APPENDIX J
2007 City of Chesapeake
Water Quality Report

What's New?

EPA REGULATORY INITIATIVES

Arsenic

Arsenic is a naturally occurring mineral in soil, water, air, plants, and animals. Studies have linked long-term, chronic exposure to arsenic in drinking water to cancer. Compliance with the 10 ppb MCL was required in January, 2006. Water providers must include health information and arsenic concentrations in annual reports for water that exceed 5 ppb (one-half of the MCL). We are pleased to report that the levels of arsenic in any of Chesapeake's public water systems are well below the MCL.

Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)

This rule became final on January 5, 2006. It was developed to improve drinking water quality and provide additional protection from disease-causing microorganisms and contaminants that can form during drinking water treatment. Pathogens, such as Giardia and *Cryptosporidium,* are often found in raw water, and can cause gastro-intestinal illness and other health risks. *Cryptosporidium* is a significant concern in drinking water because it can contaminate surface water such as drinking water sources. It is resistant to chlorine and other disinfectants, and can cause waterborne disease outbreaks.

The purpose of LT2 rule is to reduce the risk associated with *Cryptosporidium* and other pathogenic microorganisms in drinking water. Northwest River Water Treatment Plant (NWRWTP) has voluntarily tested its source water quarterly since 1994. To comply with the rule NWRWTP and LGWTP started this monitoring for *Cryptosporidium,* E. coli, and turbidity in October 2006. This monitoring period will be completed by September 2008.

Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 D/DBPR)

This rule was developed to improve drinking water quality and to provide additional monitoring from disinfection byproducts. Disinfection is required to provide healthy drinking water. However, disinfectants like chlorine and bromate can react with naturally occurring materials in the water to form byproducts such as, Trihalomethanes (THM) and Haloacetic Acids (HAA). Under the Stage 2 D/DBPR, all drinking water systems must conduct an evaluation of their distribution systems, known as an Initial Distribution System Evaluation (IDSE), to identify the locations with higher disinfection byproduct concentrations. These locations will then be used by the systems as the sampling sites for Stage 2 D/DBPR compliance monitoring.

Compliance with the maximum contaminant levels for two groups of disinfection byproducts (TTHM and HAA5) will be calculated for each monitoring location in the distribution system. This approach, referred to as the Locational Running Annual Average (LRAA), differs from previous requirements that determined compliance by calculating the running annual average of samples from all monitoring locations across the system. Sampling all three systems every other month began in July 2007.

Postal Customer

Chesapeake VIRGINIA

Department of Public Utilities
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Chesapeake, VA 23328

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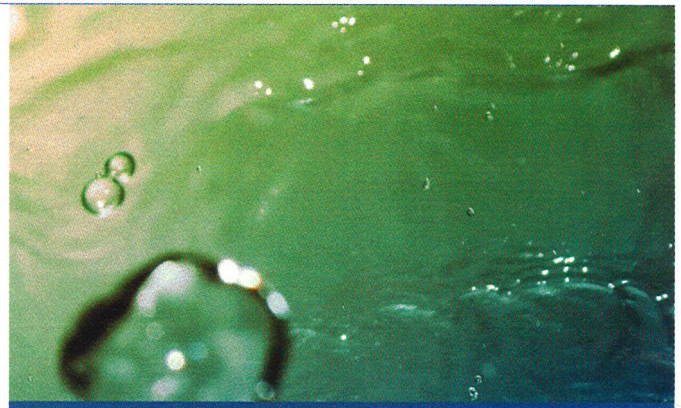
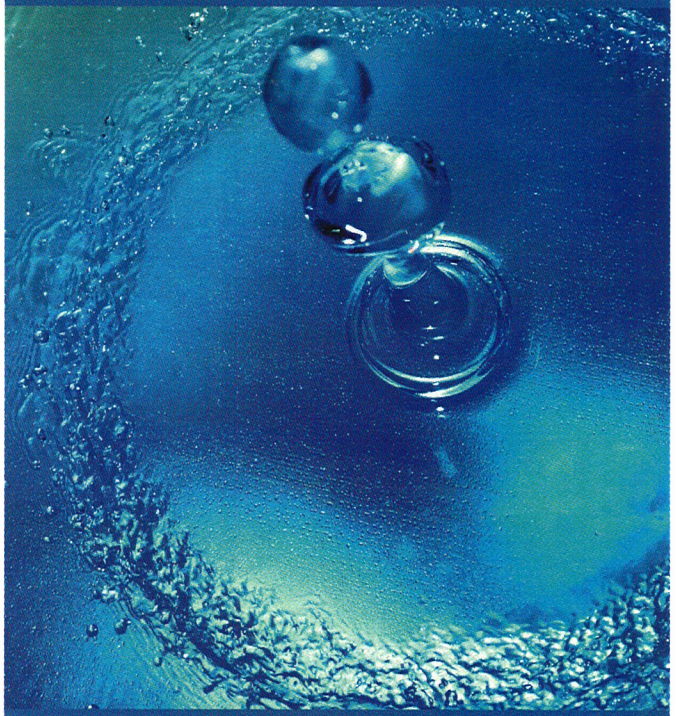


