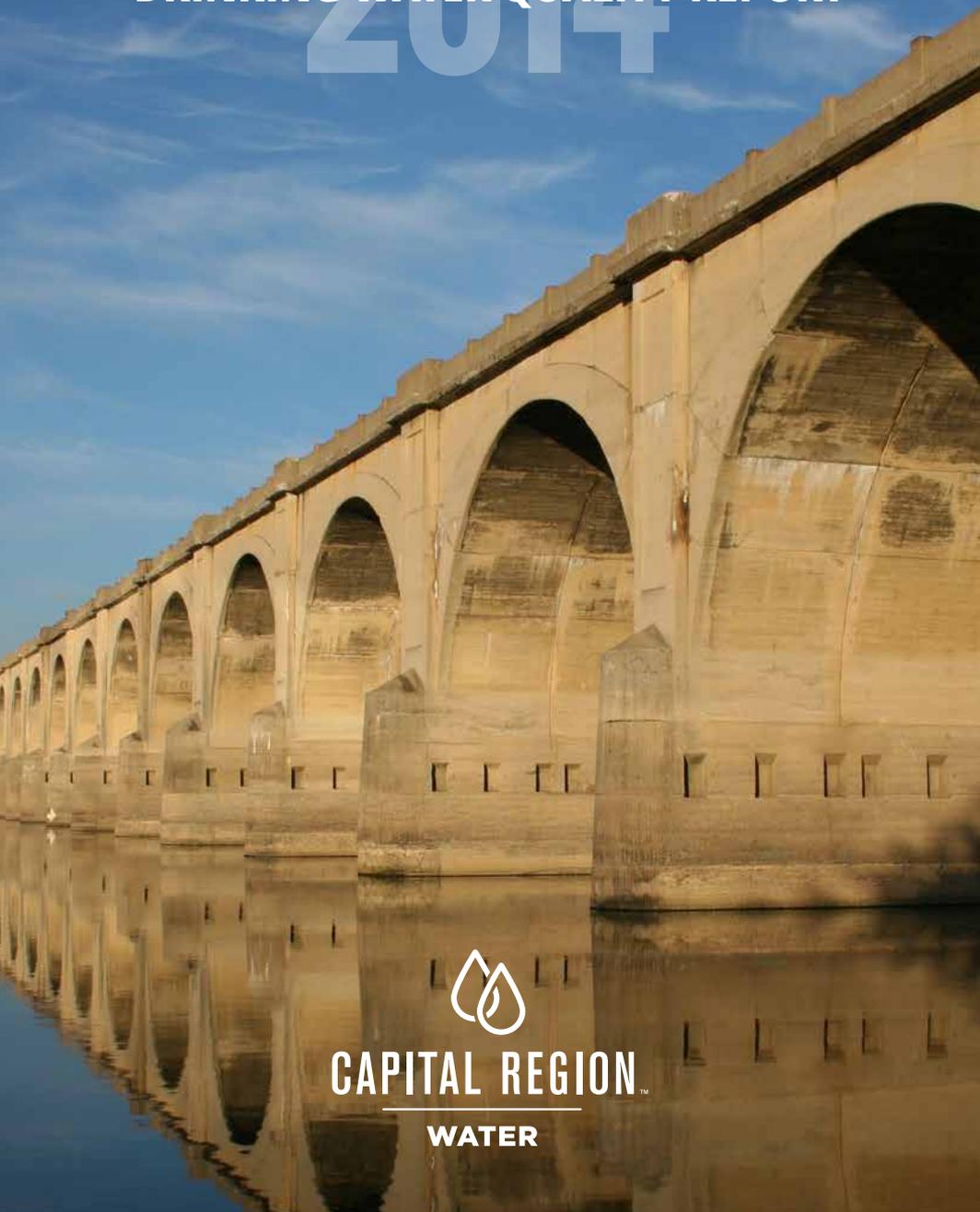


# 2014

**DRINKING WATER QUALITY REPORT**



**CAPITAL REGION™**

**WATER**



# CAPITAL REGION™

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## 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 annual Drinking Water Quality Report with you. Water is essential to life, economic development, and fire protection. Capital Region Water's 85 employees work 24 hours a day to provide our customers some of the highest quality drinking water in the country.

