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#### 2009 Water Quality Report

This Water Quality Report provides test results that show City of Fort Lauderdale water meets all primary drinking water standards.

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# Conserve to Preserve... Save Water!

The City of Fort Lauderdale encourages you to do your part to save water. The following tips provide the approximate number of gallons of water you can save each month inside and outside your home. Implementing these tips will help you conserve water today to preserve it for tomorrow.

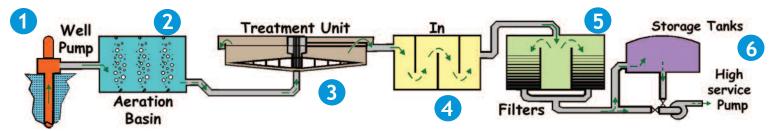
#### HOW MANY GALLONS CAN YOU SAVE INSIDE?

- ✓ Take shorter showers 1,000
- ✓ Repair toilet and faucet leaks 600 to 1,500
- $\checkmark$  Wash full loads in clothes and dishwasher  $\bullet$  up to 1,000
- ✓ Turn off the water while washing, brushing teeth, or shaving up to 800
- ✓ Reduce excessive toilet flushing and do not use it as a waste basket • 500 to 600
- ✓ Install a water-efficient showerhead 750
- ✓ Chill drinking water in the refrigerator 200 to 300

#### How Many Gallons Can You Save Outside?

- ✓ Water lawn in the early morning when it is not windy or raining up to 300
- ✓ Fix sprinkler leaks and correct over spray 500
- ✓ Use mulch and landscape with native, droughtfriendly plants • 750 to 1,500
- ✓ Set lawn mower to the highest setting 500 to 1,500
- ✓ Sweep paved surfaces 600
- ✓ Turn off water while washing car 600
- ✓ Cover your pool to reduce water evaporation 900 to 300

For more water conservation information, please visit www.fortlauderdale.gov. You may also contact the City of Fort Lauderdale 24-Hour Customer Service Center at 954.828.8000 or online at www.fortlauderdale.gov/customerservice.



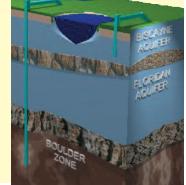
#### From Source To Tap

Where does your water come from and how does it get from its source to your tap? The City of Fort Lauderdale pumps water from wells that draw it from the Biscayne Aquifer, which is an underground water supply and the sole source of your drinking water.

Before it reaches your faucet, your water travels from the Biscayne Aquifer to a treatment facility for lime softening, fluoridation, filtering, cleaning and disinfection. Once the water is treated, it is routinely tested before being pumped through miles of water mains to your faucet.

### The Water Treatment Process

- Ground water from the Biscayne Aquifer is drawn from well fields through pumps and a network of underground pipes. This water has naturally occurring color.
- The water is aerated, which forces air through the ground water and helps to remove odors, iron, magnesium, and carbon dioxide.
- The water is transferred to the treatment unit where lime and chemical coagulants are added to remove calcium hardness and most of the naturally occurring color.
- The water is disinfected with chlorine and ammonia to prevent bacteria growth. Fluoride is added to promote strong teeth.
- Twenty-two dual media filters complete the process by removing suspended particles in the water.
- When the treatment process is complete, drinking water is delivered to our customers through a distribution system.





The City of Fort Lauderdale is pleased to provide you with the 2009 Water Quality Report to inform you about the water we deliver to you every day. This report contains information about the City's water source, water supply, the treatment process, and the contents of your drinking water. The City of Fort Lauderdale routinely monitors for contaminants in your drinking water according to federal and state laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, 2009 to December 31, 2009. Data obtained before January 1, 2009 and presented in this report are from the most recent testing done in accordance with laws, rules, and regulations.

The City of Fort Lauderdale has been providing water to the community since 1926. We are committed to continually improving the water treatment process, protecting water resources, and providing our customers with a clean, dependable supply of high quality drinking water.

#### **Drinking Water Sources and Contaminants**

The sources of drinking water (both tap 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.
- → Pesticides and herbicides, which may come from a variety of sources such as agriculture, 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, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration 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 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 at 1.800.426.4791.

#### Important Health Information



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/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1.800.426.4791.

#### **Contact Us For More Information**

For more information about this report, for questions about your water quality, or to obtain copies of this report, please contact the City of Fort Lauderdale 24-Hour Customer Service Center at 954.828.8000 or online at www.fortlauderdale.gov/customerservice. This report is also available on the City of Fort Lauderdale's web site at www.fortlauderdale.gov.

Este informe contiene información muy importante sobre su agua de beber. Para una copia en Espanol, por favor llamar al teléfono 954.828.8000.



Ti liv-sa-a gen ladann ransèyman enpòtan sou dlo nap bwè-a. Si nou vle yon kopi nan kreyòl ayisyen-an tanpri rele nimewo 954.828.8000.





## CITY OF FORT LAUDERDALE 2009 WATER QUALITY TABLE & INFORMATION

Thallium (ppb)



Laboratory staff performs daily testing to ensure your drinking water meets all local, state, and federal drinking water standards.

