



Water Quality Report

City of North Myrtle Beach www.nmb.us

System No. 2610011

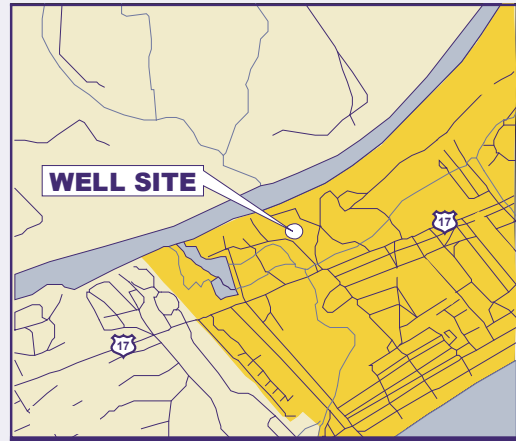
July 2020

North Myrtle Beach's water meets or exceeds all drinking water standards!

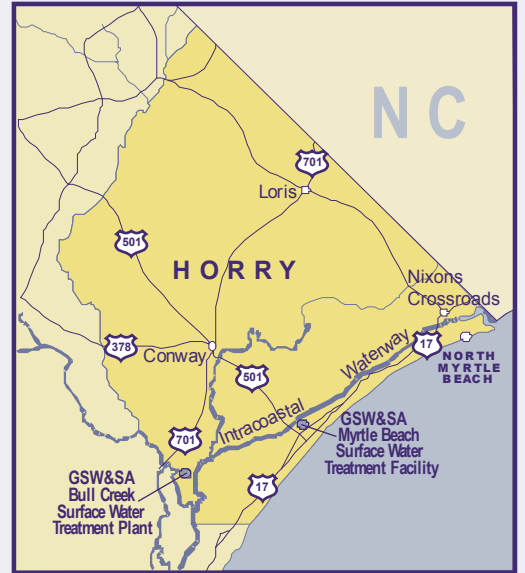
Where does my water come from?

North Myrtle Beach blends water from the Grand Strand Water & Sewer Authority's (GSW&SA) Myrtle Beach Surface Water Treatment Facility and Bull Creek Regional Treatment Facility, and groundwater from a well located in North Myrtle Beach.

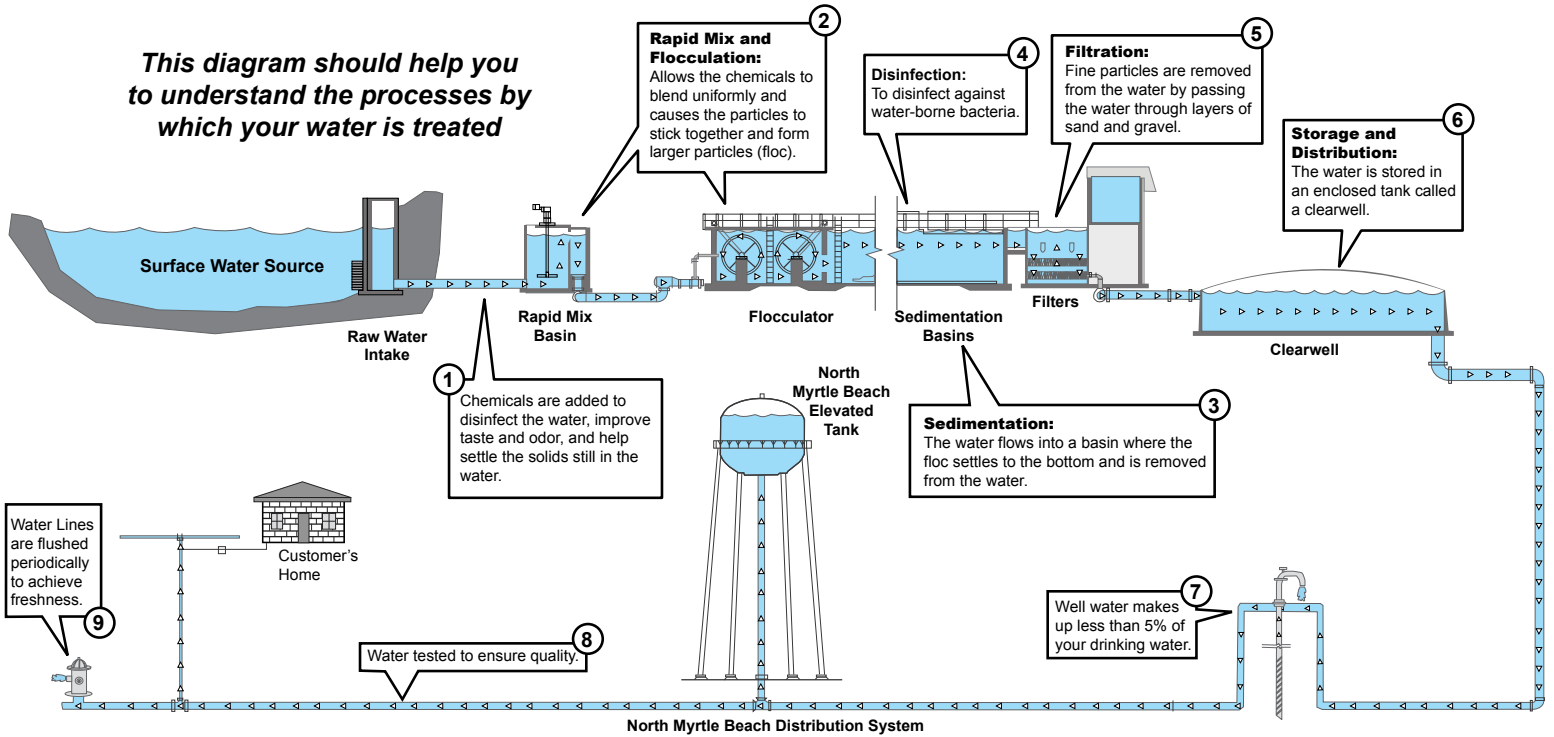
GSW&SA's Myrtle Beach Surface Water Treatment Facility treats water from the Intracoastal Waterway. Several rivers feed into the Intracoastal Waterway including the Waccamaw River and the Pee Dee River. The Intracoastal Waterway is not salt water.



