



# **NORTH LAUDERDALE WATER QUALITY REPORT 2009**

July 2010

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

# Tap Into Goodness

North Lauderdale is pleased to present our Annual Water Quality Report. This report is designed to inform you about the water we deliver to you every day. Our primary goal is to provide a safe and dependable supply of drinking water for consumption and use that is free of health hazards, being adequate to meet most growing needs for residential, commercial and industrial customers of the City and to produce water that meets all regulatory agency parameters.

Our staff routinely monitors for contaminant's in your drinking water according to Federal and State laws, rules and

regulations.



Except where indicated otherwise, this water quality report is based on the results of our monitoring for the period of January 1, 2009 to December 31, 2009.

North Lauderdale is proud to report that your drinking water meets or exceeds all federal and state requirements. This report reflects the hard work and dedication of our employees who ensure water delivered from our facilities meets all standards for safety, reliability and quality.

If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed in this brochure.

## About Storm Water

<p><b>What is storm water runoff?</b> Storm water runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks and streets prevent storm water from naturally soaking into the ground.</p>	<p>tants and flow into a storm sewer system or directly to a lake, storm, river, wetland or coastal water. Anything that enters a storm sewer system is discharged untreated into the water bodies we use for swimming, fishing and providing drinking water.</p>	<p>plants, fish, animals and people. Sediment can cloud the water and make it difficult or impossible for aquatic organisms to exist in water with low dissolved oxygen levels. Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.</p>	<p>butts—washed into water bodies can choke, suffocate or disable aquatic life like ducks, fish turtles and birds. Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.</p>
<p><b>Why is storm water runoff a problem?</b> Storm water can pick up debris, chemicals, dirt and other pollu-</p>	<p><b>The effects of pollution!</b> Polluted storm water runoff can have many adverse effects on</p>	<p>Debris-plastic bags, six-pack rings, bottles and cigarette</p>	

## Summer Hose and Sprinkler Fun...But Is It Safe to Drink?

During the hot months of summer children like to cool down with a hose or sprinkler, but experts advise not to drink from a hose.

Many hoses are made of polyvinyl chloride, which uses lead as a stabilizer. Some are labeled safe on the package and if you flush out the hose, it can lessen the worrisome amounts of lead and other chemicals that leach from the hose itself.

*Consumer Reports* recently tested hoses sold at national chains and on the Internet. Some had packaging indicating they were safe for drinking; others had warning labels. But some of the hoses weren't labeled either way.

The hoses labeled safe for drinking typically contained less lead in their con-

struction than the others. In our tests, those hoses leached minuscule amounts of lead into water that had been standing in the hose for 20 hours or more (the time the water stands in the hose, water

temperature and acidity all affect the amount of lead leaching). Hoses containing the highest amounts of lead, only two of which carried a "do not drink" label, leached 10 to 100 times allowable lead levels in the first draw of standing water.

However, even extremely low levels of lead may cause health problems. A recent study reported in *The New England Journal of Medicine* suggests that lead levels in the blood even lower than the current definition of toxicity may adversely affect a child's IQ.

There are hoses made with "food-grade" plastic that will not contaminate the water. Check your local hardware store for this type of hose.

# How North Lauderdale Gets Its Drinking Water

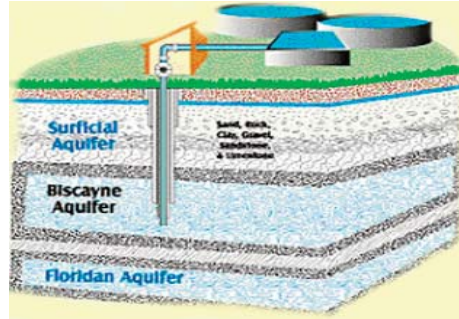
The City of North Lauderdale Treatment Plant gets its water from wells drawn from the Biscayne Aquifer, an underground water supply and the sole source of our drinking water.

Before the water is transmitted to the consumer's tap it undergoes several treatment processes at the plant.

The first step of the process is softening by slaked lime. This removes 75% of the calcium hardness-producing component in ground water by means of a chemical reaction.