This 2014 report includes water quality information for the 2013 calendar year. The Environmental Protection Agency (EPA) requires all water utilities to produce and distribute water quality reports on an annual basis.

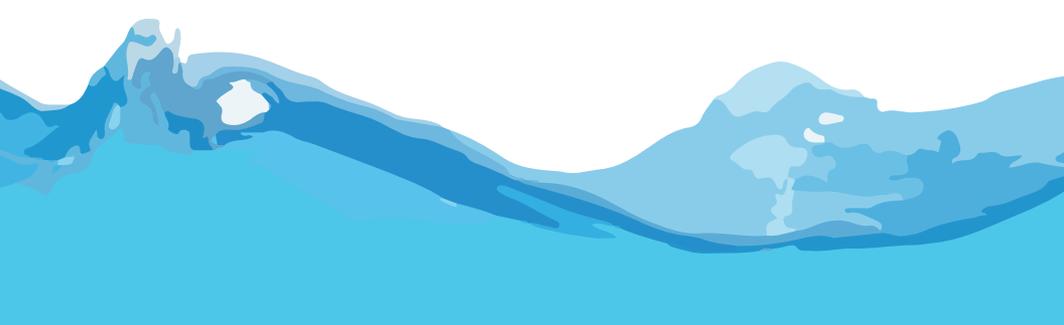
2013 was a year of transition for Harrisburg's water and sewer systems. Infrastructure and employees moved from the City to Capital Region Water. While we have many changes and improvements in the works, one thing has remained the same: drinking water so good, it exceeds national quality standards.

**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

## PARTNERSHIP FOR SAFE WATER: 10 YEAR DIRECTORS AWARD

This year, Capital Region Water will be honored by the Partnership for Safe Water with a 10 Year Directors Award. This award marks 10 years of achieving voluntary water quality standards far stricter than State and Federal water quality regulatory requirements. The Partnership for Safe Water is a voluntary optimization program led by the American Water Works Association, the EPA, and other large water organizations.

## COMMON QUESTIONS

**Q: *Who do we contact with water quality/service concerns?***

**A:** You can call Capital Region Water at 1-888-510-0606 any time to reach an employee or leave a message. All messages will be returned within one business day. Customers can also email [info@capitalregionwater.com](mailto:info@capitalregionwater.com) or visit [capitalregionwater.com](http://capitalregionwater.com) for more information.

**Q: *Does the City of Harrisburg manage the water system?***

**A:** No, Harrisburg's water and sewer infrastructure and employees moved from the City to Capital Region Water in November, 2013. Capital Region Water is a municipal authority under the PA Municipal Authorities Act.

**Q: *Do we have fluoride in our water?***

**A:** Yes, fluoride is added, as recommended by the American Dental Society, for the purpose of thwarting tooth decay. The yearly average concentration of fluoride was 0.69 mg/l, with the monthly maximum detected at 0.80 mg/l. The fluoride concentrations were well below the Maximum Contaminate Level (MCL) of 2.0 mg/l.

## PARTICIPATE!

We strongly encourage public interest and participation in our work.

- Capital Region Water Board of Directors meetings are held at 6:00PM on the 4<sup>th</sup> Wednesday of every month at 212 Locust Street with the exception of November and December which are held 1 week earlier.
- Customers interested in learning more about their water system can give us a call at 888-510-0606 or visit [capitalregionwater.com](http://capitalregionwater.com).
- Don't forget to follow us on twitter! @CapRegionWater

## SOURCE WATER INFORMATION

The William T. DeHart Dam and Reservoir, Capital Region Water's primary surface water source, is 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. 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 the 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 is available at: [capitalregionwater.com/dehart](http://capitalregionwater.com/dehart)



## DRINKING WATER TREATMENT

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, 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, the water is filtered to remove any remaining particulate matter. Chlorine is added for disinfection and the removal of pathogenic (disease producing) organisms. Zinc orthophosphate is added to control corrosion in the distribution system. Fluoride is also added as a tooth decay preventative. 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.

