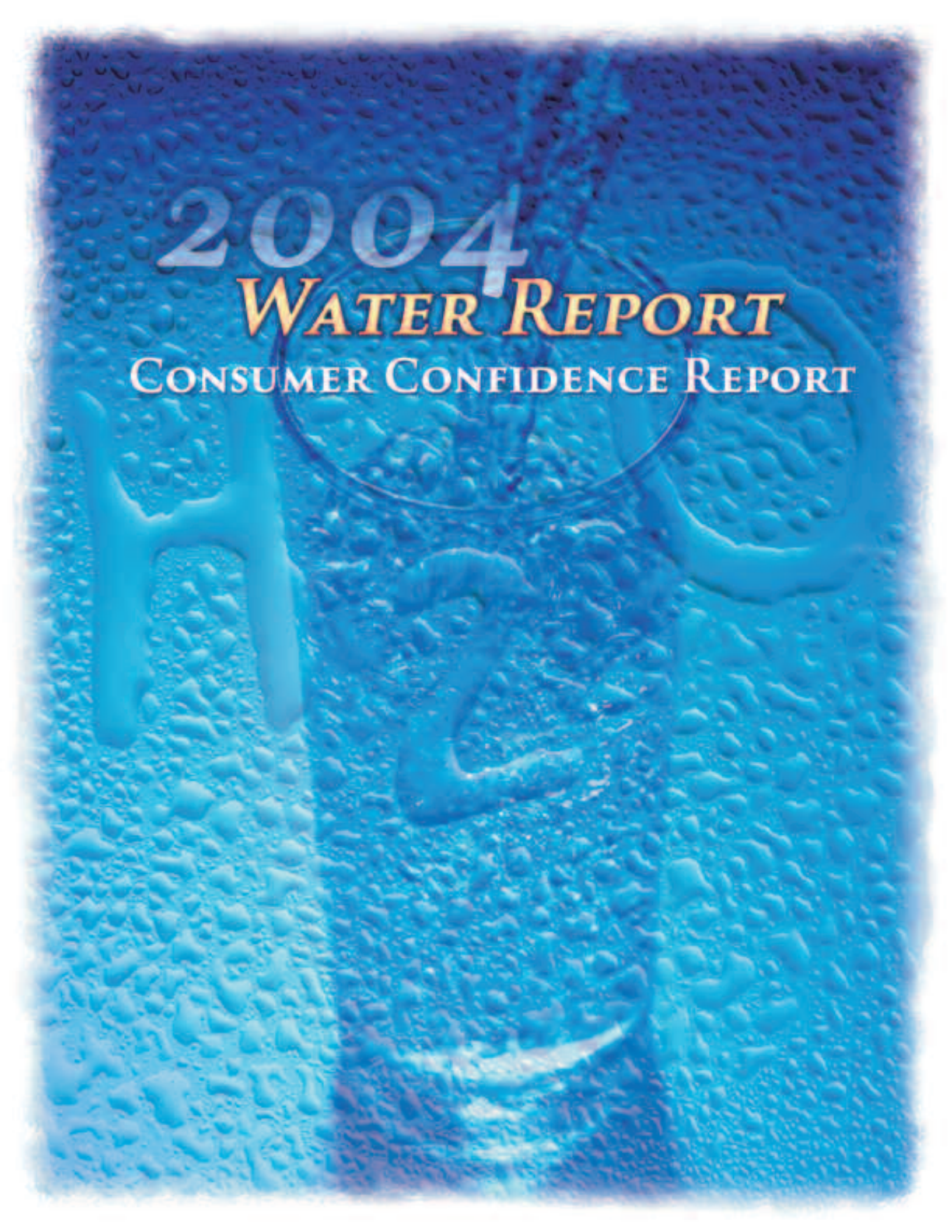
2004
WATER REPORT
CONSUMER CONFIDENCE REPORT

This is Your Annual Report on Drinking Water Quality.

What Are Drinking Water Standards?

Under the authority of the Safe Drinking Water Act (SDWA), EPA sets standards for approximately 90 contaminants in drinking water. For each of these contaminants, EPA sets a legal limit, called a maximum contaminant level, or requires a certain treatment. Water suppliers may not provide water that doesn't meet these standards. Water that meets EPA standards is safe to drink.

En Español:

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

The Safe Drinking Water Act (SDWA), which celebrated its 25th anniversary in 1999, is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The SDWA covers all public water systems with piped water for human consumption with at least 15 service connections or a system that regularly serves at least 25 individuals.

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 simply calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).**

Important Information

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).**

Why Do I Need to Read This?

