standards set by the regulatory agencies.

Tests results for water samples collected and analyzed are provided in the Water Quality Data Table, located later in this report. The report also includes required health effects information regarding the use of water. The Data Table provides information only for those items that are regulated by the Environmental Protection Agency (EPA) and whose presence was detected in representative system samples. For example, the dental profession recommends that fluoride levels of about 1.00 ppm (mg/l) are good for dental health and the City of Valdosta Water Treatment Plant adds fluoride to achieve the recommended level as shown in the table. However, EPA regulates fluoride and requires that the concentration of fluoride in drinking water not exceed 4.0 ppm. The list of parameters and their concentration level in the table is not an indication of a problem unless a violation is noted. The City analyzes hundreds of samples for many

parameters, some hourly, some daily, and others on a quarterly basis. These samples are collected throughout the system as a part of quality control of the treatment process. Groundwater will always contain trace amounts of dissolved limestone or calcium as well as iron and other elements. The City of Valdosta finished water contains some sodium, phosphates, fluoride and chlorine that have been added to improve the water quality.

During 2007, the construction of the water treatment plant upgrade was completed. The construction of the plant did not cause any interruption of service to its customers. This upgrade was undertaken in response to a desire to improve efficiency of the system as well as the inevitable need to increase system capacity from the 15 million gallons per day (MGD) plant to the capacity of 22.5 MGD. It is expected that operation of the new plant will produce a more cost effective end product.

The Utility Department continues to receive recognition each year for its efforts to provide safe water to its customers. The system has received numerous awards of excellence of operations from the U.S. EPA, Georgia EPD, and the Georgia Association of Water Professionals. The City's rates for water and sewer charges remain lower than more than 100 other systems of all sizes in Georgia despite

*Continued on page 2*

# Valdosta's Water Source

The City of Valdosta obtains its water supply from wells that are drilled into an underground layer of porous, water bearing limestone known as the Upper Floridan Aquifer. This limestone layer lies under most of South Georgia and all of Florida. Generally, the aquifer is able to provide a prolific supply of good clean water. In Valdosta, the top of the aquifer lies approximately 200 feet below ground surface and the City's wells are drilled

an additional 200 feet into the limestone.

The Upper Floridan Aquifer in the area of Valdosta and Lowndes County is known as a karst aquifer. This is an aquifer that has cracks, underground solution channels, and caverns. These cracks can provide a route to allow contaminants to enter the aquifer, move about in the aquifer, alter the water supply, and can cause special challenges for the City's water system.

Just north of the City of Valdosta, one of these cracks is located beneath the Withlacoochee River. The under-ground crack has formed a sinkhole in the streambed of the flowing river. The river loses about 20 cubic feet per second (cfs) during the wet season and 2 cfs during the dry season to the aquifer below the sinkhole. The surface water contains tannic acids and organics from vegetation growing along the river. This mixture of water and organics causes a unique situation for all

users of the Upper Floridan Aquifer in this area.

The Valdosta Water Treatment Plant and its well field with eight wells is located a few miles northeast of the City and several miles away from the sinkholes that open into the aquifer. The water in the aquifer moves very slowly through the limestone and measurements have shown the travel time from the sinkhole to the well field to be as much as 75 years. However, the water from the wells does contain some of the organic material as well as naturally occurring sulfides, iron and manganese from deposits scattered throughout the aquifer.

The City Of Valdosta Groundwater Withdrawal Permit, which allows the City of Valdosta to take water from the aquifer and distribute it to its customers, was renewed in December 2002. The renewed permit from the Environmental Protection Division of the Department of Natural Resources allows the withdrawal of an average of 11.4 million gallons per day (MGD), annual average daily flow (AADF), and a maximum month daily flow (MMADF) of 15.3 MGD. At the present time, the City's AADF is 9.469 MGD and MMADF is 11.753 MGD.



The City of Valdosta Utilities Department accomplished significant improvements to the Water Treatment Plant and celebrated with a ribbon cutting ceremony on Sept. 13, 2007. The improvements allow the City to continue to offer our citizens the best water quality—an ISO class 1 rating—at the lowest cost while preparing for the growth that we expect to occur over the next 10 to 20 years.

## Providing Safe Water

*Continued from page 1*

the cost of the state of the art treatment facility.

During the year 2008, the City of Valdosta Utility Department will commence the construction of an additional transmission route. The construction of the new route will resume upon completion of the hydraulic modeling that began during the previous year. The new route will include about six miles of new network as well as a new water tower. The new water tower will be instrumental in providing adequate storage with regard to high quality fresh water. This is achieved by sitting the new tank at a

strategic location determined by the hydraulic modeling of the system. In addition to the new transmission line, the City of Valdosta Utility Department is working on rehabilitating an existing groundwater well as well as installation of at least three new groundwater wells to increase system capacity.

If you need more information concerning your water supply or this report, please call Afsaneh Jabbar, Assistant Director of Utilities at (229) 259-3592. Our employees are happy to provide speakers and public education programs to the community concerning water as well as many other

environmental subjects and tours of the plant.



The high service pumps at the Water Treatment Plant pump water into the City's water distribution system .

