

2008

**2008  
WATER  
QUALITY  
REPORT**



**Cooper City  
Utilities  
Department**

May 2009

# 2008 WATER QUALITY REPORT

The Cooper City Utility Department  
treats one of the most important  
resources in the world:  
your water.

Because we are committed to providing  
you the safest, highest quality drinking  
water at an affordable price, we routinely  
test our water to ensure it's always clean  
and healthy. As this report attests, our  
water supply is proven superior in safety,  
clarity, and taste, even compared to  
most bottled water!



## Another Year of Outstanding Water Quality

This annual Water Quality Report shares important information you should know about the water we proudly deliver to your homes and businesses every single day.



The Water Quality Report, shown inside, provides detailed testing results from samples of your water supply, and compares the quality of your tap water to federal and state standards.

**The results of this table confirm that Cooper City's drinking water meets or exceeds all federal and state standards set for quality and safety.**

## Our Commitment to Clean, Healthy Water from Every Tap, Every Time

**Be not simply good - be good for something.**  
*Henry David Thoreau*

Our Water Treatment Plant, located at 11791 SW 49th Street, is operated 24 hours per day, 7 days per week, 52 weeks per year. **To meet our commitment to provide clean, healthy water from every tap, every time, your water is tested more than 40,000 times every year!**

The treatment process used to purify your water is one of the most advanced in the world. Known as membrane softening, this water treatment process uses a series of filter-like membranes to remove hardness, minerals, color, and other natural organic matter found in groundwater. The water is then disinfected with chlorine and flouridated to produce healthy drinking water.



**We are both pleased and proud to report that your water meets or exceeds all federal and state standards set for quality and safety.**

To ensure your water is always safe to drink, without exception, Cooper City disinfects its water using a process known as chlorination—a process that has been protecting the U.S. water supply from waterborne infectious diseases for more than 90 years.



## Did You Know...

- More than half of all water use inside a house takes place in the bathroom.
- Up to 75 percent of a home's total water use during the growing season is for outdoor purposes.
- Nearly 14 percent of the water a typical homeowner pays for is never even used. It leaks down the drain!
- Running a full load of dishes in a dishwasher saves water over washing the same dishes by hand.
- Fixing a toilet that silently leaks 200 gallons of water per day might save nearly \$1,000 per year.
- Installing high-efficiency plumbing fixtures and appliances can help a typical family of four reduce indoor water use by one-third, save about \$95 per year on their water and sewer bill, and cut energy use by as much as 6 percent.



*The new membrane treatment plant greatly improves the quality of your drinking water.*

Currently, about 8 percent of U.S. energy demand is used to treat, pump, and heat water. Using less water can lower energy demand, thereby reducing the amount of pollutants released from power plants.

Water heating accounts for 19 percent of home energy use. If 20 percent of U.S. homes used high-efficiency clothes washers, the national energy savings would be enough to supply the needs of more than 1 million homes.

## Understanding the Language of Water Quality

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

**Level Found:** The highest level of the compound detected in the finish water process at the treatment plant.

**Detected Compounds:** Compounds in Cooper City's drinking water detected during calendar year 2007. The Safe Drinking Water Act requires that the highest value detected during the calendar year be provided in this report. Not listed are **more than 100 other compounds** for which we tested that **were not detected**.

**MCL [Maximum Contaminant Level]:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available technology.

**MCLG [Maximum Contaminant Level Goal]:** 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.

**MRDLG:** Maximum residual disinfectant



level goal. 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.

**MRDL:** Maximum residual disinfectant level. 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.

**ppb [parts per billion]:** One part per billion is the equivalent of 1 minute in 2,000 years or a single penny in \$10,000,000.

**ppm [parts per million]:** One part per million is the equivalent of 1 minute in 2 years or a single penny in \$10,000.

**Range:** The lowest and the highest reading of a detected compound for the reporting period.

**Trihalomethanes:** Compounds formed during the chlorination [disinfection] of drinking water.

**pCi/L [picocuries per liter]:** A measure of radioactivity.



rainwater. South Florida's topography creates a very effective purification system by filtering water through many feet of soil, sand, and rock. This natural system assures that the very source of our drinking water is protected from harmful organisms, such as *Cryptosporidium* and *Giardia*, even before it's purified at the water treatment facility. Although the Biscayne Aquifer is prolific, it is not limitless. With the increased pressure of a growing population, and a focus on restoration of the Everglades, the competition for water in South Florida is stronger than ever. Add to that the current drought conditions and questions about the integrity of Lake Okeechobee's dike and the Lake's ability to supplement our water demand, and it's easy to see why we should be thinking about our water supply and how we can conserve this precious resource.

