

Kent County
Water Authority

Consumer Confidence
Water Quality
Annual Report
2007



KCWA Consumer Confidence Water Quality 2007 Annual Report

Kent County Water Authority is pleased to present this year's Water Quality Report. This annual report fulfills the Environmental Protection Agency (EPA) and Rhode Island Department of Health requirements to provide a "Consumer Confidence Report" to our customers. This publication reflects our efforts to keep you informed about the quality of the water and services we deliver to you every day.

Our goal is to consistently provide you with safe and dependable drinking water. This report includes information related to the origin of your water, what it contains and how it compares to the quality standards set by the EPA. Be assured, the Kent County Water Authority and its professional staff are committed to providing customers with the safest, most cost effective and reliable drinking water.

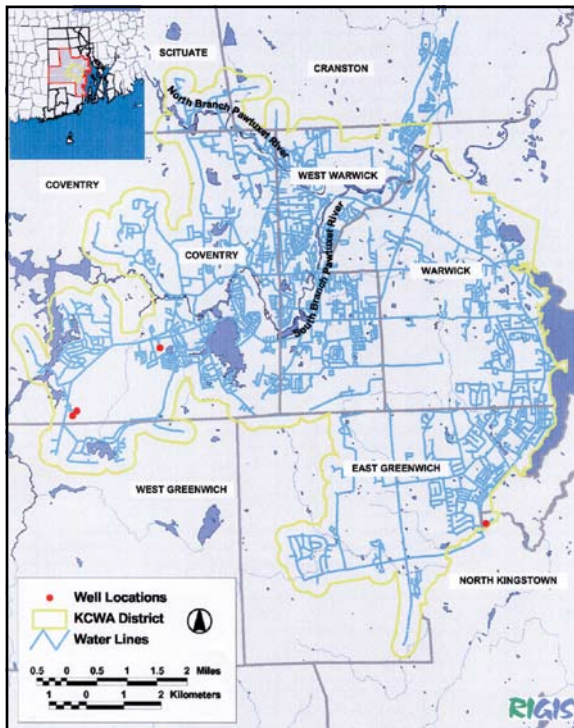
It's what's inside your water that counts and nothing is more important than your health. Kent County Water Authority and its predecessor companies have been delivering safe,

dependable water, seven days a week, 24 hours a day for 128 years. As reported, in this and in previous years, our monitoring results show our system had no violations. Water delivered by the Kent County Water Authority meets or surpasses all federal and state of Rhode Island requirements. You put a lot of faith in us and we take that very seriously. Thank you for your continued confidence.

We have learned through our monitoring and testing efforts that some regulated constituents have been detected. The Environmental Protection Agency (EPA) and Rhode Island Department of Health have determined that your water is SAFE at these levels. To learn more, please continue reading. We will tell you about the quality of your drinking water, its sources, an overview of the water system's future goals, progress and more. If you have any questions concerning this information or about your water, please contact our General Manager/Chief Engineer, Timothy J. Brown P.E. at 401-821-9300 or customerservice@kentcountywater.org. Customer concerns regarding Providence Water results may be directed to the customer service department of the Providence Water Supply Board at 401-521-6300.

We value your input and want our customers to stay informed about their water utility. Public participation adds value to the decision making process regarding the quality of your water and the service you're provided. If you would like to learn more about your water utility, please attend any of our regularly scheduled board meetings, held on the third Thursday of each month. Meeting agenda information can also be found on the Kent County Water Authority web site: www.kentcountywater.org and Secretary of State web site, <http://www.sec.state.ri.us/govtracker/>. Meetings begin at 3:30 p.m., at our office located at 1072 Main Street, West Warwick. We look forward to seeing you there!

Water delivered by the Kent County Water Authority meets or surpasses all federal and state of Rhode Island requirements.



Additional Health Information

The sources of drinking water (both tap and bottled water) include rivers, lakes, ponds, reservoirs, springs, and wells. As water travels over the land or through the ground, it dissolves naturally occurring minerals; radioactive material and can pick up substances or contaminants resulting from the presence of human or animal activities.

