



2015 Annual Drinking Water Quality Report

Town of Wrightsville Beach
Public Works Department
PWS ID#04-65-020 January 2016

Dear Customers

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about your source(s) of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information because informed customers are our best allies. **We want our valued customers to be informed about their water utility.**

What the EPA Wants You to Know

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 (800-426-4791).

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 Town of Wrightsville 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 water, you may wish to have your water tested. Informa-

tion 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 <http://www.epa.gov/safewater/lead>.

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 material, and can pick up substances resulting from the presence of animals or from human activity. 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; and radioactive contaminants, 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Source Water Assessment Program (SWAP)

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina.

The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for the Town of Wrightsville Beach was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized in the table at the right.

The complete SWAP Assessment report for the Town of Wrightsville Beach may be viewed on the Web at: www.ncwater.org/pws/swap. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report

on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name, number, and provide your name, mailing address and phone number. If you

have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098.

It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the system’s potential to become contaminated by PCSs in the assessment area.

Source Name	Susceptibility Rating	Report Date
Well # 1	Higher	July 2015
Well #2	Moderate	July 2015
Well #3	Moderate	July 2015
Well #4	Moderate	July 2015
Well #5	Moderate	July 2015
Well #6	Higher	July 2015
Well #7	Higher	July 2015
Well #8	Moderate	July 2015
Well #11	Moderate	July 2015

The town is proud to report that your water system has had no violations and that your drinking water meets or exceeds all federal and state standards!

Water Quality Data Table of Detected Substances...

Over 150 substances are routinely monitored in your drinking water in compliance with Federal and State laws. The tables shown list all of the drinking water contaminants detected in the last round of sampling for each specified contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the date presented in this table is from testing done January 1 through December 31, 2015.**

The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Thus, some of the data, may be more than one year old.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminants monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.



Extra Note: Maximum Contaminant Levels (MCLs) 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 everyday at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

If you have any questions about this report or concerning your water, please contact Adam Smith at Wrightsville Beach Public Works Department: 910-256-7935.



Microbiological Substances							
Substance (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source		
Total Coli form Bacteria (presence or absence)	N	0	0	One monthly positive	Naturally present in the environment		
Inorganic Substances							
Substance (units)	Sample Date	MCL Violation Yes/No	Your Water AVG.	Range Low - High	MCLG	MCL	Likely Source
Fluoride (ppm)	1/29/15	No	0.233	0.2-0.3	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Sulfate (ppm)	1/29/15	No	8	0 - 25	250	250	Occurs naturally in drinking water
Iron (ppm)	1/29/15	No	.44	0 - 1.56	.30	.30	
Unregulated VOC Substances							
Substance (units)	Sample Date	Your Water	Range Low- High				
All VOC Contaminants	06/13/2014	Not Detected	N/A				
Lead and Copper Substances							
Substance (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source	
Copper (ppm) (90 th percentile)	Jul 2014	1.05 Mg/l	1	1.3 mg/l	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead (ppb) (90 th percentile)	Jul 2014	0.010 Mg/l	2	0	AL = .015	Corrosion of household plumbing systems; erosion of natural deposits	
Radiological Substances							
Substance (units)	Sample Date	Your Water AVG.	Range Low - High	MCLG	MCL	Likely Source of Contamination	
Alpha emitters (pCi/l)	2014 Quarterly Composite	3 pCi/l	Not Detected	0	15	Erosion of natural deposits	
Disinfection By-Product Contaminants (Stage 2 Compliance)							
Disinfectant Byproduct	Year Sampled	MCL Violation Yes/No	Your Water LRAA	Range Low - High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb)							
B01	2015	No	61	38-77	N/A	80	Byproduct of drinking water disinfection
B02	2015	No	57	34-58	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb)							
B01	2015	No	15	12-17	N/A	60	Byproduct of drinking water disinfection
B02	2015	No	14	10-15	N/A	60	Byproduct of drinking water disinfection
Chlorine (ppm)	2015	No	.58	.06-2.20	MRDLG = 4	MRDL = 4	Water additive used to control microbes

Secondary Contaminants, required by the NC Public Water Supply Section, are substances that affect the taste, odor, and/or color of drinking water. These aesthetic contaminants normally do not have any health effects and normally do not affect the safety of your water.

Important Drinking Water Definitions

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (mg/l) - one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water.

Not-Applicable (N/A) – Information not applicable/not required for this particular water system or for a particular rule.

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used

Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL) - The "Maximum Allowed" is 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 "Goal" is 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.

Maximum Residual Disinfection 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.

Maximum Residual Disinfection 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.

Locational Running Annual Average (LRAA) – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

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