

2015

DRINKING WATER QUALITY REPORT



CAPITAL REGION

WATER



CAPITAL REGION™

WATER

**Este informe contiene información importante acerca de su agua potable.
Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda.**

(This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

Dear Customer,

I'm pleased to share our 2015 Drinking Water Quality Report with you. Water is essential to life, economic development, and fire protection. Capital Region Water's 100 employees work 24 hours a day to provide our customers some of the highest quality drinking water in the country.



In fact, thanks to the pristine Dehart Reservoir and talented water plant operators, your drinking water placed in the top 5 of American Water Works Association's national "Best of the Best" taste test contest in Boston, Massachusetts last year!

This 2015 report includes water quality information for the 2014 calendar year. The Environmental Protection Agency (EPA) requires all water utilities to produce and distribute water quality reports on an annual basis to help you understand what's in your water.

In 2013, the water we supplied your home or business was better than all EPA and state drinking water health standards.

Capital Region Water looks forward to continuing to invest in our community from raindrop to river.

Shannon Williams,
P.E. CEO, Capital Region Water

**If you have any questions about this report or your water utility
please contact Jason Li at 888-510-0606.**

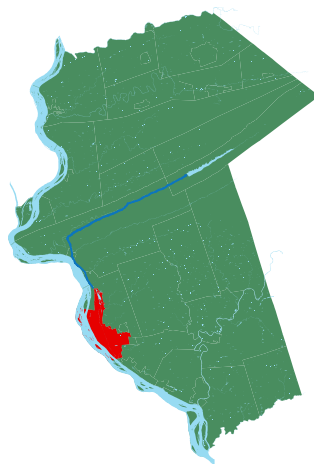
Capital Region Water's Public Water System Identification Number: 7220049

DR. ROBERT E. YOUNG WATER SERVICES CENTER ACHIEVES HIGHEST LEVEL OF PERFORMANCE

Capital Region Water's drinking water treatment plant received the prestigious Presidents Award from the Partnership for Safe Water earlier this year. The Partnership for Safe Water is a self-assessment program for water treatment plant and distribution system optimization. Capital Region Water is one of seven utilities in the country to receive the Presidents Award in 2015 for meeting the most stringent water quality performance goals.

SOURCE WATER INFORMATION: WHERE YOUR WATER COMES FROM

Your primary source of drinking water comes from The William T. DeHart Dam and Reservoir, located 20 miles northeast of Harrisburg in the pristine Clarks Valley. The DeHart Reservoir impounds water flowing from Clarks Creek and twenty-three smaller tributaries, collects water from an almost twenty-two square mile watershed and has a six billion gallon storage capacity when completely full.



What's a watershed? A watershed is the area of land that drains into a river or stream. *You're sitting in one now!*

Roughly 8.5 million gallons per day of raw water from the reservoir flows by gravity through 23 miles of 42 inch diameter pipe to our water treatment facility.

The Susquehanna River is our secondary source and is only utilized in case of severe drought or emergency. The Susquehanna River Intake and Pump Station utilizes three vertical turbine pumps to transfer up to 20 million gallons per day of raw water from the river intake to the water treatment facility, when required.

A Source Water Assessment of our sources was completed by the PA Department of Environmental Protection (DEP) in 2003. The Assessment found that our primary source is most susceptible to on-lot septic systems and fuel oil storage facilities. A summary report of the Assessment are available at: capitalregionwater.com/sourcewater.

Protect your drinking water: Pollution that occurs in Clarks Creek Valley or in the Susquehanna River watershed can contaminate your drinking water. Do your part to protect drinking water by:

- Report pollution spills to Capital Region Water at 888-510-0606
- Dispose household hazardous wastes properly. Contact Dauphin County for more information at 800-449-7587
- Don't litter! Litter washes into storm drains and can contaminate waterways used for drinking water.

DRINKING WATER TREATMENT: How your water is treated

The Robert E. Young Water Services Center was built in 1994 and remains a premier water treatment facility capable of producing 20 million gallons of drinking water a day.

