KGVA Service Authority

CONSUMER CONFIDENCE REPORT

2023 Drinking Water Quality

Canterbury System

Circle System

Courthouse System

Dahlgren System

Fairview Beach/Potomac Landing System

Hopyard Farm System

Nindes System

Oakland Park System

St. Paul's/Owens System

King George Service Authority

2023
2023 ANNUAL DRINKING WATER QUALITY REPORT FOR KGCSA – CANTERBURY SUBDIVISION

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. 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 Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

If you:
- **Have questions about this report,**
- **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 use the QR code or link on the right. It will direct you to an online form where you may ask any questions. Open your phone's camera, point it at the QR code and click on the link that appears.

https://forms.office.com/r/Af2cZdizNr

Or please contact:
Mark Inboden, General Manager
Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducer la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:
- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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 sources of your drinking water are two groundwater wells located off Kent Road and Ripon Court. It is provided with chlorine disinfection.

The VDH conducted a source water assessment of our system during 2002. Our wells were determined to be of low susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	**Definition**
MCLG	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.

Unit Descriptions	
MCL	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated.
MPL	MPL: State Assigned Maximum Permissible Level.
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least one bacteriological sample is collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
HAA5 [Haloacetic acids five] (ppb)	-	60	1.0			2023	No	By-product of drinking water disinfection.
TTHMs [Total Trihalomethanes] (ppb)	-	80	2.9			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Barium (ppm)	2	2	0.013			2023	No	Erosion of natural deposits.
Fluoride (ppm)	-	-	0.63			2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND			2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.07† 90th Percentile	ND	0.083	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	1.88† 90th Percentile	ND	3.76	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.								

Contaminants	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Optional (Non-Regulated) Contaminants						
Sodium (ppm)*	-	-	81.6	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.						

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.2 Range: 0.34 – 2.20	Monthly	No	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Canterbury Subdivision** did not have any violations during **2023.**

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

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. **KGCSA – Canterbury Subdivision** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Assistance was provided by the Virginia Department of Health, Office of Drinking Water, Richmond Field Office, and the EPA CCR iWriter Application.

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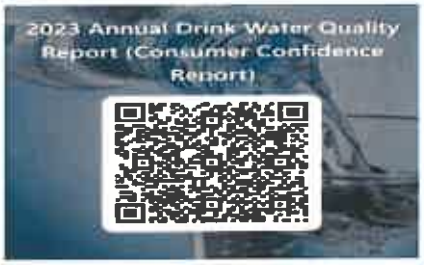

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SOURCES AND TREATMENT OF YOUR DRINKING WATER

The source of your drinking water are two groundwater wells. Well #1 is located on Carleton Drive and Well #2 is located off Route 205. It is provided with chlorine disinfection.

The VDH conducted a source water assessment of our system during 2002. Our wells were determined to be of low susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

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MRDL	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 control of microbial contaminants.
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Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Inorganic Contaminants								
Barium (ppm)	2	2	0.023	0.019	0.023	2023	No	Erosion of natural deposits.
Fluoride (ppm)	-	-	0.76	0.62	0.76	2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND			2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.07† 90th Percentile	ND	0.089	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	4.38† 90th Percentile	ND	8.76	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.

†The total number of samples collected during the sample year that exceeded the AL was 0.

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Optional (Non-Regulated) Contaminants								
Sodium (ppm)*	-	-	91.4	83.3	91.4	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.

*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.4 Range: 0.10 – 4.30	Monthly	Yes	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Circle Subdivision** did not have any official violations during **2023**. Chlorine residuals of below 0.2 mg/L and over 4.0 mg/L were observed in the distribution system during 2023 based on monitoring data.

ADDITIONAL HEALTH INFORMATION

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The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:

- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit

the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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

Courthouse water system consumers are provided water from four ground water sources. Arnold's Corner Well #2, Purkin's Corner Well, Peppermill Well, and Cleydael Well supply water to the system. Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water.