All sources of drinking water are subject to potential contamination from substances that are naturally occurring or man made, such as: microbes, inorganic and organic chemicals, and naturally occurring radioactive substances. All drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. More information on contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791 or by visiting the EPA web site at www.epa.gov/safewater.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as persons with cancer who are 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 from their health care providers about drinking water. Environmental Protection Agency and Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Maximum Contaminate Levels (MCL) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day, at the MCL, for a lifetime to have a one-in-one-million chance of having the described health effects.

Infrastructure Improvements

It is imperative for the continued viability of your water system to replace aging water mains, rehabilitate tanks and pumping stations, and implement programs that streamline service to our customers. Several projects are currently underway to replace failing water mains, enhance hydrant fire flow and promote better service for our customers. Costs associated with these improvements are incorporated in the rate structure for your billing.

Occasionally, rate adjustments are necessary to address essential system improvements. Your consideration is greatly appreciated when this is required. Be assured this is only done when necessary and each program is fully reviewed and approved by the Public Utilities Commission.



Work crews repair a hydrant that was damaged when a driver lost control of his/her vehicle

In 2007, Kent County Water Authority completed several important projects, including:

- Installation of approximately 20,000 linear feet of 12-inch through 20-inch diameter water mains in West Warwick and Coventry. This project served a dual purpose, improving existing infrastructure while providing the necessary transmission mains for an emergency interconnection with Providence Water. The final paving associated with this project will be completed as conditions permit in the Spring/Summer of 2008.

- Installation of approximately 14,000 linear feet of 8-inch diameter water mains in Warwick and Coventry. This project began in 2006 and was completed in 2007. Final paving in the Coventry area is expected to be completed in the Spring of 2008.
- Installation of approximately one mile of 8-inch and 12-inch diameter water mains along Greenwich Avenue in Warwick.
- Painting the interior and exterior of the Technology Park's 1.5 million gallon storage tank along Interstate 95.

This year we will be installing approximately 8,000 feet of new water mains and a pressure reducing station in Coventry to improve water pressure to our customers in the Oak Haven area of the town. The Tiogue Tank will be taken offline once this project is complete.

In addition, we plan on rehabilitating the Quaker Lane Pump Station in Warwick. This work will include increasing the station's low service capacity and installing pumps that will pump to our high-service area to help alleviate supply concerns in that part of our system.

Kent County Water Authority will also be updating our 20-year infrastructure replacement plan that will prioritize our short-term (five-year) and long-term (20-year) infrastructure replacement strategy.

Source Water Assessment

The Rhode Island Department of Health completed a source water assessment of the Kent County Water Authority supplies during 2003. Susceptibility to contamination was determined to be "MODERATE" according to the assessment guidelines used by the Rhode Island Department of Health during the assessment. This ranking is considered average for the water supply. Individual groundwater recharge areas may fall into the high or extreme risk of susceptibility to contamination from land use activities. Future risk is expected to increase with continued development. Copies of this Assessment can be obtained from the Rhode Island Department of Health at 401-222-6867.

Your Watershed, Your Environment, Your Move

Understanding what a watershed really is and its connection to your water quality can help each of us safeguard our environment and the water we drink. A watershed is the natural drainage basin of any area. The Pawtuxet, Mishnock and Hunt River aquifers comprise the watersheds from which your water supply comes.

What goes into our watershed may also come from our own landscape or home. Caring for our watershed and what goes into it is a way each of us can make a difference. Even small amounts of pollutants add up. Contaminants introduced

into the watershed can be classified into two categories, point and non-point source contaminates. Point source pollution is that which can be traced to a specific source such as a factory, farm, leaking fuel tank or industrial site. Non-point source contaminants are more difficult to manage because they represent small contributions from each of us. Paint thinner, anti-freeze, pesticides; it doesn't take long for shelves to become cluttered with half-empty containers of chemicals. Chemicals or pollutants inadvertently put down a sink or street drain, or over application of fertilizer or pesticides sprayed around a foundation are all potential sources of watershed contamination. They can make their way to the aquifers that supply your drinking water. Remember, clean potable water starts at the source.

Caring for our watershed and what goes into it by our own action or inaction is a way each of us can make a difference.