Ahead in this report you will find some tips on how you can conserve water and save some money on your utility bill in the process! Also, you can visit the City's website ([www.coopercityfl.org](http://www.coopercityfl.org)) as well as the South Florida Water Management District website ([www.sfmwd.gov](http://www.sfmwd.gov)) to learn more about the current water restrictions. Let's all be "water-wise" and do our part to help conserve water.

## How Do Contaminants Get Into Water?

Sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater. As water travels underground, it can pick up substances such as microbes, inorganic and organic chemicals, and radioactive substances. Contaminants that may be present in the source water include:

■ Microbial contaminants, such as viruses and bacteria, which may come from wastewater treatment plants, septic systems, agricultural livestock operations, wildlife, and residential runoff.

■ Inorganic contaminants, such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

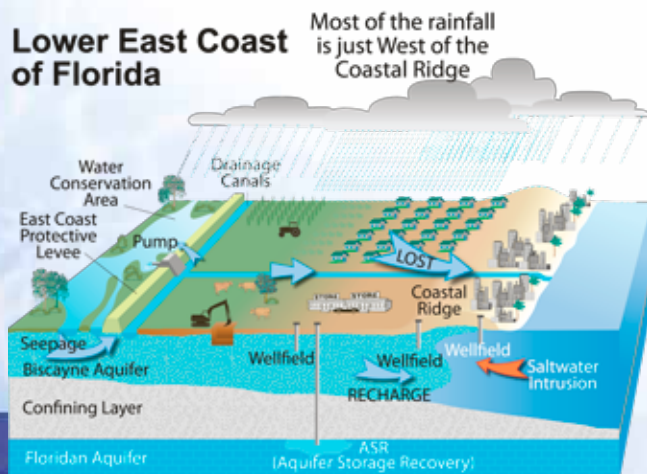
■ Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.

■ 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.

It is important to remember that all 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 U.S. Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

## The Source of Your Drinking Water

The Utilities Department draws from one of the most prolific sources of raw water — the Biscayne Aquifer. We use six wells, ranging from 70 to 90 feet deep, to draw water from this aquifer, which is replenished by



# Cooper City Utilities Water Quality Report

To determine how the quality of your drinking water compares to government standards, compare the "Level Found" column with the maximum allowed "MCL" column.

Detected Compounds [b]	Time of Sampling (month/year)	MCL	MCLG	Range of Results	Level Detected	MCL Violation (Y/N)	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
Total Coliform (%)	1/2008 - 12/2008	5 [c]	0		0	N	Naturally present in the environment
<b>Inorganic Contaminants</b>							
Arsenic [ppb]	8/2008	10	0		1.3	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium [ppm]	8/2008	2	2		0.001	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper [ppm] [tap]d	8/2007	*AL 1.3	1.3		0.041	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride [ppm]a	8/2008	4	4		0.76	N	Water additive that promotes strong teeth; Naturally occurring in groundwater due to mineral erosion
Nitrate (as Nitrogen) (ppm)	8/2008	10	10		1.03	N	Runoff from fertilizer use; Leaching from septic tanks, Sewage; Erosion of natural deposits
Sodium [ppm]	8/2008	160	NA		13.7	N	Naturally occurring in groundwater due to mineral erosion; Saltwater intrusion
* [0 homes out of 31 sampled tested above the Action Level (AL).]							
<b>Radiological Contaminants</b>							
Gross Alpha [pCi/L]	4/2008	15	0	0.9 ± 0.4	0.9	N	Naturally occurring in groundwater due to mineral erosion; Next test period in 2011
<b>Disinfectants and Disinfection By-Products</b>							
Haloacetic Acids Five [ppb]	2/2008 - 11/2008	60	NA	ND - 15	15	N	By-product of drinking water disinfection
Chlorine Chloramine [ppm]	1/2008 - 12/2008	4	4	1.9 - 2.8	2.3	N	By-product of drinking water disinfection
Total Trihalomethanes [ppb]	2/2008 - 11/2008	80	NA	ND - 1.26	1.26	N	By-product of drinking water disinfection

**There are significantly fewer detected compounds in your drinking water this year (and we test for hundreds of compounds annually)! Since 100% of Cooper City's water is treated by our state-of-the-art membrane facility, the color, taste, odor, and quality of your drinking water is far superior to even most bottled water.**



#### Legend

MCL: Maximum Contaminant Level  
MCLG: Maximum Contaminant Level Goal  
MRDL: Maximum Residual Disinfectant Level Goal  
MRDLG: Maximum Residual Disinfectant Level Goal

NA: Not Applicable  
ND: Non Detectable  
pCi/L: picocuries per liter  
ppb: parts per billion  
ppm: parts per million