The VDH conducted a source water assessment of our system during 2019. Our wells were determined to be of high susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	**Definition**
MCLG	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.

Unit Descriptions	
MCL	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least five bacteriological samples are collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
TTHMs [Total Trihalomethanes] (ppb)	-	80	0.6			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Fluoride (ppm)	-	-	0.35			2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND			2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.24† 90th Percentile	ND	0.277	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	ND† 90th Percentile	ND	2.82	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.								
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	9.4			2023	No	Erosion of natural deposits.
Beta emitters (pCi/L)	0	50	2.0			2023	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.8			2023	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Optional (Non-Regulated) Contaminants						
Sodium (ppm)*	-	-	52	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.						

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.04 Range: 0.17 – 2.96	Monthly	Yes	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Courthouse** did not have any official violations during **2023**. Chlorine residuals of below 0.2 mg/L were observed in the distribution system during 2023 based on monitoring data.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

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. **KGCSA – Courthouse** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Assistance was provided by the Virginia Department of Health, Office of Drinking Water, Richmond Field Office, and the EPA CCR iWriter Application.

2023
2023 ANNUAL DRINKING WATER QUALITY REPORT FOR KGCSA – DAHLGREN

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. 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 Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

If you:

- **Have questions about this report,**
- **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 use the QR code or link on the right. It will direct you to an online form where you may ask any questions. Open your phone's camera, point it at the QR code and click on the link that appears.

https://forms.office.com/r/Af2cZdizNr

Or please contact:
Mark Inboden, General Manager
Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducer la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:

- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations

establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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

Dahlgren water system consumers are provided water from five ground water sources. Saft well located on Dahlgren Road, Payne Well located on Payne Drive, Bumbrey Well located on James Madison Parkway, Monmouth Woods Well #1 located on Navigator Lane, and Monmouth Woods Well #2 is located on Navigator Lane. Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water.

The VDH conducted a source water assessment of our system during 2019. Our wells were determined to be of high susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	**Definition**
MCLG	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.

Unit Descriptions	
MCL	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least three bacteriological samples are collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
HAA5 [Haloacetic acids five] (ppb)	-	60	2.1			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Fluoride (ppm)	-	-	0.97	0.85	0.97	2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND	ND	ND	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.23† 90th Percentile	ND	0.260	2023	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	ND† 90th Percentile	ND	10.2	2023	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.								
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	3.5			2023	No	Erosion of natural deposits.
Beta emitters (pCi/L)	0	50	1			2023	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.

Contaminants	MCLG	MCL	Level Detected	Range Low	Range High	Sample Date	Violation	Typical Source
Optional (Non-Regulated) Contaminants								
Sodium (ppm)*	-	-	102	92.1	102	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.								

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.01 Range: 0.01 – 2.17	Monthly	Yes	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Dahlgren** did not have any official violations during **2023**. Chlorine residuals of below 0.2 mg/L were observed in the distribution system during 2023 based on monitoring data.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

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. **KGCSA – Dahlgren** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.

- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Assistance was provided by the Virginia Department of Health, Office of Drinking Water, Richmond Field Office, and the EPA CCR iWriter Application.

2023
2023 ANNUAL DRINKING WATER QUALITY REPORT FOR KGCSA – FAIRVIEW BEACH/POTOMAC LANDING

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. 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 Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

If you:

- **Have questions about this report,**
- **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 use the QR code or link on the right. It will direct you to an online form where you may ask any questions. Open your phone's camera, point it at the QR code and click on the link that appears.

https://forms.office.com/r/Af2cZdizNr

Or please contact:
Mark Inboden, General Manager
Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducer la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:

- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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

Fairview Beach water system consumers are provided water from two ground sources. Fairview Beach Well #2 is located at Fairview Drive and Fairview Beach Well #3 is located on Riverview Drive. Your water is treated by filtration and disinfection. Filtration removes particles suspended in the source water. Particles typically include clays and silts, natural organic matter, iron, manganese, and microorganisms. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water.

