



# Water Quality Report



City of Myrtle Beach

July 2011

## Why am I Getting this Report?

The U.S. Environmental Protection Agency (EPA) requires all water suppliers to provide annual drinking water quality reports to their customers.

This requirement was adopted in the 1996 Amendments to the Safe Drinking Water Act. These reports give consumers valuable information to make personal health-based decisions regarding their drinking water consumption. So, look for these reports on an annual basis!

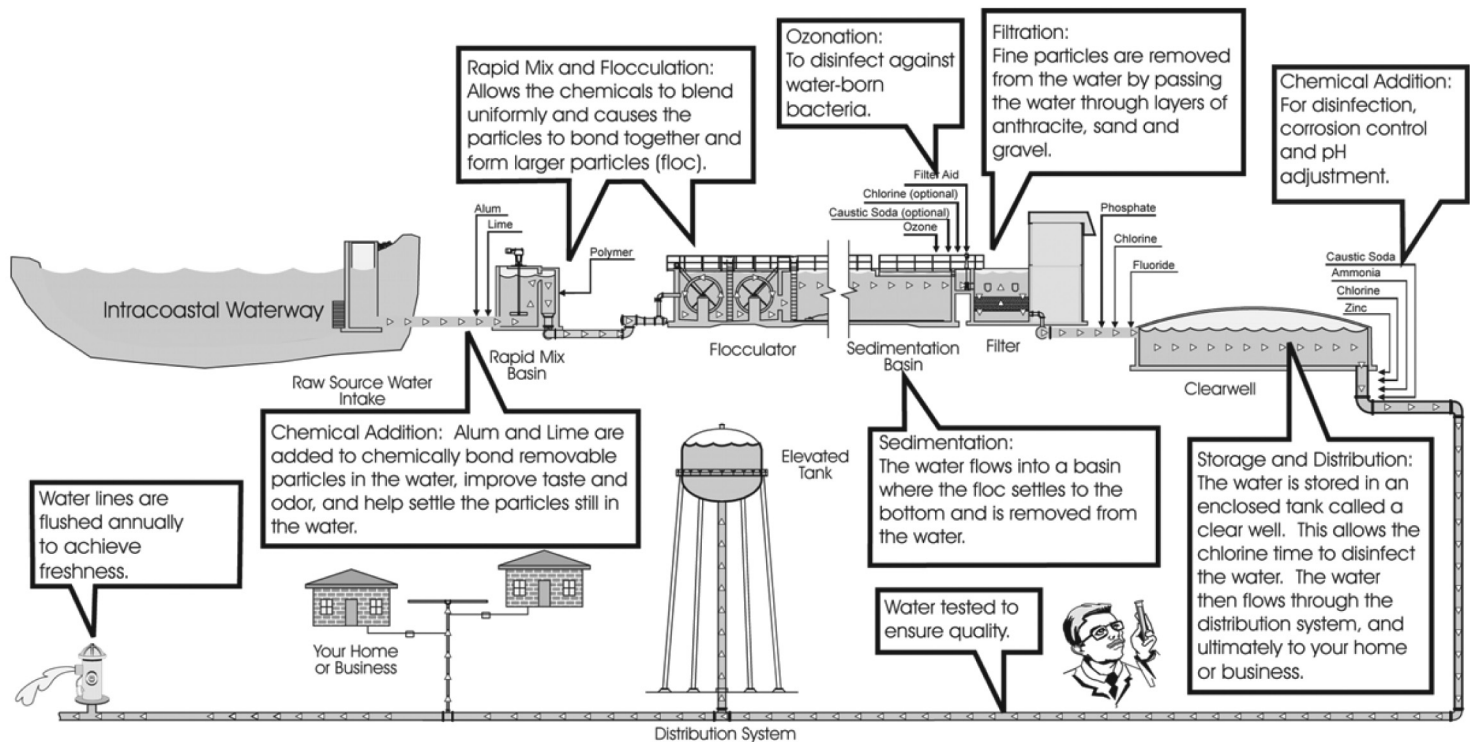
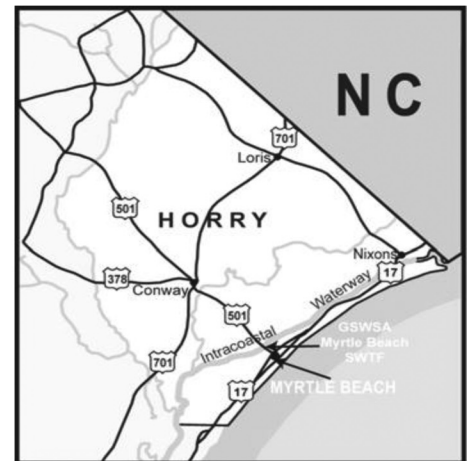
## Myrtle Beach water meets or exceeds all drinking water standards!

