



2015 Annual Water Quality Report

Montgomery Heights
District
PWS ID: WV3301017



We encourage you to read and share this annual Water Quality Report that can be viewed electronically at www.amwater.com/ccr/montgomeryheights.pdf

A Message from the West Virginia American Water President

To Our Valued Customer:

Every day across West Virginia, faucets, showers, dishwashers, washing machines and garden hoses are used with little worry about the water's safety, availability, or how it got there in the first place. The fact is, West Virginia American Water's water quality and operations professionals work hard day and night to deliver safe, clean, reliable water service to our customers.



We perform thousands of tests each year to comply with drinking water standards for about 100 regulated substances. All of our eight treatment plants participate in the Partnership for Safe Water Program and seven have been granted Directors Awards for exceptional plant optimization and performance. Less than one percent of all U.S. water utilities – and no other West Virginia water utilities – have achieved this honor. That means our water quality isn't just good - it's exceptional.

Each year, we provide you with our annual water quality report. Like so many years prior, you will find that we continue to supply water that meets or surpasses all state and federal water quality regulations. Our regulatory compliance record is a testament to our commitment to water quality and environmental stewardship. In 2015, West Virginia American Water systems performed 25 times better than the average community water system in West Virginia.

Furthermore, West Virginia American Water invests \$40-50 million each year to replace and upgrade water

infrastructure so that you have clean, reliable, affordable water service for your everyday life, for a lifetime. In 2015, we completed the following large infrastructure investment projects:

- Upper Kanawha Valley Pipeline Replacement/Reinforcement – \$6.7 million
- Large Main Replacement Projects – \$6.1 million
- Huntington Sand Removal System – \$3 million
- Weston Plant Automation – \$1.8 million
- Water Storage Tank Rehabilitation – \$1.2 million

It is no simple task to move water from rivers and reservoirs through the water treatment process to our distribution lines and tanks, and, finally your home, school or place of work. It requires having the right team of experts and technologies in place, and our scientists, chemists, engineers, operators and maintenance crews are always on the job. Because we invest our dollars responsibly, we provide our water at just over a penny per gallon – an exceptional value for a service that is so essential to our daily lives.

At West Virginia American Water, our customers are our top priority, and we are committed to providing you with the highest quality drinking water and service possible now and in the years to come. We are proud to be your local water service provider.

Sincerely,

Jeffrey L. McIntyre



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Where Does My Water Come From?

The Montgomery Heights District of West Virginia American Water purchased water for its customers from Armstrong/Deepwater Public Service District (PWSID # WV3301004.) The source of supply for Armstrong/Deepwater PSD was the Kanawha River, which is a surface water source. This report covers this time frame.

To learn more about our watershed on the internet, go to the **U.S. EPA's Search Your Watershed at www.epa.gov/surf2**

Commonly Asked Questions

Is there lead in my water?

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. West Virginia American 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>.

How much sodium is in my water?

The sodium level is approximately 6.93 ppm (or mg/L).

Is there fluoride in my water?

Armstrong/Deepwater PSD does not feed fluoride in their drinking water.

Source Water Assessment Completed

A Source Water Assessment Program (SWAP) is a result of the 1996 amendments to the Federal Safe Drinking Water Act (SDWA). Those amendments require all states to establish a program to assess the vulnerability of public water systems to potential contamination. The intake that supplies drinking water to the Armstrong PSD Treatment Facility has a high susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that this intake will become contaminated; only that conditions are such that the surface water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures.

Armstrong/Deepwater PSD completed their Source Water Protection Plan on September 2015. For more detailed information on this report contact our Water Quality Manager at 800-685-8660 or the West Virginia Bureau for Public Health at 304-558-2981.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important information with water users at their location who are not billed customers of West Virginia American Water and therefore do not receive this report directly.

Information on the Internet

The U.S. EPA Office of Water and the Centers for Disease Control and Prevention websites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. You may visit these sites or West Virginia American Water's website at the web addresses below:

West Virginia American Water
www.westvirginiaamwater.com

West Virginia Bureau for Public Health
www.wvdhhr.org/oehs

United States Environmental Protection Agency
www.epa.gov/safewater

Safe Drinking Water Hotline: (800) 426-4791

Centers for Disease Control and Prevention
www.cdc.gov

Special Monitoring:

Chromium, a metallic element, is found in rocks, soil, plants, and animals. Chromium is also used in steel making, metal plating, leather tanning, paints, dyes and wood preservatives. The most common forms of chromium in the environment are trivalent (chromium-3), hexavalent (chromium-6) and the metal form, chromium-0. EPA currently regulates chromium-6 as part of the total chromium drinking water standard. New health effects information has become available since the original standard was set, and EPA is reviewing this information to determine whether there are new health risks that need to be addressed. While this review is underway, the EPA suggested that systems begin voluntary monitoring for chromium -6. Additional information can be found at <http://water.epa.gov/drink/info/chromium/index.cfm>.

Substances Expected to be in Drinking Water

To ensure that tap water is of high quality, U.S. Environmental Protection Agency prescribes regulations



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limiting the amount of certain substances in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. West Virginia American Water's advanced water treatment processes are designed to reduce any such substances to levels well below any health concern.

The source of drinking water (both tap water and bottled water) includes 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, or wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or may result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also, come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control and Prevention) 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 or by calling our Customer Service Center at (800) 685-8660.

How to Read the Data Tables

For your information, we have compiled a list in the adjacent table showing what substances were detected in our drinking water during 2015. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. Please carefully review this report as it provides important information about drinking water and your health. The company remains committed to providing the highest quality water to our customers. For help with interpreting this table, see the "Table Definitions" section.