#### **Water Quality Table Results**

The Environmental Protection Agency requires the City of Fort Lauderdale and all water suppliers in the United States to provide a summary report on laboratory tests taken on its drinking water throughout the year. In 2009, City of Fort Lauderdale staff sampled approximately 150 sites per month and tested for various drinking water parameters as required by regulations. The 2009 Water Quality Table provides a summary of thousands of test results and shows that City of Fort Lauderdale water meets or exceeds all primary drinking water standards. These results are provided to approximately 50,000 Fort Lauderdale water customers and to surrounding cities that use the City's water.

#### Types of Tests Performed

The City of Fort Lauderdale processes approximately 42 million gallons of water per day and performs

approximately 100,000 tests per year in state-certified laboratories. Water tests include daily bacterial and chemical tests on finished water, weekly bacteriological tests of water in the distribution system, quarterly testing of water supply wells, and annual tests of all regulated and unregulated drinking water parameters.



#### **About Lead**

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 Fort Lauderdale is responsible for providing 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 your potential for lead exposure by flushing your tap for 30 seconds to two 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 by calling the EPA Safe Drinking Water Hotline at 1-800-426-4791or visiting the EPA's web site at www.epa.gov/safewater/lead.

#### Water Quality Table Definitions

The Water Quality Table includes terms and abbreviations you may not be familiar with. The following definitions are being provided to help you understand them better.

Action Level (AL) is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum Contaminant Level Goal (MCLG) is 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 Contaminant Level (MCL) is 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 Residual Disinfectant Level Goal (MRDLG) is 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.

Maximum Residual Disinfectant Level (MRDL) is the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

**Not Detected (ND)** indicates that the substance was not found by laboratory analysis.

Parts per Million (ppm) is one part by weight of analyte to 1 million parts by weight of the water sample.

Parts per Billion (ppb) is one part by weight of analyte to 1 billion parts by weight of the water sample.







Peele Dixie Water Treatment Plant

#### Source Water Assessment

In 2009, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on the City's system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. The assessment results are available on the FDEP Source Water Assessment and Protection Program web site at www.dep.state.fl.us/swapp.

#### Microbiological Contaminants

Contaminant and	Dates of	MCL	Highest			
Unit of Measurement	Sampling (month/year)	Violation Y/N	Monthly Percentage	MCLG	MCL	Likely Source
Total Coliform Bacteria	1/1/09 to 12/31/09	N	4.1	0	For systems collecting at least 40 samples per month: presence of coliform bacteria in 5% of monthly samples.	Naturally present in the environment

Highest monthly percentage is the highest monthly percentage of positive samples or systems collecting at least 40 samples per month.

inorganic Contaminants									
Contaminant and Unit of Measurement	Dates of Sampling (month/year)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source		
Barium (ppm)	7/09	N	0.00395	ND00395	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits		
Fluoride (ppm)	7/09	N	0.752	0.733-0.752	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		
Nitrate (as Nitrogen) (ppm)	7/09	N	0.057	0.035-0.057	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits		
Sodium (ppm)	7/09	N	32.6	22.3-32.6	N/A	160	Salt water intrusion, leaching from soil		

Results in the Level Detected column for inorganic contaminants are the highest detected level at any sampling point.

0.705

7/09

#### Synthetic Organic Contaminants including Pesticides and Herbicides

0.525-0.705

0.5

Leaching from ore processing

glass, and drug factories

sites; discharge from electronics,

Contaminant and Unit of Measurement	Dates of Sampling (month/year)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source
Picloram (ppb)	7/09	Ν	0.011	ND-0.011	500	500	Herbicide runoff

#### Stage 1 Disinfectants and Disinfection By-Products (D/DBP)

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (month/year)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source
Chloramines (ppm)	1/1/09 - 12/31/09	N	3.1	2.6-3.4	MRDLG=4	MRDL=4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	2/09, 5/09, 8/09, 11/09	N	18.4	0.6-36.0	N/A	MCL=60	By-product of drinking water disinfection
TTHM (Total Trihalomethanes)(ppb)	2/09, 5/09, 8/09, 11/09	N	26.1	0.6-50.8	N/A	MCL=80	By-product of drinking water disinfection

For the contaminants and disinfectant residuals monitored under Stage 1 D/DBP regulations, the level detected is the highest annual average of the quarterly averages: Chloramines, Haloacetic Acids, and/or TTHM (MCL 80 ppb). Range of Results is the range of results (lowest to highest) at the individual sampling sites.

## Lead and Copper (Tap Water)

#### Secondary Contaminants

Contaminant and	Dates of	MCL					
Init of Measurement	Sampling (month/year)	Violation Y/N	Highest Result	Range of Results	MCLG	MCL	
r (color units)	7/09	Υ	20	2-20	N/A	15	

 $If you would \ like \ this \ brochure \ in \ an \ alternate \ format, \ please \ call \ 954.828.4746 \ or \ e-mail \ webmaster @fortlauderdale.gov.$