#### Table Notes

a: Both positive and negative health effects are associated with fluoride. It is regulated under the Safe Drinking Act because it can have two types of negative health effects. If ingested at high levels [greater than 4 ppm] for a short period of time, it may be toxic. If ingested at lower levels [greater than 2 ppm but less than 4 ppm], there may be long-term effects, such as discoloration of teeth or weakening of bone structure. Cooper City fluoridates its water because of its positive health benefits at concentrations less than 2 ppm. Benefits include the prevention of dental problems in children. Fluoride levels in Cooper City's water have never exceeded MCLs.

b: EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table above are the only contaminants detected in your drinking water.

c: For systems collecting at least 40 samples per month; presence of coliform bacteria in 5% of monthly samples.

d: 90th percentile result in accordance with 40 CFR 151.143.

Water Source: Biscayne Aquifer



## Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer under going 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 and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791.



- Never use your toilet as a wastebasket.
- Keep drinking water in the refrigerator instead of letting the faucet run until the water is cool.
- Do not use water to defrost frozen foods; thaw in the refrigerator overnight.
- Scrape, rather than rinse, dishes before loading into the dishwasher; wash only full loads.
- Wash only full loads of laundry or use the appropriate water level or load size selection on the washing machine.

- Consider purchasing high-efficiency toilets, or place a plastic container filled with water in the tank of your conventional toilet. Be sure it does not interfere with operation of the toilet's flush mechanisms.
- Install low-flow faucet aerators and showerheads.
- Consider purchasing a high-efficiency washing machine, which can save more than 50 percent in laundry water and energy use.

- Repair all leaks. A leaky toilet can waste 200 gallons per day. To detect leaks in the toilet, add food coloring to the tank water. If the colored water appears in the bowl, the toilet is leaking.

- Water the lawn or garden during the coolest part of the day (early morning is best). Do not water on windy days.

- Use mulch around shrubs and garden plants to reduce evaporation from the soil surface and cut down on weed growth.

- Raise your lawn mower cutting height—longer grass blades help shade each other, reduce evaporation, and inhibit weed growth.



## Using Water Wisely Conserves Money and the Environment

Conserving water not only saves money, it also helps preserve the beauty and splendor of our unique environment. Easy conservation measures include:

- Do not let the water run while shaving or brushing teeth.
- Take short showers instead of baths.

## Need More Information?

We want you to be informed about our water utilities and the high-quality drinking water delivered to your homes and businesses every day. We also encourage community participation in drinking water issues. If you want to learn more about our treatment processes and operations, or if you would like to become involved in our drive to deliver high-quality water at an affordable price, please contact Cooper City Utilities at 954-434-5519.

The Department of Environmental Protection conducted a source water assessment for Cooper City in 2008. To view the assessment, please visit [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp)

If you have any questions about this report, or if you would like a copy of our water system's complete source water assessment, please call 954-434-5519. For additional information about water quality, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.



## You Can Never Be Too Safe about the Safety of Your Drinking Water

As part of ongoing efforts to protect the health of our communities, the state of Florida has developed rules that regulate how water utilities respond to water main breaks. According to the rules, if a water main breaks and its interior is exposed to ground water, soil, or other foreign matter, a **Precautionary Boil Water** notice must be issued in the affected area. As the name implies, this is a *precautionary measure*, and more importantly, such a response is not necessary for most water leaks.

We understand that precautionary boil water notices can be a major inconvenience and we make every effort to avoid them. In the rare event that a significant break does occur, notices are distributed immediately using door hangers, direct telephone calls, and/or news releases. A notice is lifted a minimum of 24 hours after its release and only after bacteriological testing confirms the water is safe to drink. We care about your safety and encourage you to follow the precautionary notice should one be issued in your area. After all, where your drinking water is concerned, it is better to be safe than sorry! For more information on this subject, visit the Florida Department of Health website at [www.doh.state.fl.us](http://www.doh.state.fl.us).

## Beware of Strangers Fraudulently Selling Water Filters

### Help Us Stop These Deceitful Sales Practices!

There have been many reports of people disguising themselves as City or government representatives luring homeowners to purchase expensive and unnecessary home water filters. Often times, these people use scare tactics to convince homeowners that their tap water is dangerous and poses a health risk. These statements are inaccurate, misleading, and illegal!

In response to this growing problem, the Cooper City Commission recently passed an ordinance prohibiting people from misrepresenting themselves as City employees, especially in an attempt to conduct business transactions.

If a stranger knocks on your door claiming that he/she is a member of our utilities, City, or government staff wanting to discuss your water quality, please do not let them in. Call the police or the utilities department immediately and report the incident.

