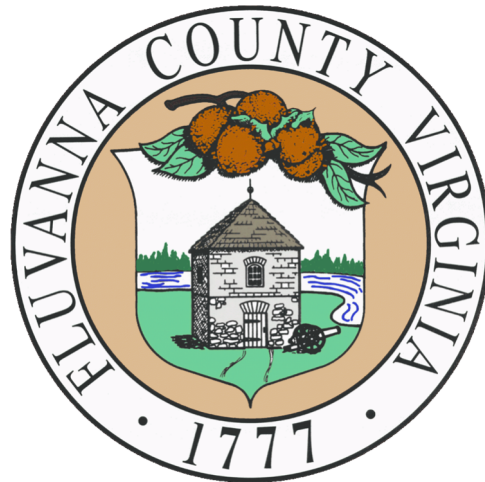


FLUVANNA COUNTY ZION CROSSROADS COMMUNITY WATERWORKS

EMERGENCY MANAGEMENT PLAN
FOR EXTENDED POWER OUTAGES



Public Works Department
Fluvanna County
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September 2022

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1. Introduction

The ability to provide potable water is critical to maintaining public health and preventing disease. Long term power outages are one of the largest threats to this mission. Several types of events, both natural and man-made can result in extended power outages (Ice Storms, Hurricanes, Tornadoes, Flooding, Terrorism, Vandalism, etc.). The response to these items are included in the Emergency Management Plan for the waterworks.

The Emergency Management Plan for Extended Power Outages regulation establishes the expectation that community waterworks will develop and maintain a plan outlining how the waterworks will supply potable water to its customers in the event of an extended power outage. Community waterworks are expected to supply potable water to their customers during an extended power outage, although not necessarily at the usual quantity, pressure and location, or without interruption.

For the purposes of the plan, community waterworks may not (without an agreement in place) rely on other state or federal agencies (such as the Virginia Department of Emergency Management (VDEM), or the Federal Emergency Management Agency (FEMA)) to supply water in the event of an extended power outage.

1.1 Purpose

The purpose of this Emergency Management Plan for Extended Power Outages (EMP) is to outline how Fluvanna County Public Works Department will operate the Fluvanna County Zion Crossroads Community Waterworks (FCZCCW) during an extended power outage. This plan is not intended cover all scenarios, but seeks to provide general guidance, contact information, and minimum standards to assist Fluvanna County in responded to extended power outages.

2. Roles and Responsibilities

- Coordinate the maintenance and continued operation of utilities
- Assist with assuring the continued supply of potable water
- Assist with providing minimum essential sanitation services
- Coordinate debris removal
- All emergencies must be reported to Waterworks personnel listed in 4.2 of this EMP

3. Concept of Operations

3.1 Community Demand

1. Average: 75,000 GPD
2. Minimum: 35,500 GPD (1/2x Average Demand)
3. Maximum: 125,000 GPD
4. Estimated Population Served: up to ~ 750 people (assumes 100 gallons per day per person)

**Based upon current allocation from Fluvanna Women's Department of Corrections Waterworks (PWSID 2065250)*

3.2 Emergency Disinfection Procedures

3.2.1 Distribution System

Should the quality of potable water within the FCZCCW be compromised in event of an emergency, the distribution system and storage tanks should be disinfected as soon as possible to ensure that contaminated water is not used by customers in any way.

Water mains shall be flushed prior to system disinfection, at a velocity not below 2.5 ft/sec. Adequate care should be taken with drainage of the flushing water to ensure that disposal of the flushing water does not result in any physical or environmental damage. After the system has been adequately flushed, a sodium hypochlorite solution shall be applied at a constant rate. The sodium hypochlorite solution shall be proportioned such that the chlorine concentration in the system is maintained at a minimum of 50 mg/L available chlorine. The solution shall be applied with a gasoline or electrical-powered chemical feed pump designed for chlorine solution application.

