

2008 Water Quality Report

The City of Florence is once again proud to report that the drinking water supplied to citizens and customers throughout the 2008 calendar year was of the highest quality and surpassed all health and safety standards.

“The City of Florence constantly strives to ensure we are providing the highest quality drinking water possible,” said David Williams, the City of Florence’s city manager. “Once again this year, we are pleased to provide customers with the 2008 Water Quality Report, which reflects that the drinking water the City of Florence supplied its customers throughout 2008 was healthy, safe and of optimal quality. This report includes a summary of monitoring and sampling results and shows that our drinking water continues to meet all state and federal standards.”

To ensure the City’s drinking water constantly meets or exceeds the standards set forth in the federal Safe Drinking Water Act, the City of Florence routinely collects sampling data for nearly 100 elements and substances that may be present in public drinking water supplies from both organic and man-made sources. The sampling data collected by the City of Florence is scientifically analyzed and confirmed by the South Carolina Department of Health and Environmental Control (SCDHEC).

The most recent sampling data collected and analyzed for the City of Florence water system for the period between January 1, 2008 and December 31, 2008 shows that the City’s drinking water contains only a few of the elements and substances covered by the Safe Drinking Water Act. This sampling data is presented in a table which is included in this report.

Where Your Water Comes From

The City of Florence relies on groundwater as its primary supply source. Groundwater is obtained from deep wells drilled into the Middendorf and Black Creek aquifers. The City provides drinking water for approximately 75,000 people, including nearly 27,170 residences and more than 2,990 businesses. Approximately 70 percent of Florence’s water is provided by the groundwater well system. The City of Florence also operates the Pee Dee River Regional Surface Water Plant. This plant, which utilizes the Pee Dee River as its source, provides approximately 30 percent of Florence’s water supply.

Florence City Council

Florence City Council governs the policies, funding and management of the City Utility Department. City Council meets the second Monday each month at 1 p.m. in Room 604 of the City-County Complex. The complex is located at 180 North Irby Street in Florence, S.C. Customers and the public are encouraged to attend these meetings.

If You Have Special Health Concerns

Some people may be more vulnerable to substances in drinking water than the general population. Immuno-compromised individuals, such as people undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly individuals and infants, can be particularly at risk due to infections. These people should seek advice about drinking water from their healthcare providers. The Environmental Protection Agency (EPA) and the Centers for Disease Control (CDC) provide guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological substances. Further information is available from the Safe Drinking Water Hotline at 1-800-426-4791.

About This Report

The technical language, terms, descriptions, definitions, precautionary statements and scientific data contained and displayed in this report were strictly prescribed and mandated by federal authorities and federal laws. The South Carolina Department of Health and Environmental Control validated the sampling results listed.

For more information about contaminants and potential health effects, you may call the EPA’s Safe Drinking Water Hotline at 1-800-426-4791.

For more information about this report of the City of Florence water quality, please contact Forrest Whittington at (843) 665-3236 or Michael Hemingway at (843) 665-3271.



Surpassing Water Quality Standards
2008 City of Florence
Water Quality Report

What's In Your Drinking Water?

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may contain at least minor traces of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk.

More information about contaminants, as well as their potential health effects, can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

A source water assessment report has been prepared for the City of Florence water system. The report may be reviewed at the City of Florence Utility Department office by contacting Forrest Whittington at (843) 665-3236.

In 2008, only a small number of the nearly 100 substances and elements regulated under the Safe Drinking Water Act were detected in Florence's drinking water supplies.

Fluoride

Fluoride is a naturally occurring element that helps prevent tooth decay. Therefore, a small amount of fluoride is added during the water treatment process, as recommended by the American Medical Association and the American Dental Association.

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 Florence 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 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 from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Your Drinking Water

Continuing to provide high-quality drinking water is a top priority for the City of Florence. With its dedication to providing superior drinking water service, the City of Florence can assure its customers that their drinking water is safe, healthy and of the highest quality. This report is designed not only to inform customers about water quality and the City of Florence's commitment, but also as a tool to increase customer understanding of drinking water and how it is treated.

2008 Water Quality Sampling Results

The following table shows actual sampling results for substances detected in the City of Florence's water system for the period January 1 to December 31, 2008, compared with state and federal health and safety standards for those substances.

Contaminant	Violation	Level Detected	Measurement Unit	MCLG	MCL	Likely Source of Contamination
Fluoride	No	0.87	PPM	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (2006 Data)	No	90th Percentile 2.7 ND - 7.9 (Range)	PPB	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Copper (2006 Data)	No	90th Percentile 0.017 ND - 0.033 (Range)	PPM	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Alpha Emitters (Source: B21021)	No	3.36-3.40 (Range) 3.38 (Average)	pc/L pc/L	0	15	Erosion of natural deposits
Nitrate	No	0.67	PPM	10	10	Runoff from fertilizer; leaching from septic tanks, sewage; erosion of natural deposits
HAA5 (Haloacetic Acids)*	No	RAA : 6.0 ND - 21.3 (Range)	PPB	0	60	By-product of drinking water chlorination
TTHM (Total Trihalomethanes)*	No	RAA : 19.0 ND - 96.7 (Range)	PPB	0	80	By-product of drinking water chlorination
Di (2-ethylhexyl) phthalate	No	2.4	PPB	6	6	Discharge from rubber and chemical factories

* Compliance is based on RAA, not on individual samples.

Pee Dee River Surface Water Plant Data

Contaminant	Violation	Highest Single Sample	Measurement Unit	Lowest Monthly Percentage Meeting Standard
Turbidity	No	0.23	NTU	100%

Additional Surface Water Plant Data

Contaminant	Violation	Level Detected	Measurement Unit	MRDLG	MRDL	Likely Source of Contamination
Chlorine	No	RAA : 0.52 0.39-0.61 (Range)	PPM	4	4	TT
Total Organic Carbon (TOC in treated water)	No	0.94-2.00 (Range)	PPM			Decay of naturally occurring organic matter
TOC Removal	No	RAA Ratio: 1.62	Dimensionless	RAA Ratio Standard >1.0		Decay of naturally occurring organic matter

In addition, the City has been monitored under the Unregulated Contaminant Monitoring Regulation 2 (UCMR2) in 2008. No detections were noted. If you would like to receive a list of the contaminants monitored, please contact Forrest Whittington at (843) 665-3236.

The following definitions are designed to help you understand the data and information presented in the accompanying tables.

MCLG Maximum Contaminant Level Goal. The level of contaminant in drinking water below which there is no known or expected health risk. MCLGs provide a margin of safety.

MCL Maximum Contaminant Level. 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.

ND Nondetected. No measurable level of a substance or contaminant detected.

PPB Parts Per Billion. The equivalent of one penny in \$10,000,000 or one minute in 2,000 years.

90th Percentile Of all samples analyzed, 90 percent were at or below the detection level.

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

PPM Parts Per Million. The equivalent of one penny in \$10,000 or one minute in two years.

MRDL Highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

MRDLG Level of drinking water disinfectant below which there is no known risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NTU Nephelometric Turbidity Unit. Units of measure to indicate water clarity.

TT Treatment Technique. Required process intended to reduce the level of a contaminant in drinking water.

RAA Running annual average.

pc/L Picocuries per liter. A measurement of radioactivity in water.