### Where has my water been?

The Grand Strand Water and Sewer Authority (GSWSA) Myrtle Beach Surface Water Treatment Facility withdraws and treats water from the Atlantic Intracoastal Waterway. Two major rivers, the Waccamaw and the Pee Dee River, offer an abundance of water very near our Treatment Facility, creating a totally fresh water source.

The illustration below should assist in understanding the process by which your water is treated. The treatment plant is permitted to treat up to 40 million gallons of water daily.

The City of Myrtle Beach is an active member of the American Water Works Association (AWWA), Water Environment Association of South Carolina (WEASC), and the Water Environment Federation (WEF). Through these memberships, our staff is able to stay abreast of current and future issues and regulations to provide a safe supply of drinking water.



## How does my water measure up?

Each day, our staff works to ensure the water delivered to your home meets all regulatory requirements and your expectations for reliability and quality. For your protection, your drinking water is tested for many parameters. The following tables show only the parameters detected in your water during calendar year 2010. We are proud to report there were no violations during that time.

### Microorganisms/Indicators

Parameter	Maximum Containment Level	Highest % Detected	Was MCL Exceeded?	MCLD	Potential Sources
Total Coliform	Less than 5% of total samples positive	0% positive samples	No	N/A	Naturally present in environment
Turbidity	0.3 (100% of the time)	0.18 NTU*	No	1.0	Soil Runoff

\*Met MCL 100% of the time

### Inorganic Chemicals

Parameter	MCL	Highest Level Detected	Range Detected	Was MCL Exceeded?	Maximum Contaminant Legal Goal	Potential Sources
Fluoride(ppm)	2*	0.90	N/A	No	4	Water additive promotes strong teeth
Nitrate (ppm)	10	0.20	N/A	No	10	Erosion; runoff from fertilizer
Thallium(ppb)	2.0	0.76	N/A	No	0.50	Leaching from ore-processing sites: Discharge from electronics, glass, and drug factories.

\*EPS's MCL for fluoride is 4 ppm; however, SCDHEC has set a lower level to ensure human health

### Organic Chemicals

Parameter	MCL	MCLG	Treated T.O.C. Average	Range	Violation?	Sample Frequency	Potential Sources
Total Organic Carbon (ppm)	Treatment Technique	N/A	6.04	4.31-8.93	No	Monthly	Naturally present in environment

### Disinfection Byproducts

Parameter	MCL	Highest Level Detected	Range Detected	Was MCL Exceeded?	Maximum Contaminant Level Goal	Potential Sources
Total Trihalomethanes (ppb)	80	42	29.29 - 53.6	No	N/A	By-product of drinking water chlorination
Haloacetic Acids (ppb)	60	28	19.1-38.44	No	N/A	By-product of drinking water chlorination

### Disinfectants

Parameter	MRDL	Average Level Detected	Range Detected	Was NRDL Exceeded?	MRDLG	Potential Sources
Chloramines (ppm)	4	3.01(avg.)	2.70-3.34	No	4	Water additive used to control microbes

### Metals\*

Parameter	Maximum Containment Level	90 <sup>th</sup> Percentile Value**	Number of Sites Exceeding AL	Maximum Containment Level Goals	Potential Sources
Copper(ppm)	AL = 1.3	0.17	0	1.3	Erosion, corrosion of plumbing system