The VDH conducted a source water assessment of our system during 2019. Our wells were determined to be of low susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	**Definition**
MCLG	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.

Unit Descriptions	
MCL	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet **all** Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least one bacteriological sample is collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	1	June 2023	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
TTHMs [Total Trihalomethanes] (ppb)	-	80	1.4			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Barium (ppm)	2	2	0.03	0.021	0.03	2022	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	0.09	ND	0.09	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.79† 90th Percentile	ND	1.34	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	14† 90th Percentile	ND	16	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 1.								
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	0.6			2023	No	Erosion of natural deposits.
Beta emitters (pCi/L)	0	50	9			2023	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.4			2021	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Optional (Non-Regulated) Contaminants								
Sodium (ppm)*	-	-	51	42.5	51	2022	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.								

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.00 Range: 0.26 – 1.86	Monthly	No	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Fairview Beach/Potomac Landing** did not have any official violations during **2023**. Following the total coliform positive sample in June 2023, repeat and trigger samples came back absent for total coliform.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

Nitrate
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.

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. **KGCSA – Fairview Beach/Potomac Landing** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Assistance was provided by the Virginia Department of Health, **Office of Drinking Water, Richmond Field Office, and the EPA CCR iWriter Application.**

2023
2023 ANNUAL DRINKING WATER QUALITY REPORT FOR KGCSA – HOPYARD FARMS

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. 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 Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

If you:

- **Have questions about this report,**
- **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 use the QR code or link on the right. It will direct you to an online form where you may ask any questions. Open your phone's camera, point it at the QR code and click on the link that appears.

https://forms.office.com/r/Af2cZdizNr

Or please contact:
Mark Inboden, General Manager
Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducer la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:

- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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

Hopyard Farms water system consumers are provided water from two ground water sources. Well A and Well F are located on Port Conway Road. Your water is treated by filtration and disinfection. Filtration removes particles suspended in the source water. Particles typically include clays and silts, natural organic matter, iron, manganese, and microorganisms. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water.

The VDH conducted a source water assessment of our system during 2019. Our wells were determined to be of low susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	**Definition**
MCLG	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	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as

Unit Descriptions	
	close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least two bacteriological samples are collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
TTHMs [Total Trihalomethanes] (ppb)	-	80	2.1			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Barium (ppm)	2	2	0.051			2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND			2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.038† 90th Percentile	ND	0.049	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	2.22† 90th Percentile	ND	3.92	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.								
Radioactive Contaminants								
Beta emitters (pCi/L)	0	50	3.2			2023	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.9			2023	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Optional (Non-Regulated) Contaminants						
Sodium (ppm)*	-	-	48.8	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.						

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.19 Range: 0.30 – 1.85	Monthly	No	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Hopyard Farms** did not have any violations during **2023**.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

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. **KGCSA – Hopyard Farms** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

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- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.

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- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
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This Drinking Water Quality Report was prepared by:

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5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Assistance was provided by the Virginia Department of Health, Office of Drinking Water, Richmond Field Office, and the EPA CCR iWriter Application.

2023
2023 ANNUAL DRINKING WATER QUALITY REPORT FOR KGCSA – NINDE'S STORE

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. 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 Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

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Mt. Jackson, VA 22842
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Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducer la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:

- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations

establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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

Ninde's Store water system consumers are provided water from a ground water source located on Ridge Road. Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water.

The VDH conducted a source water assessment of our system during 2019. Our wells were determined to be of low susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	**Definition**
MCLG	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	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as

Unit Descriptions	
	close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least one bacteriological sample is collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
HAA5 [Haloacetic acids five] (ppb)	-	60	1.8			2023	No	By-product of drinking water disinfection.
TTHMs [Total Trihalomethanes] (ppb)	-	80	4.8			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Barium (ppm)	2	2	0.017			2023	No	Erosion of natural deposits.
Fluoride (ppm)	-	-	0.92			2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND			2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.056† 90th Percentile	ND	0.065	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	ND† 90th Percentile	ND	ND	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.								
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	0.9			2020	No	Erosion of natural deposits.
Beta emitters (pCi/L)	0	50	3.7			2020	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.9			2020	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Optional (Non-Regulated) Contaminants						
Sodium (ppm)*	-	-	98.7	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.						