Fraudulent literature seemingly authorized by the utilities department is also being left on door handles and in mailboxes. Often times, this literature invites homeowners to send in a water sample for a free water quality analysis. The homeowners then receive erroneous and fraudulent water quality information to deceive them into purchasing a very costly water filtration system. This tactic is also illegal and should be reported immediately!



**Rest assured, your drinking water is superior in safety, color, and taste, even compared to most bottled water.**

## Before You Buy That Bag of Fertilizer

Fertilizing your lawn is practically a great American past time just like watching the big game or barbecuing on the weekends. However, unlike football and barbecue, improper fertilization of your lawn can cause negative environmental impacts to our water quality, plants, and animals. If we apply too much fertilizer, it can wash off our lawns and into our waterways causing nuisance plants to grow, harm fish and animals, and require water managers to apply costly chemicals to control aquatic plant growth. So before you buy that bag of fertilizer, consider the following misconceptions that many people have about fertilizing their lawns:

**Misconception #1:** The higher the three numbers on the front of the bag, the better the fertilizer is for the lawn.

**Reality:** The three numbers on the front of each bag of fertilizer represent its nutrient concentration in percentile form. For example, a bag of fertilizer that is labeled 20-5-25 means that it contains 20% Nitrogen, 5% Phosphorus, and 25% Potassium. Depending on the brand of fertilizer, the rest of the bag may contain some minor nutrients and filler material. Excessive nutrients have been shown to cause numerous water quality problems in our canals and ponds, problems that may ultimately find their way to the Everglades and our reefs. Phosphorus is found naturally in South Florida soils and your lawn really doesn't require additional amounts for growth. When purchasing a bag of fertilizer, take a look at the three numbers on the front of the bag. Then, focus on the middle number which is the phosphorus concentration and select a bag of fertilizer with a middle number of 2 or less. Always remember that when it comes to lawn fertilizer, 2% Phosphorus or less is best!

**Misconception #2:** I should fertilize my lawn once per month.

**Reality:** Lawns should only be fertilized as needed. Also, you should never apply fertilizer prior to a major rain event because the precipitation will wash the fertilizer past the root zone before it can be absorbed by the grass. Too often we fertilize our lawns based on the advice of friends, family members, and neighbors, while still others of us are influenced by advertising. Fertilizer manufacturers spend a significant amount of money on advertisements that promote frequent fertilizing. The most effective time to fertilize the lawn is prior to the rainy season which is between June and November. The months of March and October are ideal for fertilization because March is the beginning of the growing season and October fertilization allows for proper nutrition during our dry season.

These are just two of the many misconceptions about fertilization. Hopefully, this article has provided you with some useful information that will keep your lawns beautiful, help improve our water quality and the environment, and save you time and money in the process!

For more information about landscape best management practices, contact us at 954-519-1222.



# A Message from the Utilities Director

**Michael F. Bailey**

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A Message from the Utilities Director

It is with great pride that I once again present you with your annual Water Quality Report for 2008. As is shown in this report, the quality of your drinking water continues to be excellent and meets or exceeds all federal, state and local requirements.

As your water provider, we are constantly monitoring your water to make sure that it is safe and available 24 hours a day, 7 days a week, and that there is an adequate supply of water to meet community needs. That means carefully treating and disinfecting water to remove any potentially harmful contaminants and make sure it is still safe when it reaches your faucet. We also maintain an elaborate underground network of mains and pipes to get it there.

Cooper City Utilities delivers more than water. We deliver public health, fire protection, support for the economy, and the overall quality of life we all enjoy. Our job is to ensure that your water keeps flowing not only today, but well into the future. It is all part of our commitment to serve you and everyone in Cooper City, and we appreciate the opportunity.

If you have any questions or would like additional information, please do not hesitate to contact me at (954) 434-5519 or email me at [m Bailey@coopercityfl.org](mailto:m Bailey@coopercityfl.org).  
Sincerely,



Michael F. Bailey, P.E.  
Utilities Director / City Engineer



## City Commission

Mayor Debby Eisinger  
Commissioner Lisa Mallozzi  
Commissioner John Sims  
Commissioner James Curran  
Commissioner Neal DeJesus

## City Manager

Bruce Loucks

## Utilities Department

Utilities Director/City Engineer  
Mike Bailey, P.E.

## Contact Us

City of Cooper City  
11791 SW 49th Street  
Cooper City, Florida 33330  
Utilities Department: 954-434-5519  
After Hours/Emergency: 954-434-5519  
[www.CooperCityFL.org](http://www.CooperCityFL.org)

**COOPER CITY**

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**On March 17, 2006  
the Cooper City Utilities plant was renamed  
the George A. Haughney, P.E.  
Utility Complex  
in honor of our friend and colleague.**

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11791 SW 49th Street  
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