Fluoride is added to prevent tooth

decay. In this step of the treatment process, polymers are also added so that most of the hardness and particulates in the water can settle out in the softening units in the form of solids. After water leaves the softening unit, it



passes through filter media consisting of 18 inches of anthracite coal and 10 inches of sand and several layers of rock and gravel to remove any remaining particulate matter, which further clarifies the water.

Disinfection is accomplished by the addition of Chlorine.

The chlorine residual continues to work throughout the distribution system to prevent bacteria re-growth. The finished water product is then lab tested to make sure it meets aesthetic water quality standards.

## Water Restrictions Still In Effect

In response to improved regional water resource conditions, the South Florida Water Management District (SFWMD) modified emergency water restrictions across most of the agency's 16-county region, transitioning from one-day-a-week landscape irrigation restrictions to two-day-a-week watering. Residences with an ODD number address may water on Wednesday and Saturday between 12 a.m. to 10 a.m. AND/OR 4 p.m. to 11:59 p.m.

Residences with an EVEN-number address, no street address, and systems that irrigate both odd and even address within the same zones, including multi-family units, homeowners associations and commercial complexes/retail shopping centers may water Thursday and Sunday 12 a.m. to 10 a.m. AND/OR 4 p.m. to 11:59 p.m.

For the most efficient use of water, avoid irrigating during both time periods on the same day. Most lawns need only 3/4 to 1 inch of water per week. Watering is not allowed between 10 a.m. and 4 p.m. For more information call the South Florida Water Management District at 1-800-432-2045 or on-line at [www.sfwmd.gov](http://www.sfwmd.gov).

## It's Safe To Drink...Enjoy

Water is regarded as commonplace because it is the most plentiful liquid on earth and we have a close familiarity with it. But is the water safe to drink?

### YES

In order to make sure that tap water is safe to drink, EPA and the Florida Safe Drinking Water Act mandates strict regulations that limit the amount of contaminant's in water provided by public water systems.

The State and Federal Government require us to test water on a regular basis to make sure it is a safe product.

During Fiscal Year 2008/2009, we anticipate producing 1.2 billion gallons of

quality potable water that will meet or exceed the Federal and State requirements.

The report on the next page contains a detailed description of the water quality



for the City of North Lauderdale Utilities Department for 2009.

The City of North Lauderdale Utilities Department is committed to providing the highest quality drinking water to the residents of our City.

We are dedicated on a daily basis to ensure residents have aesthetically pleasing safe drinking water.

If you have questions about this report or your water quality, please contact the Utilities Department at 954 724-7070.

This report provides a detailed description of the water quality for North Lauderdale Water Department during 2009. If you have any questions about this report or concerning your water quality, please contact the Public Works/Utilities Department at (954) 724-7070

Contaminant and Unit of Measurement	MCL/TT/AL Violation Y/N	Level Detected	Range	MCLG	MCL	Likely Source of Contamination	
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria (%)	N	4		0	5%	Naturally present in environment	
<b>Inorganic Contaminants</b>							
Fluoride (ppm)	N	.73		4	4	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer & aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm	
Barium (ppm)	N	0.0007	0	2	2	Erosion from natural deposits	
Sodium (ppm)	N	40.1		N/D	160	Salt water intrusion, leaching from soil	
Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
<b>Lead and Copper (Tap Water)</b>							
*Copper (tap water) (ppm)	09/2008	N	0.131	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preserves
**Lead (tap water) (ppb)	09/2008	N	3.0	0	0	15	Corrosion of household plumbing systems, erosions of natural deposits
<b>Stage I Disinfectants and Disinfection By-Products</b>							
Disinfectant or Contaminant and unit of Measurement	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramines (ppm)	01/2009	N	2.9	0.4-2.8	MRDLG =4	MRDL =4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	01/2009	N	17.8	9.62-30.7	NA	MCL = 60	By-product of drinking water disinfection
TTHM (Total Trihalomethes) (ppb)	01/2009	N	19.4	6.00-45.6	NA	MCL =80	By-product of drinking water disinfection

In 2009 the 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 2 potential sources of contamination identified for this system with a moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swwapp](http://www.dep.state.fl.us/swwapp).