Table 3-1. Chlorine required to produce 50 mg/L concentration in 100 ft. of pipe – by diameter

PIPE SIZE (IN)	100 PERCENT CHLORINE (LB.)	1 PERCENT CHLORINE SOLUTIONS (GAL.)
4	0.027	0.33
6	0.061	0.73
8	0.108	1.30
10	0.170	2.04
12	0.240	2.88
16	0.430	5.12
20	0.675	8.00

During the application of chlorine, valves, tees, hydrants, and all other appurtenances shall be operated as to properly disinfect appurtenances. After applicable retention period, the highly chlorinated water shall be flushed out of the mains until the chlorine concentration reaches a level below 1 mg/L, or until the concentration in the water is no higher than that generally occurring in the system. Prior to disposal of the chlorinated water, the de-chlorination process shall occur in order to not allow heavily chlorinated water to flow into a waterway. See references AWWA C651, C652, and 653 acceptable methods of chlorine neutralization.

After final flushing and disinfection has occurred, bacteriological sampling and any other sampling required by the Waterworks Regulations shall occur throughout the water mains to ensure the absence of bacteria, chemicals, byproducts, and other pathogens or contaminants. Samples shall be collected at least 24 hours apart at intervals to properly evaluate the quality of the water after disinfection. Should the results indicate the presence of bacteria, chemicals, or other pathogens or contaminants, disinfection shall be repeated if required by the Waterworks Regulations until a satisfactory sample is returned.

3.2.2 Storage Tanks

Disinfection of tanks or water storage facilities requires high levels of free chlorine within the storage facility to safely inactivate bacteria and other potential pathogens. Two factors that can affect the disinfection process are pH and temperature. Typically, disinfection will not be as effective at a low temperature compared to a high temperature; a lower temperature will require a significantly higher dosage of chlorine.

The procedure for disinfecting the water in the tank involves chlorination of the full storage facility such that the water will have a free chlorine residual concentration above 10 mg/L. This is achieved by filling the storage facility with chlorine in a manner that results in a uniform chlorine concentration throughout the disinfection operation. Equipment needed to achieve this include a liquid-chlorine cylinder, gas-flow chlorinator, chlorine injector, safety equipment, and appropriate solution tube to feed the chlorine solution into the tank water. The feeding apparatus shall be located on the inlet pipe close to the tank, to facilitate even mixing with the influent water.

The procedure for disinfecting the water in the tank involves chlorination of the full storage facility in accordance with AWWA C652-11.

After the disinfection process is complete, satisfactory bacteriological and chlorine residual results are necessary before the facility can be brought back online. Should the bacteriological sampling results indicate the presence of bacteria, disinfection shall be repeated until a satisfactory sample is returned. If chlorine residuals need to be rebalanced after disinfection, bacteriological samples should be collected after chlorine residuals to ensure that disinfection has been effective.

The discharge of the heavily chlorinated water shall be examined and should there be any chance of physical or environmental damage occurring as a result of the discharge, a reducing agent shall be applied to the discharge in order to neutralize the chlorine residual. Federal, state, or local environmental regulations may require special provisions or permits prior to disposal of highly chlorinated water.

3.3 Potable Water Procedures

3.3.1 Obtaining:

General operating philosophy for obtaining potable water during power outages lasting less than 5 days:

Fluvanna County will continue normal operation utilizing the supply at the Fluvanna Women's Department of Corrections Waterworks (PWSID 2065250) with assistance from the emergency generator at the booster station. The assigned operator will ensure the fuel reserve is adequate for overnight operation. The fuel tank will be topped off at the end of each normal business day while this plan is activated. If the plan is active over holidays or weekends, the on-call operator will assume the responsibilities of the assigned operator.

General operating philosophy for obtaining potable water during power outages lasting greater than 5 days:

Fluvanna County will initialize the emergency mutual aid agreement with Louisa County Water Authority (PWSID 2109990). This agreement dated December 16, 2020 states that in the case of an emergency, Fluvanna County may rely on the Louisa County Zion Crossroads water system as a temporary supply to ensure safe operation of the water system. The booster station will remain active utilizing the backup generator as needed to fill the elevated storage tank. The assigned operator will still be responsible for ensuring the fuel reserve is adequate for overnight operation. The fuel tank will be topped off at the end of each normal business day while this plan is activated, in case of emergencies. If the plan is active over holidays or weekends, the on-call operator will assume the responsibilities of the assigned operator.