2007 WATER QUALITY REPORT

City of Chesapeake
Department of Public Utilities



Chesapeake VIRGINIA

WATER...FOR TODAY AND TOMORROW

Want More Information?

If you have any questions about this report or need more information, please contact the Water Quality Laboratory at 757-382-3550. The following telephone numbers are provided for specific issues or questions:

Customer Service (billing)	**757-382-6352**
Laboratory (water quality)	**757-382-3550**
Water Quality Hot Line	**757-382-6360**

Visit our web site for online information at www.CityofChesapeake.net then click on Public Utilities. Contact us by E-mail at water@cityofchesapeake.net.

Our Business Office is located at City Hall, second floor, 306 Cedar Road, Chesapeake, VA 23322. It is open from 8:00 a.m. to 5:00 p.m., Monday through Friday. Address correspondence to Chesapeake Department of Public Utilities, P.O. Box 15225, Chesapeake, VA 23328.

Public Utilities Director	James K. Walski, P.E.
Public Utilities Assistant Director	William J. Meyer, Jr., P.E.
Financial/Customer Service Administrator	Markiella A. Moore
Utility Engineer	S. Dean Perry, P.E.
Water Resources Management Administrator	A. Craig Maples

Water Works Permit Identification Numbers
Northwest River System (including the Lake Gaston Water Treatment Plant) – PWSID 3550051
South Norfolk System – PWSID 3550052
Western Branch System – PWSID 3550050

Public Participation
Public Utilities is an enterprise department and is funded by customer fees, not taxes. However, it is part of the City of Chesapeake government. Our legislative body is the Chesapeake City Council, which holds hearings on budget and other financial matters, approves contracts, and considers ordinances that create or amend local laws. Some of these matters affect the operation of Public Utilities. The City Council meets on the 2nd, 3rd and 4th Tuesdays of each month at 6:30 p.m. in the City Council Chambers, First Floor of the City Hall Building, 306 Cedar Road. The meetings are televised live on WCTV Channel 48, the local government access cable channel, and on the City web site, www.CityOfChesapeake.net. Agendas for upcoming meetings are available on the City web site, or may be requested from the City Clerk's office at 757-382-6151.

INFORMATION FOR SPECIAL POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer and undergoing chemotherapy, persons who have undergone an organ transplant, persons 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. The Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Act Hotline at 1-800-426-4791.

INFORMATION ABOUT SOURCE WATER

A detailed source water assessment was conducted in 2001 by the Hampton Roads Planning District Commission. The Northwest River, like other surface water sources, was determined to have a high susceptibility to contamination. Our deep wells, like other groundwater sources, were determined to be low in susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The report consists of maps showing the source water assessment area, an inventory of known land use activities of concern, and documentation of any known contamination within the last 5 years. The report is on file at the Public Utilities Department.

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. Substances that may be present in source water include: (1) microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (2) 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; (3) pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; (4) organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial process and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; (5) radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure the tap water is safe to drink, the EPA prescribes regulations that limit the amount of contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the similar protection for public health.

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 at 1-800-426-4791 or accessing the EPA web site at www.epa.gov/safewater/.

2007 WATER QUALITY TABLE

The table contains the highest level and range, if available, detected by analyses performed in calendar year 2007, or the most recent testing in accordance with the regulations. An additional 180 compounds were tested for and not detected.