## 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).

## WATER CONTAMINANTS

The sources of all 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 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).



## **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, 2013. 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

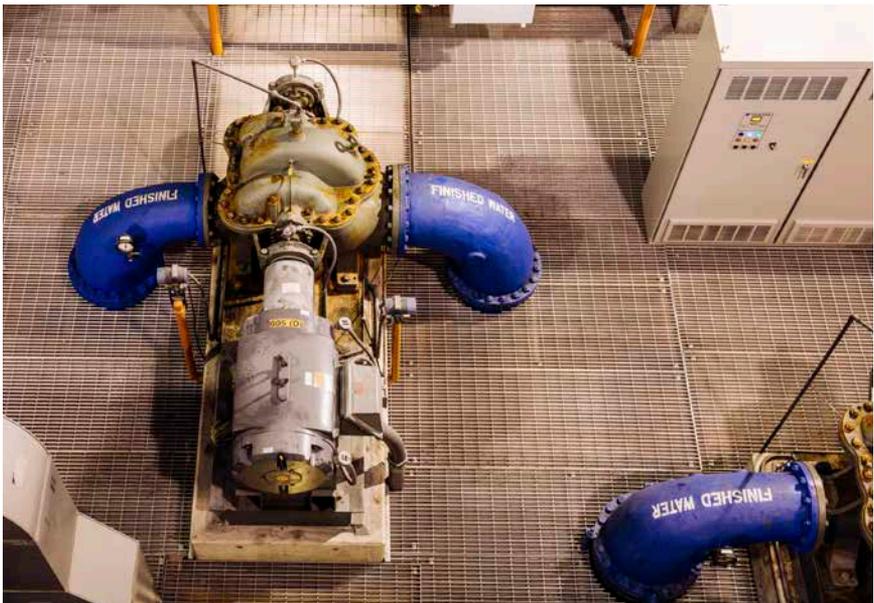
- **EPA:** Environmental Protection Agency
- **DEP:** Department of Environmental Protection
- **FDA:** Food and Drug Administration
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant 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 ( $\mu\text{g}/\text{L}$ )
- **ppm:** Parts per million, or milligrams per liter ( $\text{mg}/\text{L}$ )

## Chemical Contaminants

(2013 Sample Dates)

Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Violation (Y/N)	Sources of Contamination
Barium	2	2	0.019	-	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine	4	4	1.2	0.86 - 1.2	ppm	N	Additive used to control microbes
Flouride	2*	4	0.62	-	ppm	N	Erosion of natural deposits; Additive - promotes strong teeth; Fertilizer and aluminum factory discharge
Nitrite	10	10	0	-	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate	1	1	0	-	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Trihalomethanes	80	NA	41.1	28.2 - 57.1	ppb	N	By-product of drinking water chlorination
Haloacetic Acids	60	NA	34.8	11.6 - 57.6	ppb	N	By-product of drinking water chlorination
Arsenic	10	10	0	-	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production

\*EPA's MCL for flouride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.



## Entry Point Disinfection Residual

(May 29, 2013 Sample Date)

Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Violation (Y/N)	Sources of Contamination
Chlorine	0.2	0.74	0.74 - 1.79	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	36.7 - 68.7	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	1.12	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	0.072	08/22/13	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 2013 and the eight previous years demonstrated the absence of coliform bacteria within our potable water distribution system.





212 Locust Street, Suite 302  
Harrisburg, PA 17101-7107

**INVESTING IN OUR COMMUNITY  
FROM RAINDROP TO RIVER**

**888-510-0606**

[capitalregionwater.com](http://capitalregionwater.com)  
[@CapRegionWater](https://twitter.com/CapRegionWater)