### Notes:

- Level detected is maximum number of samples in which coliform was detected in a month. MCL is the presence of coliform bacteria in more than one sample collected during a month.
- Level Detected is the maximum detected level, unless otherwise indicated.
- Range is the range of levels detected, from the lowest to the

highest level

- Level detected is 90th percentile value of most recent round of sampling. No homes exceeded AL.
- Color does not present any risk to your health. Color is naturally present because of natural organic material caused by decaying vegetation. We monitor color because customers judge water quality based on taste and appearance, and it is a good indicator of the water quality and effectiveness of disinfectants.

### Key to Abbreviations and Definitions:

**AL** = Action Level or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements, which a water system must follow.

**MCL** = Maximum Contaminant Level is 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.

**MCLG** = Maximum Contaminant Level Goal is the level of contaminant in drinking water below which there is no known or ex-

pected risk to health. MCLG's allow for a margin of safety.

**ND** = non detected

**PPM** = parts per million, or part per million corresponds to one minute in 2 years or a single penny in \$10,000.

**PPB** = parts per billion, or part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

**TT** = Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

**TTHM** = Total Trihalomethanes

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 provider. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

# For Our Customers With Health Concerns

In order to ensure that tap water is safe to drink the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems, The Food and Drug Administration (FDA) regulates bottled water.

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.

## **Immuno-Compromised Persons**

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.

Environmental Protection Agency and the 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 (800-426-4791).

## **Lead in Drinking Water**

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, North Lauderdale Public Works 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## What You Should Know About Certain.....Contaminant's?

Radon---Radon 222, or radon for short, is a colorless, odorless gas that occurs naturally in soil, air and water. Radon is formed from the radioactive decay products of natural uranium that is found in many soils. In most homes, the health risk from radon in drinking water is very small compared to the health risk from radon in indoor air. For more information, call the EPA's Radon Hotline at 1-800-SOS-RADON.

The EPA proposed a Maximum Contaminant Level of 300 pCi/L or an alternative maximum contaminant level (AMCL) of 4000 pCi/L for radon. The AMCL requires development of a multimedia mitigation (MMM) program, which also addresses radon exposure from indoor air.

Cryptosporidium---In April of 1993, the cryptosporidiosis outbreak in Milwaukee, Wisconsin alerted water utilities to the potential threat that this protozoan organism presents to public water supplies. There were an estimated 400,000 cases of diarrhea and several deaths associated with the disease in severely immuno-compromised persons. This organism is primarily associated with surface water sources.

North Lauderdale uses the Biscayne Aquifer as a source of supply, the State has raised the issue that some groundwater sources may be under the direct influence of surface water (UDI).

To date, neither Cryptosporidium nor Giardia - another pro-

tozoan - have been found in our source water treatment plants.

Lead---There are no detectable levels of lead in the water supplied by North Lauderdale.

Research has shown, however, that infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community because of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may flush your tap for 30 seconds to two minutes before using tap water.

Nitrate--Although the level of nitrate (refer to the table on water quality data) is consistently below the health effect

level, the EPA requires the following information be included in this report: "Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue-baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).



## Water Reality Check

Until your attention is drawn to it, you may not realize how much water you use — and waste — everyday. It can add up quickly when you consider the number of times we engage in activities that require water. Each Broward County resident uses an average of 161 gallons of water every day. Consider the following activities and how much water they require. Estimate the amount of water you use based on these figures. Surprising isn't it?

Activity	Water Used with Wasteful Practices	Water Used with Conserving Practices
Showering for 10 minutes	About 50 gallons (conventional showerhead)	About 25 gallons (low-flow showerhead)
Shaving	20 gallons (water on)	1 gallon (fill sink)
Washing hands for 2 minutes	10 gallons (traditional faucet)	4 gallons (using faucet aerator)
Flushing the toilet	3 to 5 gallons	1.6 gallons (low-flow model)
Washing the car	100 or more gallons (hose running)	10 to 15 gallons (fill bucket)
Brushing teeth	4 gallons (water on)	.25 gallons or less (water off, fill glass to rinse)
Washing dishes	30 gallons (tap running)	5 gallons (fill sink)
Using a dishwasher	16 gallons (partial load, full or pot-scrubber cycle)	9 gallons (light wash, full load)
Washing clothes	35 to 40 gallons/load (highest water level)	25 gallons (lower water level, adjusted to load)

Sources: EPA, USGS, California Urban Water Conservation Council

## Water Conservation Facts

The human body is more than three-quarters water. It is essential to existence, not only for people, but for plants and animals as well.