The gasoline additive Methyl Tertiary Butyl Ether (MTBE) is not a regulated substance requiring testing under the Safe Drinking Water Act. The increasing occurrence of MTBE groundwater contamination has prompted an initiative for surveillance testing as an indicator of contamination potential in local aquifers. The Rhode Island Department of Health maintains the present health advisory level at 40 ppb. Testing conducted of the Kent County Water Authority's groundwater resources revealed a detection of 1.0 ppb in the Mishnock Well #1, well below the Department of Health 40 ppb health advisory level. Currently, this level of detection is not considered a risk for public drinking water by the Rhode

Island Department of Health, but shows the vulnerability to contamination of our drinking water.

Each city and town through its comprehensive plan establishes future land use, zoning and growth projections for municipalities as outlined by Rhode Island General Law 42-22.2. The ultimate responsibility for implementation and enforcement of protection strategies for your drinking water sources is the municipality's governing body. We ask all our customers to help us protect these sensitive drinking water sources. Protecting these drinking water aquifers and recharge areas is critical.

Wellhead protection signs have been strategically positioned within existing Wellhead Protection Areas as a more visible indicator of your drinking water sources in Coventry, East Greenwich and West Greenwich. We hope these signs have helped increase public awareness and appreciation of vital groundwater resources in these areas. Contact your city or town council member and zoning official to see what else can be done to protect these resources. Public participation in the zoning decision making process can be valuable in protecting your drinking water resources. We think of our customers who live within these areas as the guardians of these essential resources. Your help to preserve the aquifers of these critical drinking water sources will be eternally appreciated by future generations who must perpetually rely on these drinking water resources. Please contact us or the Rhode Island Department of Environmental Management if you suspect potential contamination.



Voluntary Monitoring

In 2007, the Providence Water Supply Board monitored both source and effluent waters for *Cryptosporidium* and *Giardia*. Neither of these organisms was detected.

Supply Deficit

We continue to look for ways to meet the increasing demands on the public water system. The availability of supply sources is indeterminate within the state. The Rhode Island Water Resources Board is legislatively empowered as the agency that manages the withdrawal and use of the waters of the state with the obligation to assure drinking water is available to all Rhode Islanders. Rhode Island Department of Environmental Management is legislatively empowered to supervise and control the protection, development, planning and utilization of the natural resources of the state. The Kent County Water Authority must rely on these state agencies to acquire additional supplies to meet the demands of the expanding service area.

For many years state regulatory requirements for permitting new groundwater sources have not been well defined or specific enough to fully evaluate the overall cost to meet the not well-defined prerequisite requirements for the groundwater withdrawal application and permitting process. Consequently efforts in this direction have been put on hold while other alternatives are being sought. It is our understanding that the Rhode Island Water Resource Board is exploring the potential of developing wells in the Big River Management area. We have been apprised that limited progress has been made to date on this initiative because of regulatory ambiguities and funding issues. The state legislature will continue to evaluate statewide water supply issues during the 2008 legislative session. Water supply is a vital component to statewide economic sustainability. Contact your area representatives to learn more about this statewide issue and communicate your concerns.

Development of additional drinking water resources in the Mishnock area of West Greenwich and Coventry continues as a long-range goal. Scientific analysis indicates the potential of three to four million gallons of drinking water per day, without significantly impacting the surrounding environment, through the expansion of the well fields within the property purchased

a number of years ago by the Kent County Water Authority. These additional wells are necessary to supplement the existing supply and to support the communities we serve. For several years the Kent County Water Authority attempted to navigate its way through the permitting process at the Rhode Island Department of Environmental Management, hoping to economically tap the safe yield of these additional drinking water resources. A viable, cost effective permit to expand the well field could not be obtained. Other communities are experiencing the same obstacles in their quest for both replacement and additional wells to support growth in their communities. Because of our experience and the trend towards disapproval of new or expanded groundwater supplies, we have focused our resources on tapping the full potential of our existing well field and other potential sources of increased supply. A Department of Health

Building the reservoir doesn't mean we must tap the resource right away, but continuing to delay construction of this essential resource will considerably increase the overall future cost.

approved treatment pilot program for technology has been completed in the Mishnock Well Field and is in the final design stage for bidding and construction of the project.

