

City of Valdosta 2006 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

To learn more about water conservation, please visit:
www.conservewatergeorgia.net

Please visit the city of Valdosta's web site at:
www.valdostacity.com



Providing Safe Water

During calendar year 2006, the City of Valdosta Utility Department remained in compliance with all Drinking Water Standards as set by the Environmental Protection Agency (EPA) 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.

Test 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 EPA and whose presence was detected in representative system samples. For example, the dental profession recommends that fluoride levels of about 1.00 parts per million are good for dental health and we add fluoride to achieve this level as shown in the table. However, EPA regulates fluoride and requires that the amount in drinking water shall not exceed 4.0 ppm. Detection does

not indicate a problem unless a violation is noted. The City analyzes hundreds of samples for many parameters, some hourly, some daily, some quarterly. These samples are collected throughout the system as a part of quality control for the treatment process. Ground water will always contain trace amounts of dissolved limestone or calcium as well as iron and other elements. The City of Valdosta water contains some sodium, phosphates, fluoride and chlorine that have been added to improve the water quality.

The Water Treatment Plant witnessed tremendous activity during 2006. The City of Valdosta Utility Department continued to operate the plant without any interruption of service to its customers while the contractors worked throughout the plant to replace, upgrade, and renovate most, if not all, of the equipment and process. 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 a capacity of 22.5 MGD. It is expected that operation of the

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 Floridian 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 Floridian 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 and alter the water supply and can cause special challenges for the City's water system.

Just outside of the City of Valdosta, one of these cracks crosses

under the Withlacoochee River. The underground crack has opened to the ground surface and formed a sinkhole in the bottom of the flowing river. The river water constantly flows into the sinkhole and mixes with the water contained in the limestone. The 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 Floridian 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 Ground Water Withdrawal Permit, which allows the City of Valdosta to take water from the aquifer and distribute it to the City 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 Water Rights Permit has capacity for growth of the City.



The City of Valdosta Water Treatment Plant treated over 3 billion gallons of drinking water in year 2006.

Providing Safe Water

Continued from page 1

new plant will produce a more cost effective end product. The new system is expected to improve the water quality as it is pumped into the distribution system.

The Water Department continues to receive recognition each year for its efforts to provide safe water to the City's customers. The system has received numerous awards of excellence of operations from the US EPA, from Georgia EPD, and from 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 the cost of the state of the art treatment facility.

During 2007, the City of Valdosta Utility Department will undertake an ambitious plan to provide additional distribution capability to the system and will perform a comprehensive hydraulic modeling program to identify trouble areas within the distribution system. The department is in the process of installing a new water tower to help with more efficient distribution of water, new transmission line, rehabilitation of an existing groundwater well, and 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 Leon V. Weeks, Director of Utilities at (229) 259-3592. Our employees are more than happy to provide speakers and public education programs to the community concerning water as well as many other environmental subjects. Tours of the plant will be available as soon as the construction is completed during 2007.

Drinking Water Analysis Table

TABLE OF DETECTED CONTAMINANTS						
INORGANIC CONTAMINANTS						
CONTAMINANT (units)	MCL	MCLG	Result [Range]	Violation?	Sample Date	Major Sources
Fluoride (ppm)	4.0	4.0	.73 [.40 - 1.27]	No	2006	Water additive that promotes strong teeth.
LEAD AND COPPER MONITORING						
CONTAMINANT (units)	MCL (AL)*	MCLG	90th Percentile Value / [Number 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	71.0 [59.0 - 86.0]	No	2006	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	0.0	24.0 [16.0-45.0]	No	2006	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	3.75% [0.0 - 3.75%]	No	2006	Coliform bacteria are naturally present in the environment
FREE CHLORINE RESIDUAL						
CONTAMINANT (units)	MCL (MRDL)*	MCLG (MRDLG)*	Result [Range]	Violation?	Sample Date	Major Sources
Free Chlorine, (ppm)	4.0	4.0	1.68 [.58 - 2.14]	No	2006	Chemical added for disinfection
OTHER CONTAMINANTS: RADIONUCLIDES						
CONTAMINANT (units)	MCL	MCLG	Result	Violation?	Sample Date	Major Sources
Alpha Emitters (pCi/L)	15	15	2 +/-1	No	2000	Erosion of natural deposits

City of Valdosta Water System I.D. No. 1850002: The water quality data table above lists all the drinking water contaminants that were detected during the 2006 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 Jan. 1 - Dec. 31, 2006. *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.

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.

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 for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines to lessen the risk of infection by *Cryptosporidium* and other contaminants are available from the safe drinking water hotline.

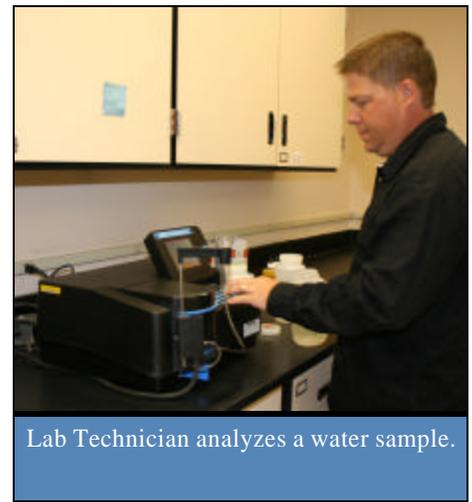
The sources of drinking water include aquifers, rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and in some cases, radioactive materials, and can pick up substances resulting from the presence of animal or 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 storm 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 storm water 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.

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 to provide the same protection for public health.

More information about contaminants and potential health effects can be obtained by calling the EPA's safe drinking water hotline at (800) 426-4791.



Lab Technician analyzes a 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
David J. Sumner	Councilman, District 5
Robert Yost	Councilman, District 6
John A. Eunice	Councilman, At Large

Editorial Staff

Larry H. Hanson	City Manager
Leon Weeks	Utilities Director
Afsaneh Jabbar	Assist. Utilities Director
Semantha Mathews	Public Information Officer
Bryant Cooley	Staff Intern

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