

Annual Drinking Water Quality Report

PWSID 1155050 – Bellavista Estates

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2021 is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH).

If you have questions about this report or want additional information about any aspect of your drinking water or want to know how to participate in decisions that may affect the quality of your drinking water, please contact Jared Linkous, Executive Director at 540-980-7710

The times and location of regularly scheduled board meetings are as follows: 2nd Tuesday of every month at 9:00 am in the Pulaski County Administration Building, located at 143 3rd Street NW, Pulaski, VA 24301

GENERAL INFORMATION

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. Contaminants that may be present in source water include: (i) microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (ii) 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; (iii) pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; (iv) 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 stormwater runoff, and septic systems; (v) 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 prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 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).

SOURCES and TREATMENT OF YOUR DRINKING WATER

The source of your drinking water is groundwater as described below:
A well within the Bellavista Estates subdivision.

Is there any treatment of your drinking water supply? (X) Yes () No

The Virginia Department of Health conducted a source water assessment of our system during 2020. The groundwater well was determined to be of high susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The assessment 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. The report is available by contacting Jared Linkous at the phone number or address given elsewhere in this drinking water quality report.

DEFINITIONS

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The table on the next page shows the results of our monitoring for the period of January 1st to December 31st, 2021. In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Maximum Contaminant Level, or MCL - 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.

Maximum Contaminant Level Goal, or 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.

Maximum Residual Disinfectant Level Goal or MRDLG: 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.

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

Non-detects (ND) - lab analysis indicates that the contaminant is not present

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

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

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

Level 1 assessment - a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 assessment - a very detailed study of the waterworks to identify potential problems and determine (if possible) why an *E. coli* PMCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity, or cloudiness, of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is monitored because it is a good indicator of the effectiveness of our filtration system.

WATER QUALITY RESULTS

Regulated Contaminants

Contaminant (units)	MCLG	MCL	Level Detected	Violation (Y/N)	Range	Date of Sample	Typical Source of Contamination
Nitrate (ppm)	10	10	2.9	N	NA	2019	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.32	N	0.06 – 0.32	2018	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

Barium (ppm)	2	2	0.0644	N	NA	2019	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	MRDLG = 4	MRDL = 4	0.84	N	0.3 – 1.03	2021	Water additive used to control microbes

Lead and Copper Contaminants

Contaminant (units)	MCL G	Action Level	90 th Percentile	Date of Sampling	# of Sampling Sites Exceeding Action Level	Typical Source of Contamination
Lead (ppb)	0	AL = 15	1.2	2019	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	AL = 1.3	0.0522	2019	0	Corrosion of household plumbing systems; Erosion of natural deposits

Monitoring Results for Sodium (Unregulated-No Limits Designated)			
Level Detected (unit)	Sample Date	Typical Source	Guidance
61.1 (mg/L) Range: NA	2019	Naturally Occuring; Addition of treatment chemicals/processes	For individuals on a <u>very</u> low sodium diet (500 mg/day), EPA recommends that drinking-water sodium not exceed 20 mg/L. Should you have a health concern, contact your health care provider.

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 presented in the above tables, though accurate, is more than one year old.

MCL's are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

VIOLATION INFORMATION

November 29, 2021	Failure to submit monthly operation reports during February – October 2021
October 27, 2021	Failure to monitor MPN for July - September 2021
October 27, 2021	Failure to submit a certification form for the 2020 CCR to ODW.
August 23, 2021	Failure to submit a copy of the 2020 CCR to ODW.
July 23, 2021	Failure to monitor MPN for April - June 2021
June 15, 2021	Failure to provide public notice for failure to monitor March 2021 routine bacteriological sample and chlorine residual
May 27, 2021	Failure to provide public notice for failure to monitor February 2021 routine bacteriological sample and chlorine residual
April 21, 2021	Failure to provide public notice for failure to have a licensed operator in attendance since February 2020
April 21, 2021	Failure to provide public notice for failure to monitor December 2020 routine bacteriological sample and chlorine residual
April 21, 2021	Failure to monitor March 2021 routine bacteriological sample and chlorine residual
April 21, 2021	Failure to monitor MPN for January – March 2021
March 16, 2021	Failure to monitor February 2021 routine bacteriological sample and chlorine residual
February 24, 2021	Failure to submit monthly operation reports during December 2020 and January 2021
February 8, 2021	Failure to submit a copy of the 2019 CCR to ODW.

