Water Quality Report...

2004 Annual Drinking Water Quality Report
Currituck County Water

PWS ID# 04-27-010

The Currituck County Water Department is pleased to report that the County's drinking water is safe and meets all federal and state requirements.

In an effort to keep customers informed, the Water Department is providing the following information concerning water quality. Included are details on water sources, what it contains, and how it compares to standards set by regulatory agencies. The department's goal is to provide you with a safe and dependable supply of drinking water and help customers understand the efforts made by staff to continually improve the water treatment process and protect water resources.

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 microbiological contaminants are available from the Safe Drinking Water Hotline.

The 2004 Annual Drinking Water Quality Report shows that Currituck County's water is safe and meets federal and state guidelines.

For additional information about water quality, call the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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…

The water that is used by this system is 28 groundwater wells located off Maple Road and drawing from the Yorktown Aquifer. Currituck County obtains processed water from the South Camden Water Plant to supplement our water supply. This water is blended at the Currituck Water plant with our water for distribution.

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 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 Currituck County Water 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 below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating
Currituck Wells 3,6,8,9,14,26	Lower
Currituck Wells 1,2,4,5,7,10,11,12,13,15,16,17,18, 19,20,21,22,23,24,25,27,28	Moderate
South Camden Shallow Wells 1,2	Moderate
South Camden Deep Wells 1,2	Lower

Jones part of team that ensures quality water to Currituck County citizens

Visitors to the Currituck County Mainland Water Plant will see two walls lined with numerous framed certificates. These "water walls," as the plant operators call them, reflect thousands of hours of training and certifications achieved by employees.

Jones and the other plant operators test samples daily to ensure water is free of contaminants.

Yama Jones is one of the plant operators whose name appears on many of those certificates. He has obtained the "A Well" water operator certification, which is the highest certification for North Carolina. In addition, he will test for the "A Distribution" certification this coming May.

"I've put in a lot of hours, trying to improve myself in my job," Jones said. "I try to do the best job I can."

Jones began employment with Currituck County in 1989. Over the years, he has worked for the maintenance, solid waste, and animal control departments. In 1996, Jones was hired as a meter reader for the water department. He used his off hours to study and work towards a water plant operator's certificate, which he obtained in 1997.

"Training and education are important," said Jones. "The state's standards for water quality are very stringent…we always have to stay on our toes so we can deliver the best product possible."

Jones is one of four water operators who work at the Mainland Water Plant that is located on Maple Road. Dennis Curtis, the Chief Operator, and other employees maintain and operate the 28 groundwater wells and processing equipment that provide water to customers.

"We have an exceptionally good staff," said Leland Gibbs, Water Department Superintendent. "Our operators are very conscientious. They spend many hours training and working to obtain certifications."

Gibbs explained that Yama is an employee who continually goes above and beyond. "He is always ready and willing to do whatever is needed," he said.

Jones explained that plant operators are responsible for testing water samples every day for a variety of contaminants and bacteria. More intensive tests are conducted on a monthly basis, with samples sent to a lab in Elizabeth City.

Water from the mainland plant continually meets all federal and state water quality standards.

"People buy a lot of bottled water," said Jones. "But what they don't realize is that bottled water is not held to as strict of standards as the water we filter here at our plant. We deliver a good, safe product that is pleasing to the palate. That's our goal."

Jones says he will continue to train and hopefully add even more certificates to the "water wall." It's his mission, he says, to "do the best job I can possibly do."

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The complete SWAP Assessment report for Currituck County Water 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 system's potential to become contaminated by PCSs in the assessment area.

Violations that Your Water System Received for the Report Year...

During 2004, or during any compliance period that ended in 2004, Currituck **did not** receive a violation.

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, please contact Leland Gibbs at Currituck County Water 453-2155. To learn more, please attend any of our regularly scheduled monthly meetings; please call for an appointment.

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.

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.

Important Drinking Water 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.
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: 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 every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Currituck County Water Facts...

- Again this year, Currituck County's water met all federal and state requirements for water quality. Water is tested daily by plant operators.
- The average family of four pays less than 1/2 cent per gallon for clean, fresh water delivered to their home.
- The Water Department staff handles 6,524 active accounts; this reflects a customer base increase of 553 accounts for 2004.
- The department processed a total of 66,248 water bills during 2004. This includes accounts for mainland and Currituck Outer Banks customers.
- This past year, a total of 53,304 meters were read; this reflects an increase of 3,324 meters since 2003.
- The Water Distribution staff maintains and repairs the water lines that deliver over 310 million gallons of water to customers each year.
- The County's water source is 28 groundwater wells located off Maple Road, drawing from the Yorktown Aquifer. Currituck also purchases some water from Camden County.
- The Water Plant operates an average of 15 hours per day, seven days per week.
- In 2005, the Water Department will implement an online payment system for water bills.

CURRITUCK WATER CCR RESULTS 2004

Unregulated Inorganics Contaminant

Contaminant (units)	Sample Date	Your Water	Range Low	Range High	Proposed MCL
Sulfate (ppm)	6/14/04	9mg/L	N/A		500

Unregulated VOC Contaminants

Contaminant (units)	Sample Date	Your Water	Range Low	Range High
Chloroform (ppm)	12/1/04	.00417 mg/L	N/A	
Bromodichloromethane (ppm)	12.1/04	.0131 mg/L	N/A	
Bromoform (ppb)	12/1/04	.0283 mg/L	N/A	
Chlorodibromomethane (ppm)	12/01/04	.0427 mg/L	N/A	

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MBLG	MCL	Likely Source of Contaminate
Copper (ppm)	8/13/02	.486mg/L	0	1.3	AL=1.3	Corrosion of household plumbing systems, erosion of natural deposits: leaching from wood preservatives
Lead (ppm) (90th percentile)	8/13/02		0	0	AL=1.5	Corrosion of household plumbing systems, erosion of natural deposits

Disinfection By-Product Contaminants

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water (AVG)	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
TTHM (ppm) (Total Trihalomethans)	N	.057mg.L	N/A		N/A	.080	By-product of drinking water chlorination
HAA5 (ppm) (Total Haloacetic Acids)	N	.0044mg.L	N/A		N/A	.060	By-product of drinking water disinfection

SOUTH CAMDEN WATER CCR RESULTS 2004

Disinfection By-Product Contaminants

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water (AVG)	Range Low	Range High	MCLG	MCL	Likely Source of Contamination
TTHM (ppm) (Total Trihalomethans)	N	.055	N/A		N/A	.080	By-product of drinking water chlorination
HAA5 (ppm) (Total Haloacetic Acids)	N	.049	N/A		N/A	.060	By-product of drinking water disinfection
Chlorine (ppm) (Total Haloacetic Acids)	N	.76	.64	.87	MRDLOG=4	MRDL=4	Water Additive Used to Control Microbes

Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL
Copper (ppm) (90th percentile	7/28/04	/101	0	1.3	AL=1.3
Lead (ppb) (90th percentile)	7/28/04	<3	1	0	AL=15

UnregulatedVOC Contaminants

Contaminant (units)	Sample Date	Your Water
Bromoform (ppb)	1/05/04	3.2
Bromoform (ppb)	4/13/04	2.7
Bromoform (ppb)	8/19/04	44.0
Bromodichloromethane (ppb)	8/19/04	2.0
Chlorodibromomethane (ppb)	1/05/04	1.2
Chlorodibromomethane (ppb)	4/13/04	1.2
Chlorodibromomethane (ppb)	8/19/04	9.0