REGULATED SUBSTANCES

Substance (Unit)	MCL	MCLG	NWR & Range	N Highest & Range	P Highest & Range	Likely Source	Meets EPA Stds.
Antimony (ppb)	6	6	0.06 ND - 0.06	ND	ND	Discharge from petroleum refineries, fire retardants; ceramics, electronics, solders.	Yes
Arsenic (ppb)	10	NA	0.3 ND - 0.3	ND	ND	Erosion of natural deposits, runoff from orchards, glass and electronics production wastes.	Yes
Barium (ppb)	2000	2000	24 ND - 24	59 27 - 59	26 N/A	Erosion of natural deposits; discharge from metal refineries.	Yes
Chlorine, Total (ppm) *highest quarter avg.	MRDL 4	MRDLG 4	2.82* 0.07 - 4.34	2.75* 0.02 - 3.90	2.62* 0.01 - 3.32	Water additive used to control microbes.	Yes
Chromium (ppb)	100	100	ND	2 ND - 2	1 N/A	Erosion of natural deposits.	Yes
Dalapon (ppb)	200	200	ND	1.5 ND - 1.5	ND	Herbicide runoff.	Yes
Hexachlorocyclopentadiene (ppb)	50	50	ND	0.1 ND - 0.1	ND	Pesticide component from runoff.	Yes
Nickel (ppm)	50	50	ND	2 ND - 2	ND	Pesticide component from runoff.	Yes
Nitrate (ppm)	10	10	0.22 0.04 - 0.22	0.4 0.1 - 0.4	ND	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.	Yes
Total Organic Carbon [TOC] (ppm) *lowest annual average	TT (1.00 annual average removal ratio)	NA	1.20* 1.06 - 1.54 (range of individual readings)	2.7* 1.3 - 3.1	2.6 1.8 - 3.2	Naturally present in environment.	Yes
Selenium (ppb)	50	50	0.1 ND - 0.1	ND	ND	Discharge from petroleum and metal refineries, erosion of natural deposits.	Yes
Fluoride (ppm) *highest monthly average	MCL / MCLG 4	NWR Entry Point #1: 1.0*, 0.6 - 1.0 Entry Point #2: 1.0*, 0.8 - 1.1		N 1.0* 0.1 - 1.6	P 0.79 N/A	Naturally present in environment, water additive which promotes strong teeth.	Yes

RADIONUCLIDES

Substance (Unit)	MCL	MCLG	NWR & LG EP #1	NWR & LG EP #2	N	P	Likely Source	Meets EPA Standards
Beta/photon emitters[1] (pCi/L)	50	Zero	3.48 2.3 - 4.5	N/A	3.0 2.7 - 3.0	1.8 N/A	Decay of natural and man-made deposits	Yes
Gross alpha particle (pCi/L)	15	Zero	0.28 ND - 1.1	N/A	1.3 0.3 - 1.3	ND	Erosion of natural deposits	Yes
Combined radium-226/228[2] (pCi/L) [tested every 4 years]	5	Zero	0.7 ND - 1.2	N/A	1.3 0.6 - 1.3	0.4 N/A	Erosion of natural deposits	Yes

1. EPA considers 50 pCi/L to be the level of concern for Beta particles.
2. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Substance (Unit)	MCL	MCLG	NWR	LG	N	P	Likely Source	Meets EPA Stds.
Turbidity – Clarity (NTU)	Max. TT, 1 Min. TT, less than or equal to 0.3, greater than 95%	N/A N/A	0.26 0.09 - 0.26 Min. 100	0.13 0.05 - 0.13 Min. 100	0.44 N/A Greater than 99.05%	0.08 0.04 - 0.08 Min. 100%	Soil runoff	Yes

Substance (Unit)	MCL	MCLG	NWR & LG Range at Sampling Sites*	NWR & LG Highest Running Average**	N Range at Sampling Sites*	N Highest Running Average**	P Range at Sampling Sites*	P Highest Running Average**	Likely Source	Meets EPA Stds.
TTHM – Total Trihalomethanes (ppb)	80*	0	ND - 66	30	33 - 83	51	35 - 48	45	By-product of drinking water chlorination	Yes
HAA – Haloacetic Acids Acids (ppb)	60*	0	1 - 27	17	4 - 40	27	13 - 26	28	By-product of drinking water chlorination	Yes

*Range of individual readings. **MCL is the highest running annual average allowed for the year.