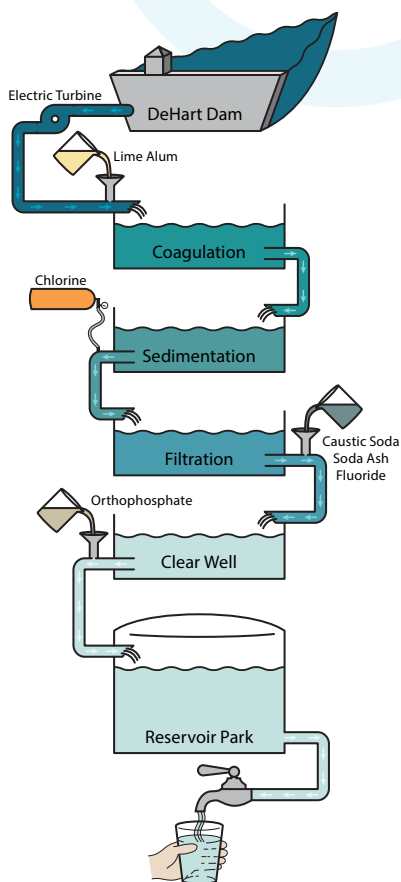
As raw water enters the treatment facility, an electric turbine slows the water down and creates renewable electricity.

Next, lime and alum are added causing small particles to adhere together. This coagulation process creates heavier particles that will settle in the sedimentation basins.

After sedimentation, chlorine is added for disinfection and the removal of pathogenic (disease producing) organisms. The water is then filtered to remove any remaining particulate matter.

After filtration, caustic soda and soda ash are added to adjust PH and fluoride is added as a tooth decay preventative.

Next, the water goes into an underground storage tank to allow more contact time with chlorine. Zinc orthophosphate is then added to control corrosion in the distribution system and the treated water is pumped to three finished water storage reservoirs in Reservoir Park from which the potable water is gravity fed to your homes, businesses, and institutions.



DISTRIBUTION SYSTEM: Bringing water to homes & businesses

Capital Region Water operates almost 250 miles of water mains that range from 2 inches to 36 inches in diameter and 1,600 fire hydrants. Please report issues with water mains and fire hydrants by calling 888-510-0606 Ext 2. This extension is monitored 24/7.

Homeowners are responsible for the line that runs between the main and their home.

WATER CONTAMINANTS

The sources of all drinking water (both tap 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 animal or 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 run-off, 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm-water 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 and DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which must provide the same 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 EPA's Safe Drinking Water Hotline (800-426-4791).

SPECIAL HEALTH INFORMATION

Some people may be more vulnerable to drinking water contaminants than the general population. People with compromised immune systems, such as those 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 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: (800-426-4791).

INFORMATION ABOUT LEAD

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. Capital Region Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.



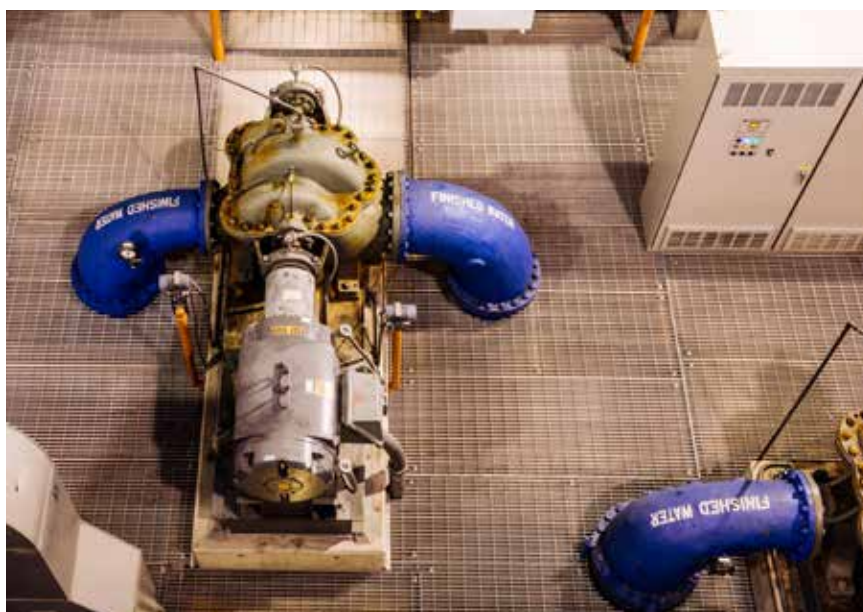
MONITORING YOUR WATER

Capital Region Water routinely monitors for contaminants in your drinking water in accordance with federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2014. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data from prior years consistent with the Safe Drinking Water Act has been noted on the sampling results table.