February 3, 2021	Failure to provide public notice for failure to have a licensed operator in attendance since February 2020
February 3, 2021	Failure to monitor December 2020 routine bacteriological sample and chlorine residual
February 3, 2021	Failure to provide public notice for failure to monitor November 2020 routine bacteriological sample and chlorine residual
February 3, 2021	Failure to provide public notice for failure to monitor October 2020 routine bacteriological sample and chlorine residual
February 3, 2021	Failure to monitor nitrate/nitrite in 2021.
January 27, 2021	Failure to monitor MPN for October – December 2020
January 8, 2021	Failure to pay waterworks operation fee.
January 8, 2021	Reliability: Well pump recycling; hydro-pneumatic tank waterlogged
December 15, 2020	Failure to submit monthly operation reports during June, July, August, September, October and November 2020
December 15, 2020	Failure to monitor November 2020 routine bacteriological sample and chlorine residual
November 30, 2020	Failure to monitor October 2020 routine bacteriological sample and chlorine residual
September 28, 2020	Failure to provide public notice for lack of licensed operator in attendance
July 8, 2020	Failure to submit monthly operation reports during January, March, April and May 2020
July 8, 2020	Failure to have a licensed operator in attendance since February 2020
July 8, 2020	Failure to provide public notice for failure to monitor lead and copper tap samples during 2018.
July 8, 2020	Failure to provide public notice for failure to monitor lead and copper tap samples during 2017.

ADDITIONAL HEALTH INFORMATION

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. Pulaski County Public Service 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 (800-426-4791).

NOTICE TO CONSUMERS
of the Bellavista Estates and Riverbend Subdivision Waterworks
Waterworks ID No. 1155050 and 1155700

We have been advised by State health officials of a failure to perform required monitoring in accordance with the Commonwealth of Virginia/State Board of Health *Waterworks Regulations*.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monitoring period of 2020 and 2021 we did not monitor for combined nitrate/nitrite and therefore, cannot be sure of the quality of our drinking water during that time.

State health officials feel there is little need for concern about the safety of your water because past records show that our system has had no documented problems with nitrate/nitrite contamination; however, routine sampling and analysis is required to determine the quality of water delivered to our customers.

There is nothing you need to do at this time.

We plan to collect the samples for analysis in February 2022.

For more information, please contact:

Pulaski County Public Service Authority
143 Third St. NW, Suite 1
Pulaski, VA 24301
(540) 980-7710

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

SUBJECT: Pulaski County
Waterworks: Bellavista Estates
PWSID No.: 1155050
Waterworks: Riverbend Subdivision
PWSID No.: 1155700

VIOLATION: Failure to Monitor Combined Nitrate/Nitrite – 2020 & 2021

PUBLIC NOTIFICATION CERTIFICATION REPORT FORM

By mail delivery on _____(date)

By direct (hand) delivery on _____(date)

Alternate delivery method(s) for consumers who do not pay bills or have a service connection:

1. Posted on _____(date)

at the following locations: _____

2. Published in the _____(newspaper)

on _____(date)

Other approved method _____(Method and date)

Issued in Consumer Confidence Report on June 30, 2022 (date)

Issued in an Annual Report on _____(date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

(Printed Name)

(Signature)

RETURN TO: Office of Drinking Water
Abingdon Field Office
407 E. Main Street, Suite 2
Abingdon, VA 24210

**NOTICE TO CONSUMERS
of the following Waterworks:
Bellavista Estates Subdivision and Riverbend Subdivision**

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

State Health Officials have advised us of a failure to perform required monitoring in accordance with the Virginia Waterworks *Regulations*.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During October – December 2020, and February and March 2021, we did not monitor for bacteriological quality and chlorine residual concentrations. Therefore, we cannot be sure of the quality of our drinking water during that time.

One sample was required for each waterworks each month and none were analyzed.