3.3.2 Distribution:

The operation of the distribution system remains the same as normal operating conditions. The elevated storage tank will be the primary source of water during an extended power outage. Tank levels will be monitored more carefully to ensure no additional concerns for line breaks exist.

3.3.3 Location

This section contains information on where this plan will be made available and any equipment that will be necessary to continue supplying water to an area.

3.3.3.1 Description or Location of Current EMP Provisions to Supply Water

The location of the current Fluvanna County ALL-HAZARDS EMERGENCY OPERATIONS PLAN can be found at the Emergency Operations Center Fluvanna County Public Works building and the Fluvanna County Administrations Building, and it includes provisions to supply Fluvanna County residences with clean drinking water in the case of an emergency where normal methods of obtaining clean drinking water are unavailable.

The Zion Crossroads Emergency Management Plan (as it is read and with VDH approval) will be located at the Zion Crossroads Booster Station, and copies will be available at the Fluvanna County Public Emergency Operations Center (in the Administrations Building) and the Fluvanna County Public Works Office.

3.3.3.2 Preventative Measures Implemented

- On-site back-up generator at the booster station
- On-site tractor with backhoe and front-end loader
- Listed as a priority by Dominion Virginia Power to have service reconnected in the case of an outage
- Heavy Duty 4x4 Utility Truck stocked with supplies to handle most line breaks
- Operate in accordance with the Fluvanna County All-Hazards Emergency Operations Plan and the Fluvanna County Emergency Services Organization.

4. Key Points of Contact

4.1 State Agency

Virginia Department of Health/Office of Drinking Water	
Lexington Field Office	540-463-7163
District Engineer	
Taylor Valencia	540-463-0421
Lexington Field Office Director	
Mark Perry, PE.....	540-463-0400
24 Hour Emergency Number.....	866-531-3068
Fluvanna County Health Department.....	434-591-1965

4.2 Water Utilities / Waterworks Personnel

Fluvanna County Department of Public Works - Utilities	
Brian Estes	
Direct.....	434-591-1925
Emergency.....	434-260-9037

4.3 Wholesale Water Supplier Contacts

Fluvanna Women’s Correctional Center Operated by the Virginia Department of Corrections	
.....	434-984-3700
Louisa County Water Authority	540-967-1122

4.4 Local Emergency Management Agency

Fluvanna County	
Office of Emergency Services	434-591-1927
Debbie Smith MCP, MCSA	

4.5 Utility Providers

Electricity	
Dominion Virginia Power.....	866-366-4357
Account Number: 9501772108	
Fuel	
County Fuel Pumps (Fluvanna County Middle School)	

4.6 Media Contacts

4.6.1 Radio

WINA-AM.....	434-220-2300
WQMZ-FM.....	434-220-2300
WTJU-FM.....	434-924-0885
WUVA-FM.....	434-924-0885
WWWV-FM.....	434-220-2300
WNRN.....	434-971-4096
WVTF-NPR.....	434-293-2515

4.6.2 Television

WVTR-TV 6.....	804-254-3600
WRIC-TV 6.....	804-330-8000
WWBT-TV 12.....	804-230-1212
WCVE-TV 23.....	804-320-1301
WVIR-TV 29.....	434-220-2900
WRLH-TV 35.....	804-358-3535
WHTJ-TV 41.....	804-560-8120

4.6.3 Newspaper

The Central Virginian.....	540-967-0368
Charlottesville Observer.....	434-978-7200
The Fluvanna Review.....	434-591-1000
Richmond Times-Dispatch.....	800-468-3382
The Rural Virginian.....	434-978-7200

5. Mutual Aid

5.1 Virginia Water/Wastewater Assistance Response Network (VA WARN)

VA AWWA

Geneva Hudgins
P. O. Box 11992
Lynchburg, VA 24506-1992
434-386-3190 (Office)
Email: geneva.hudgins@vaawwa.org

5.2 Neighboring Waterworks

Fluvanna Women’s Correctional Center Operated by the Virginia Department of Corrections
Office 434-984-3700

Louisa County Water Authority
Office 540-967-1122
24-Hr 540-967-1122

6. Signature

Representative Name: _____

Signature: _____

Title: _____

Date: _____

7. Waterwork Notifications

7.1 Purpose

A purpose of this EMP is plan to communicate quickly with customers in the event that water service is interrupted, or quality is impaired by a power outage. The waterworks will make efforts to notify all persons served as required by the Waterworks Regulations.