Unregulated substances are measured, but maximum allowed contaminant levels have not been established by the government.

Table Definitions and Abbreviations

- **Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **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):** The highest level of disinfectant routinely allowed in drinking water. Addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual 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 contamination.
- **NA:** Not applicable
- **NTU - Nephelometric Turbidity Units:** Measurement of the clarity, or turbidity, of water.
- **pCi/L (picocuries per liter):** Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).
- **ppm (parts per million):** One part substance per million parts water, or milligrams per liter.
- **ppb (parts per billion):** One part substance per billion parts water, or micrograms per liter.
- **ng/L (parts per trillion):** One part substance per trillion parts water, or nanograms per liter.



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- **µg/L:** Micrograms per liter or parts per billion.
- **pH:** A measurement of acidity, 7.0 being neutral.
- **Secondary MCL (Secondary Maximum Contaminant Level):** Contaminants levels that may result in cosmetic or aesthetic effects in drinking water.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

There's a lot more to your water bill than just water.

When you turn on the tap, it's easy to see what your water bill buys. What's not as easy to see is what it takes to bring that water to your home. The miles of pipeline hidden below the ground. The facilities that draw water from the source. The plant where it's treated and tested. The scientists, engineers, and maintenance crews working around the clock to make sure that water is always there when you need it. Your water payments are helping to build a better tomorrow by supporting needed improvements that will keep water flowing for all of us—today and well into the future. All for about a penny a gallon.

AT ABOUT A PENNY PER GALLON WATER IS A GREAT VALUE™

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About American Water

West Virginia American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water services to approximately 577,000 people.

American Water is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. Marking its 130th anniversary this year, the company employs 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com.

Water Quality Statement

West Virginia American Water purchases water from the Armstrong Public Service District to serve its customers in the Montgomery Heights District. The Armstrong PSD recently violated a drinking water standard and received a Notice of Violation in 2015 for an exceedance of Haloacetic Acids. A notice of this violation for our purchaser system was provided to all Montgomery Heights customers on January 22, 2016. West Virginia American Water is working with the Armstrong Public Service District and the West Virginia Bureau for Public Health to improve service to our customers.

The staff and management of West Virginia American Water are pleased to report that Montgomery Heights District did not receive any notices of violation (NOVs) from the West Virginia Bureau for Public Health in 2015..

The state requires a water utility to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.



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Water Quality Results

Regulated Substances (Measured on the Water Leaving the Armstrong/Deepwater Treatment Facility unless noted)

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range Low-High	Compliance Achieved	Typical Source
Alpha emitters (pCi/L)	2013	0	15	0.6 ± 0.5	NA	Yes	Radioactive decay of natural deposits
Barium (ppm)	2015	2	2	0.033	NA	Yes	Discharge of drilling waste; Discharge of from metal refineries; Erosion of natural deposits
Radium 228 (pCi/L)	2013	0	50	0.4 ± 0.8	NA	Yes	Radioactive decay of natural deposits and man-made sources
Nitrate (ppm)	2015	10	10	0.74	NA	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (Removal Ratio) ¹	2015	NA	TT	1.15	0.89 - 1.30	Yes	Naturally decaying vegetation
Turbidity (NTU) ²	2015	NA	TT	0.08	< 0.30	No	Soil runoff

¹ The Treatment Technique (TT) is met if the TOC Removal Ratio (based on a four quarter running annual average) is greater than or equal to 1.0.

² Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of filtration. A minimum of 100% of all samples taken to measure turbidity met the treatment technique requirement.

Regulated Substances for Montgomery Heights Distribution System (as monitored by West Virginia American Water)

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range Low - High	Compliance Achieved	Typical Source
Haloacetic Acids (HAAs) (ppb) ³	2015	0	60	59	15 - 87	Yes	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs)(ppb) ⁴	2015	0	80	69	16 - 102	Yes	By-product of drinking water chlorination
Chlorine (ppm) ⁵	2015	4	4	1.5	0.4 - 2.1	Yes	Water additive to control microbes

³ Based on a yearly running average. Some people who drink water containing Haloacetic Acids in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer.

⁴ Based on a yearly running average. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer.

⁵ Data from samples collected in the Montgomery Heights System

Regulated Substances: Lead and Copper Results (water tap samples)

Substance (units)	Year Sampled	MCLG	Action Level	Amount Detected 90 th Percentile	Number of Samples	Homes Above Action Level	Compliance Achieved	Typical Source
Copper (ppm)	2014	1.3	1.3	0.21	11	0	Yes	Corrosion of household plumbing systems, erosion of natural deposits
Lead (ppb)	2014	0	15	2	11	0	Yes	Corrosion of household plumbing systems, erosion of natural deposits

Bacterial Results (from the Montgomery Heights Distribution System)

Substance (units)	Year Sampled	MCLG	MCL	Highest Percentage Detected	Compliance Achieved	Typical Source
Total coliform (% Positive samples)	2015	0	5% Positive samples	0%	Yes	Bacteria naturally present in the environment

Unregulated Substances (Measured at the Water Leaving the Treatment Facility)

Substance (units)	Year Sampled	Average Results	Secondary MCL	Range Low-High	Typical Source
Sodium (ppm)	2015	6.93	NA	NA	Element that occurs naturally in water and soil; road salt; water softeners
Sulfate (ppm)	2015	26	250	NA	Mineral that occurs naturally in the soil



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