In the 1960's the State of Rhode Island obtained 8,600 acres of land in the Big River Watershed through eminent domain. The intent was to develop a drinking water reservoir similar to the Scituate

Reservoir that currently supplies the majority of the state. Over the years, expansion of public water throughout the state has nibbled away at the available safe yield of the Scituate Reservoir. No other large drinking water source exists within the state and demand continues to escalate.

In 2005, the Kent County Water Authority Board of Directors contacted the Rhode Island Water Resources Board and each State Senator and Representative to rally support to build the Big River Reservoir. We continue to believe that the Big River Reservoir project is vital to the future of our state water resources for both economic and domestic concerns. The majority of Rhode Island businesses and homes rely on one reservoir system for their water supply. It has been suggested that the Scituate Reservoir may be on the verge of reaching its maximum daily production capacity. What



Drought resistant landscaping

happens if this source becomes compromised or reaches its maximum capacity or safe yield? A second major reservoir source of supply is critically necessary to provide for future growth and respond to your needs should a malevolent act or major catastrophe occur.

We all need to support the Big River initiative by conveying concerns to your state and local representatives. Building the reservoir doesn't mean we must tap the resource right away, but continuing to delay construction of this essential resource will considerably increase the overall future cost.

Water Conservation

Water is a limited resource. It is imperative that we take steps to protect and conserve it. The importance of water conservation cannot be overstated. Over the past several years we have introduced several programs to promote water conservation. We appreciate customer participation in these programs and will continue to strengthen our commitment to this important cause. As a Kent County Water Authority customer, you play a vital role in protecting and conserving our precious water resources. Your voluntary cooperation can help us continue to provide dependable service to all our customers.

Outdoor water use conservation is one short-term approach to anticipated supply shortfalls while we look for new sources of supply and build the infrastructure necessary to support it. Balancing the available water supply to meet the needs of both future economic development in our service area and the domestic demands is paramount. We believe

this is a statewide conservation issue that demands equitable state regulatory management so that all residents of Rhode Island can equally contribute to the best use of the state's water resources.

At times, seasonal conditions and consumption may necessitate implementing mandatory outdoor water use restrictions to assure domestic and fire supplies are not compromised. Legislative initiatives promoting priority water supply for economic development demonstrate the importance our state representa-

If voluntary conservation proves ineffective our only recourse will be to impose a seasonal moratorium on outdoor water use until the overall supply problem can be resolved.

tives have placed on the impact that the water supply has on the economic development of the state. If voluntary conservation proves ineffective, our only recourse will be to impose a seasonal moratorium on outdoor water use until the overall supply problem can be resolved. It is very difficult to assess when additional supply initiatives could be fully implemented.

A number of intrinsic factors must be considered in this process. Legislative support, regulatory delineations/determinations and funding to cost effectively tap new sources of supply are critical. Each customer must take action to conserve today because every customer will be affected.

Kent County Water Authority customers consume approximately 10 million gallons of water each day during the winter months. On hot summer days water use can almost double. Millions of dollars each year are spent to upgrade and expand the supply and distribution infrastructure in an attempt to meet increasing water demands, provide dependable service, and deliver high quality water to our customers. These projects are paid for by you, our customers, through the water rates. Successful water conservation efforts can help curtail seasonal increases in water demand and potentially eliminate the urgency of prematurely undertaking some of these projects.

Lawn Care and Landscaping Tips

Water usage during the summer months increases significantly over winter usage. This is primarily related to outdoor water use, the majority of which can be directly attributed to lawn watering. You can effectively reduce your summer water use in the following ways:

- **Plant Less Lawn** – Reduce traditional grass lawns where possible. Grass requires more water than other types of ground covers. Replace lawn or grass areas with drought tolerant shrubs, perennials and ground covers.
- **When to Plant Lawn** – The best time to plant grass is in the early spring or the early fall. The temperatures promote growth and the watering requirements are significantly less.
- **Grass Selection** – Select a native, drought-resistant, or low-water-use turf grass such as fescue grasses. Many varieties are available for your use that includes blends of drought tolerant varieties.
- **Plant Trees** – Trees help maintain moisture for nearby plants.
- **Odd/Even Policy** – Kent County Water Authority's odd/even watering policy does not mean that you need to water your lawn every other day. Watering every other day can encourage shallow roots, disease, and can weaken plants.
- **Water Grass Only When Needed** – Your lawn needs only one inch of water a week to remain actively growing and healthy. Use a rain gauge to measure weekly rainfall and apply only the amount of extra water needed. Depending on the weather, a good rule of thumb is to water approximately once every four days.
- **Best Time to Water** – Early morning is best. Less water is lost to evaporation and you will also reduce fungus problems with your lawn.
- **Maintain Your Lawn Properly** – Maintain your lawn at three to four inches in length during the summer heat. During a serious, prolonged drought consider allowing lawns to go naturally dormant. Watering can actually stress the grass more by forcing it to grow under such adverse conditions.
- **Limit Fertilizer Use** – Fertilizer increases the plant's thirst for water. Do not use fertilizers in the summer.

- **Natural Runoff** – Install cisterns or rain barrels to collect water from downspouts which can later be used to water plants and flowers, or depress your lawn one or two inches to capture and hold runoff from your downspouts.
- **Soil Preparation** – Preparing your soil properly is perhaps the most important aspect of a water conservative landscape. Deep cultivation with lots of organic matter such as compost, leaf mold, and peat moss will enrich the soil naturally and hold large quantities of water for proper growth of the root system and plants.
- **Using Mulch** – Use of mulch around plantings helps to reduce evaporation and maintain moisture, limit heat stress, and discourage weed growth.

For more information visit the URI Healthy Landscapes Program web site, www.healthylandscapes.org or call (401) 874-5398.

In-ground Automatic Sprinklers are perhaps the largest contributing factor to seasonal water waste. If used correctly, in-ground sprinklers can be somewhat water efficient. Unfortunately, many systems are not set up properly, or do not contain necessary moisture/rain sensors to prohibit operation when it is not necessary. In some cases, homeowners may not know how to reset the system for maximum efficiency. This results in considerable wasted water. The following general guidelines can help make your sprinkler system more efficient:



- A licensed irrigation professional should inspect for leaks and adjust your system each year.
- The point of connection is the supply line for the irrigation system. All connections, fittings, and valves should be inspected for leaks and proper operation, including the correct operating pressure. Excessive pressure can result in water waste and damaged parts.
- Sprinkler valves open and close to allow for operation of each zone. This is programmed into the controller and should be inspected regularly. Malfunction of these valves can also result in wasted water.
- Sprinkler heads should be checked monthly for proper spacing and alignment, application rates and operating pressure. Move or cap sprinkler heads to avoid watering paved or non-vegetated areas.
- Look for suspicious spots in your landscape that are much greener or consistently wet and muddy. This may be due to an underground leak or other malfunction.
- Learn how to program the system and manage it on manual mode.
- Water only as needed to supplement rainfall of less than one inch per week. Frequent light watering events encourage disease and shallow roots.
- Water early in the morning to reduce evaporation.
- Do not over water. Use a rain gauge and strive for one inch of water per week (rainfall + irrigation = one inch/week)
- Sprinklers are best suited for grass. Drip irrigation is preferable for plants and shrubs.

Upgrade your system with conservation technology to meet current Kent County Water Authority Rules and Regulations:

- Install a rain shut-off device to prevent watering when it rains.
- Install a soil moisture sensor that schedules irrigation based on soil moisture conditions.
- Consider installing a “smart” controller that schedules irrigation based on weather conditions. For more information visit the Irrigation Association web site, www.irrigation.org

Kent County Water Authority

The tables list all of the drinking water constituents detected during the calendar year of this report. The presence of those constituents found in the water at the time of testing does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables are from testing done in the calendar year of the report. In some cases the EPA and the State may require us to monitor for certain constituents less than once per year because the concentrations of these constituents do not change frequently.