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 0.83 Range: 0.26 – 2.02	Monthly	No	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Ninde's Store** did not have any violations during **2023**.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

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. **KGCSA – Ninde's Store** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind.
- residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Assistance was provided by the Virginia Department of Health, Office of Drinking Water, Richmond Field Office, and the EPA CCR iWriter Application.

2023
2023 ANNUAL DRINKING WATER QUALITY REPORT FOR KGCSA – OAKLAND PARK

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. 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 Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

If you:

- **Have questions about this report,**
- **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 use the QR code or link on the right. It will direct you to an online form where you may ask any questions. Open your phone's camera, point it at the QR code and click on the link that appears.

https://forms.office.com/r/Af2cZdizNr

Or please contact:
Mark Inboden, General Manager
Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducer la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:

- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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

Oakland Park water system consumers are provided water from two water sources. The Oakland Park Well is located at Oakland Drive and the Sealston well is located on Fletcher's Chapel Road. Your water is treated by filtration and disinfection. Filtration removes particles suspended in the source water. Particles typically include clay, silts, natural organic matter, iron, manganese, and microorganisms. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water.

The VDH conducted a source water assessment of our system during 2019. Our wells were determined to be of low susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	**Definition**
MCLG	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.

Unit Descriptions	
MCL	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least two bacteriological samples are collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
HAA5 [Haloacetic acids five] (ppb)	-	60	1.2			2023	No	By-product of drinking water disinfection.
TTHMs [Total Trihalomethanes] (ppb)	-	80	3.1			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Barium (ppm)	2	2	0.078	0.040	0.078	2023	No	Erosion of natural deposits.
Fluoride (ppm)	-	-	0.24	ND	0.24	2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND			2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.14† 90th Percentile	0.024	0.598	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	ND† 90th Percentile	ND	3.35	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.								
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	0.5	ND	0.5	2020	No	Erosion of natural deposits.
Beta emitters (pCi/L)	0	50	3.9	3.5	3.9	2020	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.5	0.2	0.5	2020	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Optional (Non-Regulated) Contaminants								
Sodium (ppm)*	-	-	45.8	9.91	45.8	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.								

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.01 Range: 0.57 – 2.03	Monthly	No	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – Oakland Park** did not have any violations during **2023**.

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

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. **KGCSA – Oakland Park** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind
- residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.

- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Assistance was provided by the Virginia Department of Health, Office of Drinking Water, Richmond Field Office, and the EPA CCR iWriter Application.

2023
2023 ANNUAL DRINKING WATER QUALITY REPORT FOR KGCSA – ST. PAUL'S CHURCH/OWENS

INTRODUCTION

We are pleased to present this Annual Drinking Water Quality Report (Consumer Confidence Report) for calendar year 2023 as required by the Safe Drinking Water Act (SDWA). This report is designed to inform you about the details and quality of drinking water delivered by your water system. 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 Federal and State requirements administered by the U.S. Environmental Protection Agency (EPA) and the Virginia Department of Health (VDH).

If you:
- **Have questions about this report,**
- **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 use the QR code or link on the right. It will direct you to an online form where you may ask any questions. Open your phone's camera, point it at the QR code and click on the link that appears.

https://forms.office.com/r/Af2cZdizNr

Or please contact:
Mark Inboden, General Manager
Inboden Environmental Services, Inc.
5790 Main Street
Mt. Jackson, VA 22842
(800) 648-1010

Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducer la información. Copias en español de este informe pueden ser hechas a petición.

GENERAL INFORMATION

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances resulting from the presence of animals or from human activity. Water from surface sources is treated to make it safe to drink while groundwater may or may not have any treatment.