It is a fresh water source. GSW&SA's Bull Creek Regional Treatment Facility treats water from Bull Creek, which is a branch of the Pee Dee River. Bull Creek is located north of the confluence of the Waccamaw and Pee Dee Rivers. The area of the City west of the Intracoastal Waterway at Barefoot Resort is served by Bull Creek water. All other portions are served by blended water from all sources.



This diagram should help you to understand the processes by which your water is treated



About this report...

Each day, our employees work to ensure that the water delivered to your home meets all regulatory requirements and your expectations for safety, reliability and quality. For your protection, the staff at the Water Treatment Facilities test your drinking water for many parameters. In addition, North Myrtle Beach collects fifty samples each month from various locations around the water distribution system to further test the quality of our water. The tables below show only the parameters detected in your water during calendar year 2019.

Why am I getting this report now?

The U.S. Environmental Protection Agency (EPA) requires 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.

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).

Definitions of Terms:

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

Trihalomethanes (THMs) and Haloacetic Acids (HAAs): By-products of the disinfection process.

Volatile Organic Compounds (VOCs): Natural and manmade substances used for a variety of industrial purposes. VOCs vaporize and become airborne.

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

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

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

ND: Not Detected

Nephelometric Turbidity Unity (ntu): Units for measuring turbidity.

Running Annual Average (RAA): A moving average based on the four most recent quarterly averages.

Turbidity: Turbidity is a measure of the 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.

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.

MCL Violations: Violations are rare. When there is a violation of a 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 disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary to control microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of 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.

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

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

µg/L (micrograms per liter): In water, µg/L means the same as ppb.

ppt (parts per trillion): One ppt equals one penny in \$10 billion.

ng/L (nanograms per liter): In water, ng/L means the same as ppt.

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

In order 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Source Water Assessment

SCDHEC has conducted an assessment of the City of North Myrtle Beach groundwater source as well as the source waters of our wholesale water supplier (Grand Strand Water & Sewer Authority). The assessments include a list of all potential contamination sources. Information about Source Water Assessments and whom to contact to read the report is available on the internet at <http://www.dhec.sc.gov/HomeAndEnvironment/Water/SourceWaterProtection/>. If you do not have internet access, but would like to make arrangements to view the Source Water Assessment Report, please feel free to contact us at (843) 280-5500.

For People with 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 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/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).

Any Questions?

To know more about the quality of your drinking water, please contact the City of North Myrtle Beach Public Works Department at (843) 280-5500. City Council meets the 1st and 3rd Monday of each month at 7:00 pm in the City Council Chambers at the Municipal Complex. For additional information on City Council meetings, visit the City's website at www.nmb.us. Find more information about drinking water on the EPA's drinking water web site at <https://www.epa.gov/ground-water-and-drinking-water>.

About 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. The City of North Myrtle Beach 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 drinking water, you may wish to have your water tested. Information is available from the Safe Drinking Water Hotline or at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.