Water Quality Data

Kent County Water Authority routinely monitors for constituents in your drinking water in compliance with federal and state Laws. This table shows the detection results from the numerous monitoring tests conducted for the period January 1 to December 31, 2007. The tables of "Testing Results" identify those constituents that were "detected" in both the Kent County Water Authority and Providence Water Supply sources. As authorized by the EPA, the state has implemented reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative, is more than one year old.

INORGANIC CONTAMINANT								
INORGANIC CONTAMINANT	PERIOD	UNIT	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION
BARIUM (1)	2007	ppm	2	2	0.01	N/A	Erosion of natural deposits.	NO
BERYLIUM (5)	2005	ppb	4	4	0.8	0.3-0.8	Discharge from metal refineries and coal burning factories. Discharge from electrical, aerospace, and defense industries.	NO
FLOURIDE (1)	2007	ppm	4	4	1.2	0.9-1.2	Erosion of natural deposits. Water additive, which promotes strong teeth.	NO
NITRATE-N	2007	ppm	10	10	3.63	1.7-3.63	Erosion from natural deposits. Leaching from septic tanks; sewage; Runoff from fertilizer use.	NO
MICROBIOLOGICAL CONTAMINANT								
MICROBIOLOGICAL CONTAMINANT	PERIOD	UNIT	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION
TOTAL COLIFORM BACTERIA (3)	2007	Monthly Max%	Presence of coliform bacteria in >5% of monthly samples	0%	2.5%	1-2.5%	Naturally present in the environment.	NO
TURBIDITY (1)	2007	NTU	TT	N/A	0.19	N/A	Soil runoff.	NO
TOTAL ORGANIC CARBON (1)	2007	ppm	TT	N/A	1.30	1.16-1.54	Naturally present in the environment.	NO
VOLATILE ORGANIC CONTAMINANT								
VOLATILE ORGANIC CONTAMINANT	PERIOD	UNIT	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION
TOTAL TRIHALOMETHANES(TTHM)(6)	2007	ppb	80	N/A	28.8	0-77.9	By-product of drinking water chlorination.	NO
HALOACETIC ACIDS (HAA5)	2007	ppb	60	N/A	7.1	0-22.4	By-product of drinking water chlorination.	NO
CHLORINE FREE RESIDUAL	2007	ppm	MDRL 4	MDRLG 4	0.29	0.23-0.34	Water additive used to control microbes.	NO
RADIONUCLIDES								
RADIONUCLIDES	PERIOD	UNIT	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION
COMBINED RADIUM 226 AND 228 (5)	2005	pCi/L	5	N/A	1.13	ND-1.66	Erosion of natural deposits.	NO
GROSS BETA/PHOTON EMITTERS (2)(4)	2003	pCi/L	50	N/A	10.9	ND-10.9	Decay of natural and manmade deposits.	NO
LEAD & COPPER								
LEAD & COPPER	PERIOD	UNIT	AL	MCLG	90TH PERCENTILE LEVEL DETECTED	RANGE	MAJOR SOURCES	VIOLATION
COPPER	2006	ppm	1.3	0	.04	0 of 60 samples were above the action level	Corrosion of household plumbing systems. Erosion of natural deposits.	NO
LEAD	2006	ppb	15	0	5	1 of 60 samples were above the action level	Corrosion of household plumbing systems. Erosion of natural deposits.	NO

Kent County Water Authority Table Footnotes

- (1) Detection level influenced by Providence Water purchases.
- (2) Gross Beta/Photon Emitters results have been measured in pCi/l. For Beta/Photon Emitters, although the MCL is 4 mrem/yr, a result of <50 pCi/l is considered in compliance. Radionuclide compliance monitoring is conducted once every four years.
- (3) This value refers to the highest monthly percentage of positive samples detected during the year. 1,241 samples were collected for compliance monitoring and four tested positive. Repeat samples from the same sites were tested, the results of which were negative for both fecal coliform and total coliform bacteria.
- (4) Reflects results shown in Providence Water Table for testing conducted in 2003 and must also be considered representative.
- (5) Reflects sampling at groundwater source before blending with purchased water from Providence Water Supply Board.
- (6) Contains data from ISDE monitoring. ISDE monitoring results are not considered compliance data, but representative of the EPA monitoring program.