MICROORGANISMS

Substance	MCL	MCLG	NWR & LG	N	P	Likely Source	Meets EPA Standards
Total Coliform Bacteria	5% or less of monthly samples are positive	0	0%	2% in May 0 - 2	0	Naturally present in the environment	Yes

Monitored Substance (Unit)	MCL	MCLG	NWR & LG	N	P	Likely Source
Cryptosporidium (organisms/liter)	None	None	0.01 (in source water) ND - 0.01	N/A	N/A	Warm-blooded animals living in the watershed
Giardia (organisms/liter)	TT	0	ND	N/A	N/A	Warm-blooded animals living in the watershed

LEAD AND COPPER (90TH PERCENTILE)

Substance (Unit)	MCL	MCLG	NWR & LG 90th % Range	N 90th % Range	P[2] 90th % Range	Likely Source	Meets EPA Standards
Copper (ppm) [house tap]	AL = 1.3	1.3	0.160 ND - 0.430	0.163 0.030 - 0.295	0.145 ND - 0.417	Corrosion of household plumbing	Yes
Lead (ppb) [house tap]	AL = 15	0	18[1] ND - 70	7.3 0.2 - 37	2.8 0.3 - 9.8	Corrosion of household plumbing	Yes
# of samples above AL of 1.3 ppm for copper # of samples above AL of 15 ppb for lead			0 out of 102 11 out of 102	0 out of 30 3 out of 30	0 out of 31 0 out of 31		NWR & LG - No N & P - Yes

1. **NWR/LG Lead Action Levels:** In a recent round of testing under the Lead and Copper Monitoring Program, a small percentage of the samples analyzed from homes within the City have lead levels above the EPA action level. This is the level above which a utility must initiate a public education program and provide customers with educational literature about avoiding potential exposure to lead in drinking water. The City completed the Public Education program that included the following: thoroughly investigating the corrosion control treatment and source water treatment, mailing lead information brochures to customers in the service area and placing them in public libraries and recreation centers, sending a public service announcement to the media, running an ad in the Virginian Pilot Clipper, and offering free lead testing for any customer in the service area. Free tests have been performed for over 460 customers. The City continues to collect and analyze samples per the monitoring schedule.
Lead: 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).
2. System is on Reduced Monitoring. This means after meeting 3 consecutive years of lead and copper monitoring with results below the Action Level, EPA reduces sampling frequency to once every three years. Norfolk results are from 2005 testing, while Portsmouth results are from 2006. The next testing for Norfolk is in 2008 and Portsmouth is in 2009.

ADDITIONAL WATER QUALITY PARAMETERS

These substances are not considered harmful, but some can affect the taste and odor of drinking water.

Substance (Unit)	Suggested Limit	NWR & LG highest level and range	N highest level and range	P highest level and range
Aluminum (ppm)	0.05 - 0.2	ND	0.12 0.02 - 0.12	ND
Ammonia (ppm)	None	0.65 / 0.49 - 0.65	N/A	N/A
Chloride (ppm)	250	106 44 - 106	21 8 - 21	18 N/A
Color (CU)	15	2.5 / ND - 2.5	N/A	N/A
Hardness – total [ppm & *(grains per gallon)*]	None	30 (2) ND - 30	61 *(4)* 18 - 67	30 (2) N/A
Iron (ppm)	0.3	ND	N/A	N/A
Manganese (ppm)	0.05	ND	0.2 ND - 0.2	N/A
Nickel (ppb)	100	ND	0.2 / ND - 0.2	N/A
ph (pH units)	6.5 - 8.5	8.69 (avg.) 6.36 - 8.69	7.3 (avg.) 6.6 - 7.9	7.7 (avg.) 3.3 - 8.0
Sodium (ppm)	250	83 / 78 - 83	40 / 10 - 40	61 / N/A
Sulfate (ppm)	250	9 / ND - 9	41 / 24 - 41	61 / N/A
Zinc (ppm)	5	0.565 0.271 - 0.565	N/A	N/A

Table Definitions

Substances in your drinking water are routinely monitored by the Virginia Department of Health according to Federal and State Regulations. The 2007 Water Quality Table shows the results of our monitoring for the period of January 1st to December 31st, 2007 unless otherwise stated. In the table and elsewhere in this report you will find many terms and abbreviations you might not know. The following definitions are provided to help you better understand these terms:

Additional Water Quality Parameters – the compounds that may affect drinking water aesthetics such as taste, odor and color.

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

CU (Color Units) – a measure of the color of water.

Detected Substances – compounds detected in Chesapeake's drinking water during calendar year 2007. The SDWA requires that the highest value detected and the range, if available, during the calendar year be provided in the report. An additional 180 compounds were tested for and not detected. A full list of these test results is available from the Chesapeake Water Quality Laboratory at 757-382-3550.

HAAs (Haloacetic Acids) – byproducts of disinfection.