Contaminants that may be present in source water include:
- Microbial contaminants: include viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants: include 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.
- Pesticides and herbicides: may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants: include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants: may be naturally occurring or can result from oil and gas production as well as mining activities.

In order to ensure that tap water is safe to drink, U. S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water in order to provide 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 (EPA) 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 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 / Centers for Disease Control (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

St. Paul's Church/Owens water system consumers are provided water from two ground water sources located on Strawberry Lane and on Owens Drive. Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water.

The VDH conducted a source water assessment of our system during 2019. Our wells were determined to be of low susceptibility to contamination. Customers can pick up a copy of the source water assessment at the Service Authority Office located at 9207 King's Highway.

DEFINITIONS

In the tables for the report, 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:

Unit Descriptions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
Important Drinking Water Definitions	
Term	**Definition**
MCLG	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.

Unit Descriptions	
MCL	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a 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.
MRDL	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 control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
RAA	RAA: Running Annual Average is the average of analytical results for samples taken during the previous four calendar quarters.

CONTAMINANT MONITORING

We constantly monitor for various contaminants in the water supply to meet all Federal and State regulatory requirements. **The tables that follow list contaminants that had some level of detection and a select few contaminants of consumer concern that were not detectable.** Many other contaminants have been analyzed, but were not present or were below the detection limits of the lab equipment and may not be listed in these tables.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Unit of Measurement	MCLG	MCL	Level Detected	Sample Date	Violation	Typical Source
Microbiological							
At least one bacteriological sample is collected from the distribution system each **month**.							
Total Coliform Bacteria	Present or Absent	0	Presence of coliform bacteria in >1 sample per month	0	Monthly	No	Naturally present in the environment.
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the waterworks.							

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
HAA5 [Haloacetic acids five] (ppb)	-	60	1.3			2022	No	By-product of drinking water disinfection.
TTHMs [Total Trihalomethanes] (ppb)	-	80	4.1			2023	No	By-product of drinking water disinfection.
Inorganic Contaminants								
Barium (ppm)	2	2	0.019	ND	0.019	2023	No	Erosion of natural deposits.
Fluoride (ppm)	-	-	1.24	0.92	1.24	2023	No	Erosion of natural deposits.
Nitrate [measured as Nitrogen] (ppm)	10	10	ND			2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead & Copper								
Copper (ppm)	1.3	1.3 (AL)	0.07† 90th Percentile	ND	0.227	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0.0	15 (AL)	ND† 90th Percentile	ND	ND	2022	No (AL Exceedance)	Corrosion of household plumbing systems; Erosion of natural deposits.
†The total number of samples collected during the sample year that exceeded the AL was 0.								
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	3	ND	3	2023	No	Erosion of natural deposits.
Beta emitters (pCi/L)	0	50	3.2	1.9	3.2	2023	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.2	ND	0.2	2023	No	Erosion of natural deposits.

Contaminants	MCLG	MCL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Optional (Non-Regulated) Contaminants								
Sodium (ppm)	-	-	100	67	100	2023	No	Erosion of natural deposits; Leaching; De-icing salt runoff; Water softeners.
*There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons who physician has placed them on severely restricted sodium diets.								

Disinfectant	MCLG	MCL	Level Found (Range)	Sample Date	Violation	Typical Source
Disinfection Residual						
Free Chlorine (ppm)	4 (MRDLG)	4 (MRDL)	RAA: 1.01 Range: 0.55 – 2.42	Monthly	No	Water additive used to control microbes.

VIOLATION INFORMATION

We are pleased to report that the **KGCSA – St. Paul's Church/Owens** did not have any violations during **2023.**

ADDITIONAL HEALTH INFORMATION

Certain contaminants (such as radon, arsenic, nitrate, and lead), if present in your drinking water, may be of special concern to consumers. If any of those contaminants are present, health information is provided below to inform you about them.

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. **KGCSA – St. Paul's Church/Owens** 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.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind.
- residents that storm drains dump directly into your local water body.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure that future generations use water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

This Drinking Water Quality Report was prepared by:

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