Providence Water Quality Data

Our Cranston customers receive water through a direct-metered connection to the Providence Water Supply Board. The table below represents the results of the testing performed by Providence Water Supply Board that has been identified by Providence Water as applicable to the reporting requirements for this area. Results shown

on the Kent County Water Authority Quality Data table for lead, copper, haloacetic acids, total coliform bacteria, and total trihalomethanes are also applicable to our Cranston customers.

INORGANIC CONTAMINANT	PERIOD	UNIT	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION
FLOURIDE	2007	ppm	4	4	1.2	0.9-1.2	Erosion of natural deposits. Water additive, which promotes strong teeth.	NO
NITRATE	2007	ppm	10	10	0.06	N/A	Erosion from natural deposits. Leaching from septic tanks; sewage; Runoff from fertilizer use.	NO
BARIUM	2007	ppm	2	2	0.01	N/A	Erosion of natural deposits.	NO
MICROBIOLOGICAL CONTAMINANT	PERIOD	UNIT	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION
TURBIDITY (2)	2007	NTU	TT	N/A	0.19	N/A	Soil runoff.	NO
TOTAL ORGANIC CARBON (3) (Removal Ratio)	2007	ppm	TT	N/A	1.30	1.16-1.54	Naturally present in the environment.	NO
RADIONUCLIDES	PERIOD	UNIT	MCL	MCLG	DETECTED	RANGE	MAJOR SOURCES	VIOLATION
COMBINED RADIUM 226 AND 228 (1)	2003	pCi/L	5	0	0.58	N/A	Erosion of natural deposits.	NO
GROSS BETA/PHOTON EMITTERS (2)	2003	pCi/L	50	N/A	10.9	N/A	Decay of natural and manmade deposits.	NO

Water Quality Table Footnotes:

- (1) Gross Alpha and Beta/photon Emitters are measured in pCi/L. For Beta/photon Emitters, although the MCL is 4 mrem/yr, a result of < 50 pCi/L is considered to be in compliance; no further analysis required.
- (2) 0.19 NTU was the highest single turbidity measurement recorded. The lowest monthly percentage of samples meeting the turbidity limit was 100 %. The average turbidity value for 2007 was < 10 NTU.
- (3) In order to comply with EPA standard, the removal ratio must be greater than 1.
- (4) N/A = Not Applicable.

Table Unit Descriptions:

- **AL** Action Level
- **MCL** Maximum Contaminant Level
- **MCLG** Maximum Contaminant Level Goal
- **pCi/L** Picocuries Per Liter
(a measure of radioactivity)
- **ppb** Parts Per Billion, or micrograms per liter
- **TT** Treatment Technique
- **NTU** Nephelometric Turbidity Units
- **ppm** Part Per Million
- **N/A** Not Applicable
- **ND** None Detected
- **HA** Health Advisory
- **MRDL** Maximum Residual Disinfection Level
- **MRDLG** Maximum Residual Disinfection Level Goal

Important Drinking Water Definitions:

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.

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.

TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

AL: Action Level: The concentration of a contaminant, which if exceeded, triggers a treatment of other requirements that a water system must follow.

MRDL: Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.

MRDLG: Maximum Disinfectant Level Goal: The level of 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.

Source of Water

The Kent County Water Authority purchases approximately 80 percent of your water from the Providence Water Supply Board. This supply is treated surface water from the following reservoirs located in the central part of the state: Scituate, Regulating, Moswansicut, Ponaganset, Barden and Westconnaug reservoirs. The remainder of your water is produced from the following groundwater resources: Mishnock wells #1 and #3 located off Nooseneck Hill Road bordering Coventry and West Greenwich; Spring Lake well located off Tiogue Avenue, Coventry; and our East Greenwich well located off Post Road at the Warwick and East Greenwich line. Kent County Water Authority also wholesales water to the City of Warwick to supply the Potowomet section.



Hunt River Dam.

Capital Improvements

Capital Improvement projects are intrinsic components to the future of the water supply system. Completion of these projects will help improve water quality, facilitate regulatory compliance initiatives, and better provide supply for the customer.