\*Test Results are from 2010\*\*Ninety percent of samples taken must be below the action level

We have been monitored for the Unregulated Containment Monitoring Regulation 2 (UCMR2) in 2010. No detections were noted. If you would like to receive the list of contaminants monitored please contact our customer service representative at (843) 918-2010

## Definitively Speaking...

**ppm (parts per million):** One ppm equals one minute in two years or 1 penny in \$10,000.

**ppb (parts per billion):** One ppb equals one minute in 2,000 years or 1 penny in \$10,000,000.

**mg/l (milligrams per liter):** In water, mg/l means the same as ppm.

**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.

**Inorganic Compounds:** Compounds such as salts, minerals, and metals.

**Trihalomethanes (THMs):** By-product of the disinfection process to kill harmful bacteria.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

**Turbidity:** Turbidity is a measure of cloudiness of the water. It can be an indicator of the possible presence of contaminants. As an example, milk is turbid because you cannot see through it; tea is not turbid because you can see through it.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**MCL Violations:** Violations are rare. When there is a violation of an MCL, the elevated level of the contaminant usually occurs for just a day or so. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**Maximum Residual Disinfectant Level (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 (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.

**Nephelometric Turbidity Units (NTU):** Amount of suspended particles in water.

**Total Organic Carbon (TOC):** TOC measures the amount of organic carbon in water.



Realizing this information is a little difficult to understand, we have included this section to help you with some of our terminology!

## Special Health Concerns

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 providers.

Environmental Protection Agency (EPA) and Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791)

## Why are there Contaminants in the 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 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 (1-800-426-4791).

Contaminants that may be present in raw source water include:

Microbial contaminants, such as viruses and bacteria, which can be contributed through improperly treated wastewater and through the intestines of warm blooded animals.

Inorganic contaminants, 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 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 storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

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.

## Do you still have questions?

If you are experiencing any water quality concerns, please contact our Customer Service Representative at (843) 918-2010. We will be glad to assist you.

You can find more information about drinking water on the EPA's drinking water website ([www.epa.gov/safewater](http://www.epa.gov/safewater)). For more information from the City of Myrtle Beach, please visit the city's internet site ([www.cityofmyrtlebeach.com](http://www.cityofmyrtlebeach.com)).



This report is brought to you by the City of Myrtle Beach.

## Source Water Assessment Plan

The South Carolina Department of Health and Environmental Control has completed and submitted a report containing the source water susceptibility assessment for the City of Myrtle Beach, System Number 2610001. The system is located in Horry County, South Carolina, in the Pee Dee Basin and includes the public supply intake: S26101, which serves a primary population of 30,000. Of the 303 potential contaminant sources (PCSs) in this initial inventory, 208 PCSs had more than one category of contaminants. The inventory includes 149 PCSs with volatile organic compounds (VOCs) 218 PCSs with petroleum products, 168 PCSs with metals, 38 PCSs with nitrates, 45 PCSs with pesticides/herbicides, 27 PCSs with pathogens, no PCSs with radionuclides, and no PCSs with undetermined contaminants. The susceptibility analysis determined 135 PCSs with a high susceptibility ranking, 118 PCSs with a moderate susceptibility ranking, and 50 PCSs with low susceptibility ranking.



*The City of Myrtle Beach Water Division looks forward to continually providing exceptional water quality through research and development and new technology*

## Water – Have You Ever Wondered?



**The average person uses over 100 gallons of water at home each day.  
What can I do to reduce the amount of water I use?**



1. Fix leaky faucets and plumbing joints. A leaky faucet can waste up to 20 gallons Of water per day.
2. Don't run the hose while washing your car. Use a bucket of water and a quick hose Rinse at the end.
3. Install water-saving shower heads or flow resistors.
4. Run only full loads in the washing machine and dishwasher.
5. Shorten your showers. Even one or two minute reduction makes a big difference.
6. Use a broom instead of a hose to clean driveways and side walks
7. Capture tap water. While you wait for hot water to come down the pipes, Catch the flow in a watering can to use later on house plants or your garden.