IDSE (Initial Distribution System Evaluation) – sites identified in the distribution system with high disinfection byproduct concentrations.

Likely Source – the major sources of the compounds detected in finished water.

LG (Lake Gaston Water Treatment Plant) – The highest level and range, if available, of the compounds detected in the finished water processed at the Lake Gaston Water Treatment Plant (Entry Point #2), a combined surface water source, Western Branch Wells #1 and #3 and Aquifer Storage and Recovery (ASR) water sources as needed to meet heavy demand.

MCL (Maximum Contaminant Level) – 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.

MCLG (Maximum Contaminant Level Goal) – 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.

MRDL (Maximum Residual Disinfectant Level) – a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.

MRDLG (Maximum Residual Disinfectant Level Goal) – the maximum level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of persons would occur, and which allows an adequate margin of safety. MRDLGs are nonenforceable health goals and do not reflect the benefit of the addition of the chemical for control of waterborne microbial contaminants.

Microbial Substance – disease-causing organisms that may be harmful at certain levels. More information about *Cryptosporidium* and Giardia is supplied in this report.

mrem/year (Millirems per year) – is a measure of radiation.

N (Norfolk System Results) – the highest level and range, if available, of the compounds detected in the finished water supplied by the City of Norfolk for Chesapeake customers.

N/A – not available.

ND – not detected, lab analysis indicates that the contaminant is not present or was below the level of detection.

NTU (Nephelometric Turbidity Unit) – a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

NWR (Northwest River System Results) – The highest level and range, if available, of the compounds detected in the finished water processed at the Northwest River Water Treatment Plant (Entry Point #1), a combined surface and brackish well water source.

P (Portsmouth System Results) – the highest level and range, if available, of the compounds detected in the finished water supplied by the City of Portsmouth for Chesapeake customers.

pCi/L (Picocuries per Liter) – a measure of radioactivity.

ppb (parts per billion) – One part per billion is the equivalent of one minute in 2,000 years, or one penny in $10,000,000.

ppm (parts per million) – One part per million is the equivalent of one minute in 2 years, or one penny in $10,000.

Plant Effluent – water leaving the plant after going through the treatment process.

Stage 2 D/DBPR (Disinfectants and Disinfection By-Product Rule) – rule developed to improve drinking water quality and provide additional monitoring of disinfection by-products.

TOC (Total Organic Carbon) TT – This value represents the waterwork's ability to meet TOC percent removal requirements based on an annual average of the monthly percent removal ratios. TOC percent removal requirements are met when the value is greater than or equal to 1.00.

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

TTHMs (Total Trihalomethanes) – compounds formed during the disinfection of drinking water.

Drinking Water of the Highest Quality

We want you to know about your drinking water: where we get your water, how it is purified and what is in it. The federal Safe Drinking Water Act (SDWA) sets the standards and this annual water quality report is one of the provisions of those standards. Please take a few minutes to review this very important information and know that reliability, quality, and affordability are at the heart of our mission in Public Utilities.

In order to produce the approximately 16.7 million gallons per day for about 61,206 accounts, more than 195,125 analyses throughout the treatment process are performed annually for treatment of drinking water. Water quality sampling in approximately 480 homes and businesses around the city tells the story of how well we are doing.

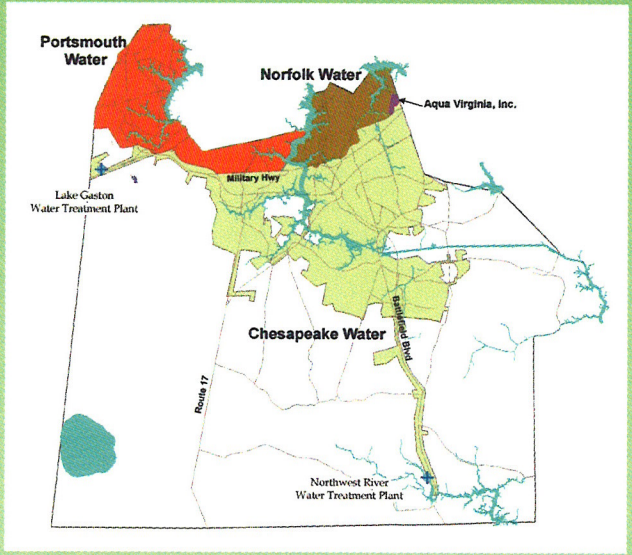
Association with world class organizations helps Public Utilities remain on the cutting edge of technology and committed to continuous improvement. We are members of the **American Water Works Association** (AWWA) and its **Partnership for Safe Water** (PSW), an association of water utilities and government entities committed to drinking water quality that is superior to that required by federal regulations. We provide financial support to the **American Water Works Association Research Foundation** (AWWARF), which funds and publishes the results of many projects every year aimed at improving management and treatment of water and wastewater facilities. We belong to the **Association of Metropolitan Water Agencies** (AMWA), whose membership is limited to utilities with at least 50,000 customer accounts. We are also members of the **American Membrane Technology Association** (AMTA), and the **Water Environment Federation** (WEF).