DEFINITIONS TO HELP UNDERSTAND THIS REPORT

- **EPA:** Environmental Protection Agency
- **DEP:** Department of Environmental Protection
- **FDA:** Food and Drug Administration
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant Level (MCL):** The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **Minimum Residual Disinfectant Level (MinRDL):** The minimum level of residual disinfectant required at the entry point to the distribution system.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **ppb:** Parts per billion, or micrograms per liter ($\mu\text{g/L}$)
- **ppm:** Parts per million, or milligrams per liter (mg/L)

Chemical Contaminants (2014 Sample Dates)							
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Violation (Y/N)	Sources of Contamination
Barium	2	2	0.012	-	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine	4		1.22	0.77 - 1.22	ppm	N	Additive used to control microbes
Fluoride	2*	4	0.48	-	ppm	N	Erosion of natural deposits; Additive - promotes strong teeth; Fertilizer and aluminum factory discharge
Nitrite	10	10	.11	-	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate	1	1	.11	-	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Trihalomethanes	80	NA	39.0	16.9 - 86.2	ppb	N	By-product of drinking water chlorination
Haloacetic Acids	60	NA	33.2	10.6 - 69.9	ppb	N	By-product of drinking water chlorination
Radium-226	5	0	.117	-	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production
*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.							



Entry Point Disinfection Residual (July 5, 2014 Sample Date)							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Violation (Y/N)	Sources of Contamination	
Chlorine	0.2	1.14	1.14 - 1.67	ppm	N	Additive used to control microbes	
Total Organic Carbon (TOC)							
Contaminant	Range of % Removal Required	Range of % Removal Achieved	Number of Quarters out of Compliance	Violation (Y/N)	Sources of Contamination		
TOC	35 - 45	35.2 - 100	0	N	Naturally present in the environment		
We had no detections of Volatile Organic Compounds, or Synthetic Organic Compounds							
Microbial							
Contaminant	MCL	MCLG	Highest Number or Percent of Positive Samples	Violation (Y/N)	Sources of Contamination		
Total Coliform Bacteria	For systems that collect <40 samples/month: • More than 1 positive monthly sample For systems that collect ≥40 samples/month: • 5% of monthly samples are positive	0	0	N	Naturally present in the environment		
Fecal Coliform Bacteria or E.coli	0	0	0	N	Human and animal fecal waste		
Turbidity							
Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation (Y/N)	Sources of Contamination	
Turbidity	TT = 1 NTU for a single measurement	0	0.121	01/15/14	N	Soil runoff	
	TT = at least 95% of monthly samples ≤0.3 NTU		100	12 months	N		
Lead and Copper							
Contaminant	Action Level (AL)	MCLG	90 Percentile Value	Units	No. of Sites Above AL of Total Sites	Violation (Y/N)	Sources of Contamination
Lead	15	0	0	ppb	0	N	Corrosion of household plumbing
Copper	1.3	1.3	.079	ppm	0	N	Corrosion of household plumbing
Lead and copper results are from 2013. Next testing cycle 2016.							

MICROBIOLOGICAL SAMPLING & ANALYSES

Our Water Quality Laboratory collects and analyzes over 80 drinking water samples each month from the distribution system to test for total coliform and E. coli bacteria, which are naturally present in the environment. Their presence is an indicator that other potentially harmful pathogens may be present. The maximum contaminant level for coliform bacteria is less than 5% positive samples; our maximum contaminant level goal is zero. We are pleased to report that all bacteriological samples collected and analyzed during 2014 and the eight previous years demonstrated the absence of coliform bacteria within our potable water distribution system.

VIOLATIONS:

Capital Region Water failed to submit one of the eight test results for HAA5 (Haloacetic Acids) in time by the end of 3rd quarter of 2014. We have submitted the HAA5 result to DEP to return to compliance



PARTICIPATE!

This is your water system! Capital Region Water strongly encourages public interest and participation in our work.

- Capital Region Water Board of Directors meetings are held at 6:00PM on the 4th Wednesday of every month at 212 Locust Street with the exception of November and December which are held 1 week earlier.
- Take a tour of our drinking water treatment plant! Call 888-510-0606 or email info@capitalregionwater.com to learn more.



INVESTING IN OUR COMMUNITY FROM RAINDROP TO RIVER

 **888-510-0606**
capitalregionwater.com
info@CapitalRegionWater.com