# Drinking Water Analysis Table

## TABLE OF DETECTED CONTAMINANTS

INORGANIC CONTAMINANTS						
CONTAMINANT (units)	MCL	MCLG	Result [Range]	Violation?	Sample Date	Major Sources
Flouride, (ppm)	4.0	4.0	.76 [.41-1.15]	No	2007	Water additive that promotes strong teeth.
LEAD AND COPPER MONITORING						
CONTAMINANT(units)	MCL (AL)*	MCLG	90th Percentile Value [No. of samples exceeding AL]	Violation?	Sample Date	Major Sources
Copper, (ppb)	1300	0.0	210 / [zero]	No	2005	Corrosion of household plumbing systems
Lead, (ppb)	15	0.0	2.5 / [zero]			
VOLATILE ORGANIC CONTAMINANTS (REGULATED)						
CONTAMINANT (units)	MCL	MCLG	Result [Range]	Violation?	Sample Date	Major Sources
Total Trihalomethanes, (ppb)	80	0.0	73.0 [58.0 - 87.0]	No	2007	By-product of drinking water chlorination
Haloacetic Acids, (ppb)	60	0.0	27.0 [21.0 - 31.0]	No	2007	By-product of drinking water chlorination
MICROBIOLOGICAL CONTAMINANTS						
CONTAMINANT (units)	MCL	MCLG	Highest Monthly % of Positive Samples [Range]	Violation?	Sample Date	Major Sources
Total Coliform Bacteria (TC)	<5% positive samples during a monthly testing period	Zero positive samples during a monthly testing period	2.5% [0.0 - 2.5%]	No	2007	Coliform bacteria are naturally present in the environment
FREE CHLORINE RESIDUAL						
CONTAMINANT (units)	MCL (MRDL) *	MCLG (MRDLG)*	Result [Range]	Violations?	Sample Date	Major Sources
Free Chlorine, ppm	4.0	4.0	1.62 [.90 - 2.40]	No	2007	Chemical added for disinfection
OTHER CONTAMINANTS: RADIONUCLIDES						
CONTAMINANT, (units)	MCL	MCLG	Result	Violation?	Sample Date	Major Sources
*Alpha Emitters (pCi/L)	15.0	15.0	2 +/- 1	No	2000*	Erosion of natural deposits

**City of Valdosta Water System I.D. No. 1850002:** The table below lists all the drinking water contaminants that were detected during the 2007 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 - December 31, 2007. \*EPD requires the City 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. Some of the data, though representative of the water quality, is more than one year old. Samples were tested for many other contaminants that were not found in the water and therefore are not listed.

### Terms and Definitions of Abbreviations for Water Quality Data Table

**Contaminant:** Any natural or man-made physical, chemical, biological, or radiological substance or matter in water, which is at a level that may have an adverse effect on public health, and which is known or anticipated to occur in public water systems. 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 Valdosta Water System is responsible for providing high quality drinking water, but it 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>.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

**Maximum Contaminant Level (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

**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 microbiological contaminants.

**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.

**Action Level (AL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

**Total Trihalomethanes (TTHM's):** Four separate compounds (chloroform, dichlorobromomethane, dibromochloromethane, and bromoform) that form as a result of disinfection.

**Total Coliform Bacteria:** A group of bacteria commonly found in the environment. They are an indicator of potential contamination of water. Adequate and appropriate disinfection effectively destroys coliform bacteria.

**Result:** Annual average of analysis performed.

**ppm:** Parts per million or milligrams per liter.

**N/D:** Not detectable at testing limit.

**Disinfection:** A process that effectively destroys coliform bacteria.

**Treatment Technology:** A required process intended to reduce the level of a contaminant in drinking water.

**Range:** The lowest and highest result recorded for year.

**ppb:** Parts per billion

**N/a:** not applicable

**pCi/L:** Picocuries per liter (a measure of radiation).

# Determining the Health Effects of Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of 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 EPA's SAFE DRINKING WATER HOTLINE (800) 426-4791.

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. The EPA/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 (800) 426-4791.

The sources of drinking water (both bottled water and tap water) include aquifers, 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.

Contaminants that may be present in source water before we treat it include the following:

- 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.
- Pesticide 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 storm water 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 regulations establish limits for contaminants in bottled water which must provide the same protection for public health.



Environmental Protection Division Rob McDowell watches as Valdosta Lab Technician Tim Corbett analyzes a City water sample.

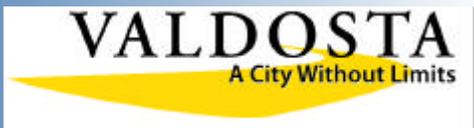
The City of Valdosta is committed to providing its citizens with safe, dependable tap water on a year-round basis and is proud to provide this water quality report.

### City Council

- |                     |                        |
|---------------------|------------------------|
| John J. Fretti      | Mayor                  |
| James R. Wright     | Councilman, District 1 |
| Willie T. Head, Jr. | Councilman, District 2 |
|                     | Mayor Pro Team         |
| Joseph Vickers      | Councilman, District 3 |
| Alvin Payton, Jr    | Councilman, District 4 |
| Tim Carroll         | Councilman, District 5 |
| Robert Yost         | Councilman, District 6 |
| John A. Eunice      | Councilman, At Large   |

### Editorial Staff

- |                  |                            |
|------------------|----------------------------|
| Larry H. Hanson  | City Manager               |
| Afsaneh Jabbar   | Asst. Utilities Director   |
| Semantha Mathews | Public Information Officer |
| Megan Dean       | Staff Intern               |



[www.valdostacity.com](http://www.valdostacity.com)

PRSRTSTD  
U.S. Postage  
PAID  
Permit No. 16  
Valdosta, GA