Microorganisms/Indicators

| Parameter | Treatment Requirement | Levels Detected | Violation? | Potential Sources |
|----------------|---|--|------------|----------------------------------|
| Turbidity | 95% of combined filter effluent samples less than 0.3 ntu and no single sample >1.0 ntu | 95% less than 0.3 ntu; highest single sample of 0.094 ntu ³ | No | Soil runoff |
| Total Coliform | ≤ 1 sample that is positive | 0 positive samples | No | Naturally present in environment |

Inorganic Contaminants

| Parameter | MCL | MCLG | Highest Level Detected | Violation? | Potential Sources |
|-----------|--------|--------|---|------------|--|
| Fluoride | 2 ppm* | 2 ppm* | 0.31 ppm ¹ 0.20 ppm ² 1.8 ppm ³ | No | Erosion; discharge from fertilizer; drinking water additive to prevent tooth decay |
| Nitrate | 10 ppm | 10 ppm | 0.12 ppm ¹ 0.06 ppm ² 0.6 ppm ³ | No | Erosion; runoff from fertilizer; leaching from septic tanks |

* EPA's MCL and MCLG for fluoride is 4 ppm. However, SC DHEC has set a lower level to ensure human health. ** Based on most recent sample results (2018).

Synthetic Organic Chemicals

| Parameter | MCL | MCLG | Highest Level Detected | Violation? | Potential Sources |
|-----------|---------|---------|------------------------------|------------|---|
| Atrazine | 3 ppb | 3 ppb | 0.83 ppb ³ | No | Runoff from herbicide used on row crops |
| Dalapon | 200 ppb | 200 ppb | 1.3 ppb ¹ | No | Runoff from herbicide used on rights of way |

Organics Removal

| Parameter | MCL | Required % TOC Removal | Level Detected | Range | Sample Frequency | Violation? | Potential Sources |
|----------------------|-----|------------------------|--|---|------------------|------------|---|
| Total Organic Carbon | TT | 50% ³ | 4.16% ² 62.5% ³ | 2.90 – 5.36% 45.5 – 73.4% ³ | Monthly | No | Decaying organic materials in environment |

Disinfectants

| Parameter | MRDL | MRDLG | Highest Compliance Value | Range of Monthly Averages | Violation? | Potential Sources |
|----------------------|-------------|-------|-----------------------------------|-------------------------------------|------------|--|
| Chlorine/Chloramines | 4 ppm (RAA) | 4 ppm | 2.0 ppm ¹ (RAA) | 1.35 – 2.73 ppm ¹ | No | Drinking water additive used to control microbes |

Disinfection Byproducts

| Parameter | MCL | MCLG | Highest Compliance Value | Range Detected | Violation? | Potential Sources |
|-----------|---------------|------|------------------------------------|-------------------------------------|------------|--|
| Total THM | 80 ppb (LRAA) | N/A | 28.0 ppb ¹ (RAA) | 18.9 – 34.2 ppb ¹ | No | Byproduct of drinking water disinfection |
| HAA5 | 60 ppb (LRAA) | N/A | 25.0 ppb ¹ (RAA) | 1.11 – 34.8 ppb ¹ | No | Byproduct of drinking water disinfection |

Metals

| Parameter | MCL | MCLG | 90th Percentile Value | Number of Sites Exceeding AL | Violation? | Potential Sources |
|-----------|---|-------|------------------------------|------------------------------|------------|---------------------------------------|
| Copper | AL = 1.3 ppm (based on 90th percentile) | 0 ppm | 0.19 ppm ¹ | 0 ¹ | No | Erosion; corrosion of plumbing system |
| Lead | AL = 15 ppb (based on 90th percentile) | 0 ppb | 0.58 ppb ¹ | 0 ¹ | No | Erosion; corrosion of plumbing system |

* Based on 90th Percentile

Radioactive Parameters

| Parameter | MCL* | Level Detected | Violation? | Potential Sources |
|---|----------|----------------------------------|------------|--|
| Beta/photon emitters (MCL is 4 mrem/yr) | 50 pCi/L | 3 pCi/L ^{***3} | No | Decay of natural and man-made deposits |
| Alpha Emitters | 15 pCi/L | 9.67 pCi/L ^{**2} | No | Erosion of natural deposits |

*The MCLG for Alpha Emitters is 0 pCi/L. **Based on most recent sample results (2009). ***Based on most recent sample results (2013).

