

2012 Annual Drinking Water Quality Report

City of Clewiston

Este informe contiene información muy importante. Puede obtener una copia de este reporte en Espanol en nuestra oficina localizada en 141 Central Avenue, Clewiston, Florida, o llame al (863) 983-1454.

We are very pleased to provide you with this year's Annual Quality Water Report. We want to keep you informed about the quality water and services we deliver to you every day. 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 resources. We are committed to ensuring the quality of your water.

This report is provided pursuant to Federal and State drinking water requirements. ***We are pleased to report that our drinking water exceeds all federal and state requirements.***

Your water source is City of Clewiston Reverse Osmosis Water Treatment Plant, which officially went on-line January 08, 2008. The plant draws ground water from the Floridan Aquifer. Water from this aquifer is of high quality and less vulnerable to pollutants which could be caused by runoff or surface water. This brackish water is drawn from (4) wells which are 1200 feet deep. The water is pumped to the treatment plant which is passed through micron filters, then to the Reverse Osmosis membrane process which removes any contaminants, minerals and salts in the water to produce high quality drinking water which exceeds water quality standards. After the RO process, the water is disinfected and fluoride is added to the drinking water to enhance dental health for the community, then pumped to a 1.5 million gallon storage tank and finally distributed to the customers.

If you have any questions about this report or concerning your water utility, or want to obtain a copy of this report, please contact the office at (863) 983-1454, between the hours of 8:00 am and 5:00 pm. The report is also available on our website at www.clewiston-fl.gov . We value our customers and want them to be informed about their water.

The City of Clewiston routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2012, except where otherwise indicated. For contaminants not required to be tested for in 2012, test results are for the most recent testing done in accordance with the regulations.

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.

Contaminants that may be present in source water include:

- 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 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 which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 the 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 at 1-800-426-4791.

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. 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).

In this table you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

- *Action Level (AL)* - The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- *Initial Distribution System Evaluation (IDSE)*: An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.
- *Maximum Contaminant Level (MCL)* - 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.
- *Maximum Contaminant Level Goal (MCLG)*- 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.
- *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 control of microbial contaminants.
- *Maximum residual disinfectant level goal or 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.
- “ND” means not detected and indicates that the substance was not found by laboratory analysis.
- *Nephelometric Turbidity Unit (NTU)* - measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.
- *Parts per million (ppm) or Milligrams per liter (mg/l)* - one part by weight of analyte to 1 million parts by weight of the water sample.
- *Parts per billion (ppb) or Micrograms per liter (µg/l)* – one part by weight of analyte to 1 billion parts by weight of the water sample.
- *Picocuries per liter (pCi/L)* –measure of radioactivity in water
- *Treatment Technique (TT)*: A required process intended to reduce the level of a contaminant in drinking water.

The City of Clewiston is committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call our office at (863) 983-1454 or any other numbers listed in this report.

WATER QUALITY TESTING RESULTS

Note: The result in the lowest monthly percentage column is the lowest monthly percentage of samples reported in the Monthly Operating Report meeting the required turbidity limits.

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	The Highest Single Measurement	The Lowest Monthly Percentage of Samples Meeting Regulatory Limits		MCLG	MCL	Likely Source of Contamination
Turbidity (NTU)	Jan 12 – Dec 12	N	0.61	99.6%		N/A	TT	Soil runoff
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination	
<i>Radiological Contaminants</i>								
6. Radium 226 + 228 or combined radium (pCi/L)	Feb2008 Apr2008 Aug2008 Nov2008	N N N N	1.2 1.3 1.2 1.7	N/A	0	5	Erosion of natural deposits	
<i>Inorganic Contaminants</i>								
9. Arsenic (ppb)	Mar 2011	N	2.0	N/A	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes	
11. Barium (ppm)	Mar 2011	N	0.0014	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
16. Fluoride (ppm)	Dec 2012	N	0.77	N/A	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm	
20. Nitrate (as Nitrogen) (ppm)	July 2012	N	0.038	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
22. Selenium (ppb)	Mar 2011	N	ND	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	
23. Sodium (ppm)	Mar 2011	N	73.2	N/A	N/A	160	Salt water intrusion, leaching from soil	

TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters							
Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
77. Chloramines (ppm)	Jan 12 – Dec 12	N	2.1	0.6 - 4.0	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes
79. Haloacetic Acids (HAA5) (ug/l)	July 12	N	2.1	N/A	N/A	MCL = 60	By-product of drinking water disinfection
80. TTHM [Total trihalomethanes] (ug/l)	July 12	N	0.50	N/A	N/A	MCL = 80	By-product of drinking water disinfection

Contaminant and Unit of Measurement	Dates of samples (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Lead and Copper (Tap Water)							
84. Copper (tap water) (ppm)	Sept 2012	N	0.0184	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
85. Lead (tap water) (ppb)	Sept 2012	N	0.8	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

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 Clewiston 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>.

In 2011 the Florida Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 3 potential sources of contamination identified for this system with moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from City of Clewiston Utilities, 141 Central Avenue, Clewiston, Florida.