A survey conducted by the American Water Works Research Foundation in 1993 found that nearly two-thirds of water consumers surveyed said they received "very little" or "no" information on the quality of their water. The water quality reports will increase the availability of information. Informed and involved citizens can be strong allies of water systems, large and small, as they take action on pressing problems. Also, an increase in public awareness can give sensitive sub-populations the information that they need to protect themselves. Drinking water can come from either ground water sources (via wells) or surface water sources (such as rivers, lakes, and streams).

Nationally, most water systems use a ground water source (80%), but most people (66%) are served by a water system that uses surface water. This is because large metropolitan areas tend to rely on surface water, whereas small and rural areas tend to rely on ground water. In addition, 10-20% of people have their own private well for drinking water.

Where Can I Get More Information?

Information on water quality in your area is available from several sources, including your local public health department and your water supplier. You can determine whom to contact by checking your water bill or by calling your local town hall. You can also contact your state drinking water program or call EPA's Safe Drinking Water Hotline at 1-800-426-4791. EPA has also prepared a citizen's guide to drinking water called **"Water on Tap: A Consumer's Guide to the Nation's Drinking Water."**

Terminology

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, stormwater runoff, and residential uses.
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts 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 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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.

2004 Annual Drinking Water Quality Report

Town of Nags Head Water District

(Public Water Supply ID#04-28-010)

The Town of Nags Head, Water Operations Division is 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 from where your water comes, 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.

What 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 microbiological contaminants are available from the **Safe Drinking Water Hotline (800-426-4791).**

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 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; 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.

When You Turn on Your Tap, Consider the Source

Our drinking water is purchased from the Dare County Regional Water System. This water originates from three sources. Two water treatment plants operated by the Dare County Regional Water System process **ground** water from wells located in the upper and middle Yorktown Aquifer. The **ground** water from the Upper Yorktown Aquifer is processed from wells located in the Skyco area of Roanoke Island. The **ground** water source from the Mid Yorktown Aquifer is processed from wells located in Kill Devil Hills and Nags Head. The other source of water is a **surface water** source, the Fresh Pond. The Fresh Pond is a 27-acre **surface water** reservoir bisected by the boundary line separating Nags Head from Kill Devil Hills. The Fresh Pond Water Treatment Plant is operated by the Town of Nags Head and processes water to sell to the Dare County Regional Water System.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted an assessment of the drinking water sources across North Carolina. The purpose of the assessment 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 Nags Head is determined by combining the contaminant rating (number and location of PCSs within watershed) and the inherent vulnerability rating (geologic characteristics of the surface water source and the watershed area). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	Source Name	Susceptibility Rating
Fresh Pond	Lower	NRO Well #1	Moderate
Skyco Well #1	Lower	NRO Well #2	Lower
Skyco Well #4	Lower	NRO Well #3	Moderate
Skyco Well #5	Lower	NRO Well #4	Moderate
Skyco Well #7	Lower	NRO Well #5	Moderate
Skyco Well #8	Lower	NRO Well #6	Moderate
Skyco Well #9	Lower	NRO Well #7	Lower
Skyco Well #10	Lower	NRO Well #8	Lower
Skyco Well #11	Lower	NRO Well #9	Moderate
Skyco Well #12	Lower	NRO Well #10	Moderate
Skyco Well #13	Lower		

The complete SWAP Assessment report for The Town of Nags Head may be viewed on the Web at: http://www.deh.enr.state.nc.us/pws/swap. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email request to swap@ncmail.net. Please indicate your system name, PWSID, 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 **919-715-2633**.

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 PCS's in the assessment area.

Violations that Your Water System Received for the Report Year

The Town of Nags Head sampled for Inorganics on July 28, 2004 however, the lab failed to submit those results to the State within the required reporting period causing us to receive a Reporting Violation from Public Water Supply. Detections found during that analysis can be found in the Inorganics Contaminant table that follow. None of the detected contaminants were over the allowable limits.

During 2004, or during any compliance period that ended in 2004, Dare County received one (1) Maximum Contaminant Level (MCL or also known as Tier II) violation for exceeding the limit for Arsenic during the second quarter of 2004. Our customers should have already received the Public Notices about this violation.

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

What If I Have Any Questions Or Would Like to Become More Involved?

If you have any questions about this report or concerning your water utility, please contact **Nancy Carawan at (252) 449-4210.** We want our valued customers to be informed about their water utility.

Important Definitions:

Not-Applicable (N/A) – information not applicable/not required for that particular water system or for that 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.
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 – 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.
Nephelometric Turbidity Unit (NTU) – nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT) – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level – The "Maximum Allowed" (MCL) 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 – The "Goal" (MCLG) 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.

Extra Note: 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.

Water Quality Data Table of Detected Contaminants

We routinely monitor for over 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, 2004.** 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.