Notes for all tables

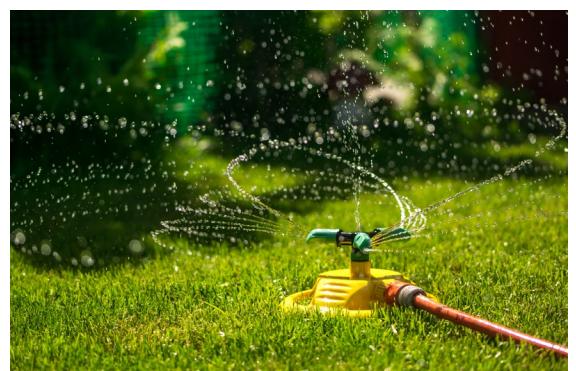
¹ North Myrtle Beach Data | ² Grand Strand Water & Sewer Authority (Myrtle Beach Surface Water Treatment Plant) | ³ Grand Strand Water & Sewer Authority (Bull Creek Regional Water System)



Watering Your Lawn Wisely

Here are some tips for watering your lawn in the summer:

- Use rain gauges or weather data to track how much weekly water nature provides, then supplement only as needed.
- Monitor how much water your sprinklers provide; don't guess. Set up water gauges or 1-inch deep cans (tuna cans work well). Measure the sprinkler water you collect in 15 minutes to determine how long it takes to supply 1 inch of water.
- Use watering systems that stay close to the ground. Arcing sprinklers waste more water than systems with low trajectories.



Unregulated Contaminant Monitoring Rule (UCMR)

Unregulated contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. Below are required monitoring results for unregulated parameters.

GSW&SA - Bull Creek Water Plant

| Parameter | Average Concentration | Range of Concentrations | Source of Contaminant |
|-----------------------------------|-----------------------|-------------------------|---|
| 1,4-Dioxane | 0.120 µg/L | 0.089-0.153 µg/L | Used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics, and shampoos. |
| Chlorate | 243 µg/L | 170-390 µg/L | Agricultural defoliant or disiccant; disinfection byproduct. |
| Chromium | 0.32 µg/L | 0.32 µg/L | Naturally-occurring element; used in making steel and other alloys. |
| "Hexavalent Chromium (Dissolved)" | 0.076 µg/L | 0.043-0.120 µg/L | Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservations. |
| Strontium | 55 µg/L | 49-60 µg/L | Naturally-occurring element. |
| Vanadium | 0.98 µg/L | 0.34-1.4 µg/L | Naturally-occurring elemental metal. |

GSW&SA - Myrtle Beach Water Plant

| Parameter | Average Concentration | Range of Concentrations | Source of Contaminant |
|-----------------------------------|-----------------------|-------------------------|---|
| Chlorate | 433 µg/L | 320-580 µg/L | Agricultural defoliant or disiccant; disinfection byproduct. |
| Chromium | 0.28 µg/L | 0.22-0.34 µg/L | Naturally-occurring element; used in making steel and other alloys. |
| "Hexavalent Chromium (Dissolved)" | 0.062 µg/L | 0.035-0.094 µg/L | Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservations. |
| Strontium | 70 µg/L | 67-76 µg/L | Naturally-occurring element. |
| Vanadium | 1.45 µg/L | 0.26-2.3 µg/L | Naturally-occurring elemental metal. |

White Point Booster Pump Station

| Parameter | Average Concentration | Range of Concentrations | Source of Contaminant |
|--------------------|-----------------------|-------------------------|---|
| Bromochloromethane | 83 ng/L | 83 ng/L | Used as a fire-extinguishing fluid, an explosive suppressant, and as a solvent in the manufacturing of pesticides |
| Chlorate | 50.5 µg/L | 43-58 µg/L | Agricultural defoliant or disiccant; disinfection byproduct. |
| Chromium | 0.36 µg/L | 0.36 µg/L | Naturally-occurring element; used in making steel and other alloys. |
| Molybdenum | 4.4 µg/L | 4.3-4.5 µg/L | Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservations. |
| Strontium | 150 µg/L | 150 µg/L | Naturally-occurring element. |
| Vanadium | 1.8 µg/L | 1.8 µg/L | Naturally-occurring elemental metal. |

Distribution System

| Parameter | Average Concentration | Range of Concentrations | Source of Contaminant |
|---------------------------------|-----------------------|-------------------------|---|
| Chlorate | 315 µg/L | 200-430 µg/L | Agricultural defoliant or disiccant; disinfection byproduct. |
| Chromium | 0.38 µg/L | 0.38 µg/L | Naturally-occurring element; used in making steel and other alloys. |
| Hexavalent Chromium (Dissolved) | 0.057 µg/L | 0.055-0.058 µg/L | Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservations. |
| Molybdenum | 1.8 µg/L | 1.5-2.0 µg/L | Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservations. |
| Strontium | 95 µg/L | 75-110 µg/L | Naturally-occurring element. |
| Vanadium | 1.7 µg/L | 1.6-1.8 µg/L | Naturally-occurring elemental metal. |