It covers 70 percent of the earth's surface. At least 97 percent of the world's water is salty and undrinkable. Another two percent is polluted, polar ice, or otherwise inaccessible and undrinkable. That leaves approximately one percent for humans to use. The average home uses more than 200 gallons of water per day.

- An average of 8% of all home water use is wasted through leaks.
- Turning off the water while you brush your teeth can save 4 gallons of water a minute. That's 200 gallons a week for a family of four.
- Turning off the water while you shave can save more than 100 gallons of water a week.
- Fixing a leak can save 500 gal-

lons of water each month.

- Every toilet flush you eliminate can save between two and seven gallons of water
- Taking showers instead of baths can save 30 gallons of water. Filling the bathtub uses about 50 gallons of water.



- Keeping your shower under 5 minutes can save up to 1000 gallons a month.
- Turning off water while shampooing and conditioning hair can save 50 gallons a week.
- Using a water-saving showerhead can save your family 500 gallons a week.
- Running your dishwasher and washing machine only when they are filled can save 1,000 gallons a month.
- Choosing a water-saving model when replacing a washing machine can save up to 20 gallons per load.
- Using a hose nozzle and turning off the water while you wash your car can save more than 100 gallons of water.
- Choosing a low water use plant when replacing or adding a flower or shrub can save 550 gallons each year.

# Additional Information About Your Water

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 materials, and can pick up substances resulting from the presence of animals or from human activity. Contaminant's that may be present in source water include:

**Microbial contaminant's**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Inorganic contaminant's**, such as salts and metals, which can be naturally occurring or result from urban

storm-water 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 storm-water runoff and residential uses.

**Organic chemical contaminant's**, 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 contaminant's**, 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 EPA prescribes regulations which limit the amount of certain contaminant's in water provided by public water systems. FIA regulations establish limits for contaminant's 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 contaminant's.

The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminant's and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

## Frequently Asked Questions

**What's growing in my pet's water bowl?** Dog and cat owners often notice the appearance of black or pink growths in their pet's water bowl. These growths come from various types of mold in the air - not the water. Similar growths can also be found on showerheads and shower curtains. Wash your pet's water bowl frequently.

**What makes water Hard?** If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be hard. Hard water does not dissolve soap readily, so making lather for washing and cleaning is difficult. Conversely, water containing little calcium or magnesium is called soft water.

**Should I put a brick in my toilet tank to save water?**

Toilet flushing uses a lot of water...about 40% of a household's total water usage. Putting something in the toilet tank that takes up space, like a toilet dam or a water filled jug, is a good idea. But putting a brick in the tank is not

a good idea. Bricks tend to crumble and might damage your toilet.

**How long can I store drinking water?** The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six

months before needing to be replaced. Refrigeration will help slow the bacterial growth.

**How often should I run the dishwasher or do laundry?** Doing laundry and running the dishwasher are the next highest uses of water. Running both the washing machine and the

dishwasher at full loads reduces the amount of water and saves work time as well. The dishwasher is more efficient if the dishes are scraped without rinsing and placed directly into the dishwasher.



City of North Lauderdale  
701 SW 71st Avenue  
North Lauderdale FL  
33068-2395

## North Lauderdale Water Quality Report

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**Commissioner  
David G. Hilton**



**Commissioner  
Rich Moyle**



**North Lauderdale Public Works  
701 SW 71 Ave  
North Lauderdale FL 33068**

### Important Numbers

For General Utility Information 954-724-7070  
After Hours 954-724-7071  
[www.nlauderdale.org](http://www.nlauderdale.org)  
Environmental Protection Agency 1-800-426-4791  
[www.epa.gov/safewater](http://www.epa.gov/safewater)  
Center For Disease Control 1-404-639-3311  
[www.cdc.gov](http://www.cdc.gov)  
South Florida Water Management District 1-800-662-8876  
[www.mysfwmd.gov](http://www.mysfwmd.gov)  
Water/Utility Billing 954-722-3800