State health officials feel there is need for concern about the safety of your water because a treatment process is used to assure your drinking water is safe. Waterworks using a treatment process require an individual that has been verified to have adequate knowledge and skill to produce safe water under all conditions and maintain safe water in the waterworks piping distribution system.

We have been advised by State health officials of a failure to have a Class 6 licensed operator in attendance for the waterworks listed above since February 2020 in accordance with the Virginia State Board of Health *Waterworks Regulations*.

Waterworks are required to have a licensed operator in responsible charge in order to assure the operation and management of a waterworks rests in qualified hands. The Virginia Board for Waterworks and Wastewater Works Operators, Department of Professional and Occupational Regulation issues six classes of waterworks licenses. The Virginia Department of Health designates the class of license required for each waterworks to maintain public health protection. The required class of operator license for a specific waterworks depends on the following factors: quality of the waterworks source raw water; type(s) of waterworks treatment process and; size of the waterworks.

There is nothing you need to do at this time. We will attempt to collect the proper number of required samples during April 2021, carefully review the results obtained by the laboratory, and collect additional samples when needed.

Additionally, you do not need to boil your water or take other corrective action. However, if you have specific health concerns, consult your doctor. This is not an emergency. If it had been, you would have been notified immediately. We plan to obtain the services of a licensed operator within the near future.

For more information, please contact:

Pulaski County Public Service Authority
143 Third St. NW, Suite 1
Pulaski, VA 24301
(540) 980-7710

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail

SUBJECT: Pulaski County
Waterworks: Bellavista Estates Subdivision
PWSID No.: 1155050
Waterworks: Riverbend Subdivision
PWSID No.: 1155700

VIOLATION: Monitoring Bacteriological and Chlorine Residual – October – December 2020 and
February - March 2021

VIOLATION: Failure to have a license operator

PUBLIC NOTIFICATION CERTIFICATION REPORT FORM

By mail delivery on _____(date)

By direct (hand) delivery on _____(date)

Issued in Consumer Confidence Report on June 30, 2022 (date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify that the attached public notice was distributed as indicated above and that the notice meets all content requirements.

(Printed Name)

(Signature)

RETURN TO: Office of Drinking Water
Abingdon Field Office
407 E. Main Street, Suite 2
Abingdon, VA 24210

NOTICE TO CONSUMERS
of the
BELLAVISTA ESTATES WATERWORKS

Waterworks ID No. 1155050

We have been advised by State health officials of a failure to perform required monitoring in accordance with the Commonwealth of Virginia/State Board of Health *Waterworks Regulations*.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the sampling periods June 1 through September 30, 2017 and June 1 through September 30, 2018, we did not complete required monitoring for lead and copper tap samples and therefore cannot be sure of the quality of our drinking water during that time.

Five samples were required for analysis and none was analyzed during 2018 and only four were analyzed during 2017.

State health officials feel there is little need for concern about the safety of your water because past records show that our waterworks has had no recent documented problems with lead and copper content in tap water samples; however, routine sampling and analysis is required to determine the quality of water delivered to our customers.

There is nothing you need to do at this time.

We plan to collect lead and copper tap samples for analysis during the June 1 through September 30, 2019, sampling period.

For more information, please contact:

Pulaski County Public Service Authority
143 Third St. NW, Suite 1
Pulaski, VA 24301
(540) 980-7710

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

SUBJECT: Pulaski County
Waterworks: Bellavista Estates
PWSID No.: 1155050

VIOLATION: FTM Lead and Copper–January 1, 2017, through December 31, 2017
And January 1, 2018, through December 31, 2018

PUBLIC NOTIFICATION CERTIFICATION REPORT FORM

By mail delivery on _____
(date)

By direct (hand) delivery on _____
(date)

Issued in Consumer Confidence Report on June 30, 2022 (date)

New billing customers will be notified of any ongoing violation for which notice has previously been issued.

I hereby certify the attached public notice was distributed as indicated above and the notice meets all content requirements.

(Signature)

RETURN TO: Abingdon Field Office, Office of Drinking Water
407 East Main Street – Suite 2
Abingdon, Virginia 24210