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. If you notice something unusual or out of the ordinary, please contact us. As always, we welcome your questions and concerns.

Test Results Water Quality Reports for Dare County and Nags Head Water System

Note: Dare County is represented by * and Nags Head by **.

Contaminant (Units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants					
Total Coliform Bacteria *(presence or absence)*	N	1 (Sept '04)	0	one monthly positive	Naturally present in the environment
Fecal Coliform or E. coli *(presence or absence)*	N	0	0	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
Turbidity – Systems with population <10,000					
Turbidity (NTU)	N	.30 100%	N/A	TT = 5 NTU TT = percentage of samples < 0.5 NTU	Soil runoff

** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Beginning January 2005, the turbidity rule will require, for all systems, that 95% or more of the monthly samples must be below 0.3 NTU.* ***Not required by Dare County.***

Contaminant (Units)	Sample Date	MCL Violation Y/N	Your Water	Range (Low/High)	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Arsenic (ppb)	*2004 **2004	*Y **N	6.75 Avg. **ND	N/D / 19 **N/A	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Fluoride (ppm)	*2002 **2004	*N **N	0.92 0.90	*0.86 – 0.97 **N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Manganese (ppm)	*2002 **2004	*N **N	*.017 Avg. **.011	*.014 – .020 **N/A	N/A	.050	Effects 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.
Sulfate (ppm)	*2002 **2004	*N **N	*12.55 Avg. **54	*10.4 – 14.7 **N/A	N/A	500	Effects 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.

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Contaminant (Units)	Sample Date	Your Water	Range (Low – High)	Proposed MCL
Unregulated VOC Contaminants				
Chloroform (ppb)	*2004 / **2004	*.6avg / **8.5	*ND-1.2 / **NA	
Bromodichloromethane (ppb)	*2004 / **2004	*ND / **15.9	*NA / **N/A	
Bromoform (ppb)	*2004 / **2004	*4.65avg / **4.6	*ND-9.3 / **N/A	
Chlorodibromomethane (ppb)	*2004 / **2004	*.65avg / **17.1	*ND-1.3 / **N/A	

Contaminant (Units)	Sample Date	Your Water	# Sites Above AL	MCLG	MCL	Likely Source of Contamination
Lead and Copper Contaminants						
Copper (ppm) *(90th percentile)*	*2003/**2002	*.393/**.78	*0/**0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) *(90th percentile)*	*2003/**2002	*3/**ND	*1/**0	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Contaminant (Units)	Sample Date	MCL/TT Violation (Y/N)	Your Water	Range (Low/High)	MCLG	MCL	Likely Source of Contamination
Radiological Contaminants							
Beta/photon emitters (pCi/l)	*2003/**2003	*N/**N	*7.75 Avg/**2.45 Avg	*5.5–10/**ND–4.9	0	50	Decay of natural and man-made deposits
Radium 228 (pCi/l)	*2003/**2003	*N/**N	*ND/**1.3		0	2	Erosion of natural deposits
Uranium (pCi/l)	*2003/**2003	*N/**N	*1.3 Avg/**ND	*ND–2.5/**N/A	0	20.1	Erosion of natural deposits
Disinfection By-Product Precursors Contaminants							
Total Organic Carbon (ppm) (TOCs)-RAW	2004	N	6.23	5.6-7.8	N/A	TT	Naturally present in the environment
Total Organic Carbon (ppm) (TOCs)-TREATED	2004	N	3.99	3.4-5.3	N/A	TT	Naturally present in the environment

Note: Depending on the TOC in our source water, the system MUST have a certain % removal of TOC or must achieve alternative compliance criteria. If we do not achieve that % removal there is an "alternative % removal". If we fail to meet that, we are in violation of a Treatment Technique. Not required for Dare County. Our water used Step 1 as the method to comply with the D/DBP treatment technique requirements.

Disinfection By-Product Contaminants							
TTHM (ppb) [Total Trihalomethanes]		*N/**N	*52.35/**52.81	*14-126/**13-99	N/A	80 or 100	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]		*N/**N	*8.59/**20.25	*0-40/**4-70	N/A	60	By-product of drinking water disinfection
Chlorine (ppm)		*N/**N	*.76/**1.13	*.21-1.72/**.16-2.0	MRDLG = 4	MRDL = 4	Water additive used to control microbes

Radon

Dare County has detected Radon in the finished water supply (2001). The running average of water tests was less than 53.6 pCi/L. There is no Federal Regulation for radon in drinking water. Exposure to air-transmitted radon over long periods of time may cause certain adverse health effects. *Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/l) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your State radon program or call EPA's Radon Hotline (800-SOS-RADON).*

**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 regulation is warranted. If you would like more information on unregulated chemicals, you may call the EPA Hotline at 1-800-426-4791.*