TOWN OF OAK ISLAND
WATER QUALITY REPORT – 2023
Oak Island Water System (04-10-020)
Sample Period from 1-1-2023 thru 12-31-2023

The Town of Oak Island is pleased to present this year's Annual Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we take to continually improve the water distribution 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. If you have any questions about this report or concerning your water utility, please contact Tray Bivins @ (910) 201-8007. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regular scheduled meetings. They are held at the Oak Island Town Hall, 4601 E. Oak Island Dr. the second Tuesday of each month at 6:00pm.
To review this report online visit. https://www.OakIslandNC.gov/WaterReport

Water Treatment

Our water source is a purchase water system from Brunswick County, which is treated ground water from Castle Hayne Aquifer, 14 wells approximately 175 ft. deep. The treatment facility is located on NC Highway 211 beside BEMC. Our back up source is surface water from N.E. Cape Fear River above lock and dam #1 at Kings Bluff Pumping Station. In addition, we have two wells for emergency back-up that pump from the Pee Dee Aquifer. Treatment at these facilities consist of chloramines to kill harmful bacteria, protozoan and viruses. Lime is added for softening the water; Polyphosphate is used for corrosion control; Fluoride is added as an aid to prevent tooth decay.

The NC 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 Brunswick County 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 as of October 2017 are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating
Cape Fear River	Moderate
Well # 1, 2, 15, 16,17, 18 and 19	Lower
Well # 3, 5, 6A, 8, 11, 12, and 12A	Moderate

The complete SWAP Assessment Report for the Brunswick County Water System may be viewed on web by typing in on your browser: https://www.ncwater.org/?page=600 Then enter 0410045 To obtain a printed copy of this 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 systems' potential to become contaminated by PCSs in the assessment area.

Customer Tips

Town of Oak Island asks that you use water wisely. By following the recommendations below, you may be able to reduce the amount of water you use.

Ways You Can Conserve Water!

Collect rainwater for outdoor use during the peak summer months, and you can save up to 1,300 gallons of water.

Watering your lawn in the morning saves water from being evaporated by the midday heat and reduces your water bill, too!

When needed, water your lawn one inch, once a week. Place a 6-ounce tuna can on your lawn and stop watering when it's full.

Peak Demand for water is between 5:00 am to 10:00 am and 4:00 pm to 7:00 pm. If irrigation is necessary, irrigate during off peak times. This will help ensure proper water pressure for more efficient irrigation.

Installing a water-efficient showerhead can reduce water consumption by 25% to 60% and save energy.

Check your toilet by using a leak-detection dye tablet; otherwise, you could be wasting about 200 gallons of water a day.

Turn off the water faucet while you brush your teeth and save up to 4 gallons of water per minute.

Replacing older toilets with water-efficient toilets can save 9,000 gallons of water a year.

Washing only full loads of laundry can save an average household more than 3,400 gallons of water each year.

An Energy Star dishwasher is about 25% more efficient than a conventional one, saves about 800 gallons of water per year.

DID YOU 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. Immunocompromised 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

Potential Household Lead Contamination

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. Town of Oak Island 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 (800) 426-4791 or at http://www.epa.gov/safewater/lead>.

Distribution System

The Public Utilities Maintenance Department would like to let you know that we are here to serve you with any of your utility needs 24 hours a day. If you plan to dig and are not sure who to call, we can help. We have all the numbers you will need to contact other utilities for locates. If you have any water quality issues or feel that your meter is not working, please contact our office at (910) 201-8007; we will be glad to work with you to solve any water issues. If you have questions about your backflow device or need it inspected, we can help -- please call (910) 201-8007.

Contact Us :

Office (910) 201-8007

Fax (910) 278-7438

After Hours (910) 278-5011

Town of Oak Island Water Quality Report 2023 Continued:

We routinely monitor for more than 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, (2023) .** 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. Some of the data, though representative of the water quality, is more than one year old.

Terms & abbreviations used in the table below:
• **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.
• **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.
• **Action Level** (AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
• **N/A:** not applicable • **nd**: not detectable at testing limit • **ppb**: parts per billion or micrograms per liter • **ppm**: parts per million or milligrams per liter • **pCi/l**: Pico-curies per liter (a measure of radiation) • **MFP**: million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers • **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

Town of Oak Island Public Utilities Consumer Confidence Report Data

Water Quality Results For 2023

Listed below are the results of water quality sampling performed from January 1, 2023 to December 31, 2023

Questions and Comments: Contact Tray Bivins, Water Superintendent, (910) 201-8007 or tbivins@oakislandnc.gov

Microbiological Contaminants

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	EPA's MCL	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	N	0	0	one positive monthly sample	Naturally present in the environment
Fecal Coliform or E. coli (presence or absence)	N	0	0	0 (Note: The MCL is exceeded if a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive)	Human and animal fecal waste

Asbestos Contaminant

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low	Range High	MCL G	MCL	Likely Source of Contamination
Total Asbestos (MFL)	6-17-2020	N	0	N/A		7	7	Decay of asbestos cement water mains; erosion of natural deposits

Unregulated Inorganic Contaminant (UCMR4)

Contaminant (units)	Sample Date	Your Water (Average)	Range Low	Range High
Manganese by EPA Method 200.8 (ppb)	2019	4.83	*2.3*	*6.7*
Bromochloroacetic acid (BDCAA) (ppb)	2019	.93	.57	1.3
Chlorodibromoacetic acid (CDBAA) (ppb)	2019	.59	.38	.91
Bromochloroacetic acid (BCAA) (ppb)	2019	2.0	.88	8.7
Monobromoacetic acid (MBAA) (ppb)	2019	.71	.0	.71
Dibromoacetic acid (DBAA) (ppb)	2019	1.62	.34	2.9
Trichloroacetic acid (TCAA) (ppb)	2019	3.0	2.1	4.2
Dichloroacetic acid (DCAA) (ppb)	2019	10.9	9	14

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

Town of Oak Island Water Quality Report 2023 Continued:

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppm) (90^{th} percentile)	8-25-2020	0.210	0	1.3	AL=1.3	Corrosion of household plumbing systems
Lead (ppb) (90^{th} percentile)	8-25-2020	0.009	0	0	AL=.015	Corrosion of household plumbing systems

Organic Chemicals

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water (AVG)	Range Low High	MCLG	MCL	Likely Source of Contamination
Total Trihalomethanes Stage 2	N	0.026	0.014 0.057	N/A	Avg. of all sites <80ppb Avg. of individual sites <80	By-product of drinking water chlorination
Total Haloacetic Acids Stage 2	N	0.015	0.013 0.020	N/A	Avg. of all sites <60ppb Avg. of individual sites <60	By-product of drinking water disinfection

Regulated Inorganic Chemicals

Contaminant (units)	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Total Chlorine	N	2.16	0 3.60	4ppm	4ppm	Water Additive used for microbes
Monochloraime	N	2.38	0.18 3.73	4ppm	4ppm	Water Additive used for microbes

Please note that the Town of Oak Island purchases water from Brunswick County Public Utilities.

For a complete view of Brunswick County's Water Quality Report and Public Notices, please visit their website at

http://www.brunswickcountync.gov/DocumentCenter/View/4891/CCR-2023?bidId=

For the latest on GENX / PFAS information please visit

https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.