Locally, the City provides financial and technical support to the regional **Hampton Roads Planning District Commission** (HRPDC), which coordinates many research, public education and information programs. Some of these programs are the Hampton Roads Water Efficiency Team (HR WET), Hampton Roads Stormwater (HR Storm), Hampton Roads Clean (HR Clean), the Groundwater Committee, the Water Supply Committee, and Help 2 Others (H2O). We are members of the Hampton Roads Utility and Heavy Contractors Association (HRUHCA) and the Virginia Cross-Connection Control Association (VCCCA)

The City of Chesapeake's "The City That Cares" motto is recognized by Public Utilities in meeting the needs of both external and internal customers. In cooperation with other City departments the Customer Contact Center began operations in July 2005. It provides a new, easier way for citizens to contact us with concerns and questions. Call 382-CITY (2489) or go on line at www.CityOfChesapeake.net and click on the C3 logo. For routine turn-on or turn-off services, Public Utilities' Customer Service section stands ready at 382-6352.

Reliability Comes from Many Sources

Chesapeake is fortunate to have two treatment plants and contracts to purchase treated water from the cities of Norfolk and Portsmouth. Additional water is available from an auxiliary well source that is used during peak demands. These sources are described below.



The City's Northwest River Water Treatment Plant, located at 3550 South Battlefield Boulevard, treats up to 10 million gallons a day (MGD) from the Northwest River. The plant also treats brackish ground water from four wells located along South Battlefield Boulevard. The plant's capabilities include both the conventional processes of coagulation, sedimentation, and filtration as well as reverse osmosis (RO) membrane treatment. This supply generally serves customers south of Military Highway, but is subject to periodic adjustment depending on consumption patterns.

In April 2006, the Lake Gaston Water Treatment Plant was dedicated. It provides 8 MGD of new water for the City. The plant is located west of the Hampton Roads Airport on Virginia Route 58. The plant is currently treating raw water purchased from Norfolk. Treatment is provided using ultrafiltration technology with low pressure. Upgrades to the Lake Gaston plant will allow treatment of the 1/6 portion of Lake Gaston raw water in the future. With this added source, we expect to meet our projected water demands to the year 2040.

Customers in the Indian River and South Norfolk areas, north of Military Highway, receive treated water from the city of Norfolk. Water customers in Western Branch and Deep Creek, north of Military Highway, receive treated water from the city of Portsmouth. These sources are of excellent quality and also meet or exceed the SDWA standards.

The Western Branch Auxiliary Source is located near the Hampton Roads Airport. This source consists of groundwater from Wells #1 and #3 and the Aquifer Storage and Recovery (ASR) well. These wells serve a dual purpose. Fluoride occurs naturally in the native water; so the wells are used to provide natural fluoridation to the treated water. In addition, the Auxiliary Source is used to meet peak demand when necessary. When in use this water is blended with Lake Gaston treated water before entering the distribution system.

A private water company, Aqua Virginia, Inc., has a franchise area in the Norfolk Highlands neighborhood, which serves approximately 450 customers. The Aqua Virginia, Inc. customer service number is 1-800-537-4865 .

Spotlight Water-Saving Tips — Help Yourself to Savings

Using our drinking water responsibly and in smart ways will lead to preserving supplies and possibly save you money. When you use less hot water you will save on the costs to heat the water. You may be surprised at the results of knowing how and where you use this precious natural resource. Here are some easy water-wise tips:

- Fix leaks
- Wash only full loads of laundry and dishes
- Take shorter showers
- Turn the water off while brushing teeth or shaving
- Slow the flow to what you really need for the job
- Install water-saving aerators on faucets and tank dams on toilets
- Mulch around plants and shrubs
- Lawns need only 1" of water a week; if nature provides, turn off the sprinklers
- Water the lawn and garden in the early morning or evening