Our goal is to provide better service. As an additional benefit of these projects, the Kent County Water Authority will be resurfacing the roadway impacted by construction work. The resurfacing effort will not impact your city, town or state tax base, because it is funded solely from the project budget, which receives neither municipal nor state participation.

Kent County Water Authority will begin construction on two related projects simultaneously in Coventry this spring. One is a new 1.5 million gallon storage tank on Nike Site Road. The other is the installation of a new water main along Flat River and Read School House Roads to the new tank. Once activated, which we expect to be late 2008, the new tank and transmission mains will improve overall service to this area of Coventry.

Kent County Water Authority is also well underway with the design for a new water treatment plant at the Mishnock Well Field in Coventry. These wells have been inactive for a while because of aesthetic water quality concerns. The new treatment plant will incorporate state-of-the-art technology to deliver high-quality water to our customers. It is expected that construction will be initiated in 2008 and the plant will come on line in 2009.

In June 2007, the rehabilitated Clinton Avenue pump station was put into operation. The pump capacity of this station has increased to 22 million gallons a day for the 334 low service gradient and in the future will provide up to three million gallons a day to the Read School House 500-foot gradient. Actual supply capacity into the system may be somewhat less than the pump capacity due to physical constraints of the existing infrastructure. Eventually the Read School House gradient will be loop connected to the remainder of the system's 500-foot gradient to provide additional and redundant supply capabilities to the entire service gradient. These projects will be evaluated and prioritized under the current Capital Project Plan revision. Completion of the Clinton Avenue project has significantly improved our ability to transfer water across the distribution system and better serve you, our customers. This year we also moved forward with a system

wide hydraulic study to evaluate the transmission, distribution, storage and hydraulic capability of the existing system. Development of a revised Capitol Improvement Plan is currently underway based on the information learned from the system hydraulic study.

Manganese Mitigation

In late summer of 2004, we implemented a Manganese Sequestering Pilot Treatment Program for our Warwick/East Greenwich distribution area. The goal of this program was to attempt to eliminate the staining effects related to the occurrence of manganese in source water supply. Sequestering will continue as an interim mitigation program.

Recent approval by the Rhode Island Department of Health of treatment technology for our Mishnock Well Field takes us one step closer to moving forward with the design, bidding and construction phases for our Warwick/East Greenwich Well Field. The installation of the full-scale treatment system will not occur overnight, but the process to reach this goal is well on its way. During this interim period we ask that you continue to follow our suggestions to not use chlorinated dishwashing detergents, chlorine bleach laundry products or monthly drop-in toilet tank cleaning products that contain chlorine. These types of products promote staining. Certainly, feel free to contact us at 821-9300 or customerservice@kentcountywater.org if you have any questions about our proposed programs or would like to discuss aspects of the water supply with one of our customer service representatives.

Cross Connection Control

In 2007, the state legislature passed a new law regarding cross connection control. Cross connection control is a key element to the protection against unforeseen contamination of your drinking water. Backflow, backsiphonage or return of contaminants to your drinking water through an unprotected commercial and residential service connection can be devastating. Protection of the public drinking water supply is a paramount concern. Under the new law the Rhode Island Department of Health must develop and implement

statewide regulations on this matter. Some changes in the Kent County Water Authority cross connection control program as outlined in the Rules and Regulations of the Kent County Water Authority may be necessary. All customers are subject to compliance with these regulations as a condition of receiving service. A copy of the current Kent County Water Authority Rules and Regulations can be obtained at our office or on line at www.kentcountywater.org.

Meter Technologies

Radio frequency metering technology has begun in the Kent County Water Authority service area. Technology is a key aspect to economically providing you service. The latest tool is the implementation of new style digital metering to monitor our customers correct consumption. This type of meter also provides built-in leak detection and consumption trending that can help provide the information necessary to answer customer questions on unusual consumption or billing concerns. Our goal is to eventually replace all existing meters with this type of technology as our programs advance and the new equipment becomes more readily available for installation.

Lead Informational Statement

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. Kent County Water Authority 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 two 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 or at <http://www.epa.gov/safewater/lead>.



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