If damage occurs that could allow microbial contaminants to enter the water supply, boiling water is the preferred method to make sure tap water is safe to drink. Customers will be warned to boil all of the tap water they use for drinking, beverage and food preparation, making ice, or brushing teeth. Customer will be warned if tap water should not be used.

7.2 Boiling Water

There are three main reasons for asking customers to boil their tap water in the immediate aftermath of a natural disaster:

1. **Power outages** During extended power outages your waterworks may be unable to produce water, leading to a loss of pressure throughout the system. In the hours before a hurricane strike, customers may have depleted stored water by filling bathtubs or bottles, further reducing overall system pressure. When pressure drops it is possible for microbes in the ground and soil to contaminate the water supply by seeping into pipes that are normally filled with water under pressure.
2. **Service line breaks** Service lines can be severed when trees are uprooted, or when heavy rainfall causes washouts around buried service lines. Line breaks can lead to sudden loss of pressure, backsiphonage, or direct introduction of microbial contaminants into the water distribution system.
3. **Flooding** Microbial contaminants can be introduced into the water supply if a wellhead, treatment unit, or storage tank becomes flooded. Wellhead contamination can occur if flood waters reach the well casing, even if the casing itself is not submerged.

Boiling tap water will reduce the possibility of getting sick from waterborne microbial pathogens. This EMP deals with power outages.

7.3 Boiling Water Notices

7.3.1 When to Send

Fluvanna County Zion Crossroads Community Waterworks (FCZCCW) will notify customers to boil or not to use their water if the waterworks has sustained damage that could let contaminants enter the water supply such as damage from an extended power outages leading to loss of system pressure, service line breaks, or flooding or as otherwise required by law or the Waterworks Regulations.

The Office of Drinking Water (“ODW”) Field Office will be consulted before alerting customers to boil water whenever practicable. If unable to consult with the ODW Field Office, then the waterworks will send the boil water notice or do not use notice, but will notify its ODW Field Office as soon as possible.

7.3.2 Contents

Boil water notices must conform to Public Notification Rule guidelines (see Waterworks Regulations).

The boil water notice will include at minimum:

- the name of the waterworks,
- the geographical or service area affected,
- a brief statement of the problem,
- the date of its occurrence,
- actions being taken by the waterworks to correct the problem,
- measures to be taken by consumers to protect their health,
- a statement indicating how and when the notice will be lifted, and

- a telephone number directing consumer questions to a waterworks representative.

The notice will include mandatory health effects language if there has been confirmed contamination with fecal coliform or E. coli bacteria or as otherwise required by law. Notices will include a statement asking customers to pass the information along to others in the community. The Customizable Boil Water Notice form in Appendix A is designed to meet all of these criteria. A one-size-fits-all notice may not meet the needs of an emergency and the waterworks may provide additional information in the notice.

During a power outage it may not be possible to customize or print copies of a boil water notice that meets all of the Public Notification requirements. The waterworks will keep a supply of Generic Boil Water Notice (Appendix C) and the Virginia Department of Health Boil Water Notices Brochure (Appendix D) on hand to quickly distribute to customers in the event of an emergency. A customized notice will then be prepared and distributed to customers once power has been restored.

7.4 Do Not Use Tap Water Notices

Do Not Use Tap Water Notice notices should conform to Public Notification Rule guidelines (see Waterworks Regulations). The notice must include any mandatory health effects language or other information required by law. Complete notices also include a statement asking customers to pass the information along to others in the community. The generic Do Not Use Tap Water Notice is in Appendix B. A one-size-fits-all notice may not meet the needs of an emergency and the waterworks may provide additional information in the notice.

7.5 Methods for Delivery of Notices to Customers

7.5.1 Methods

The FCZCCW will use the most direct method or combination of methods likely to reach every person served by your waterworks for communicating notices. If practicable the waterworks may hand-deliver a notice to each household. Notices will be hand delivered to each household as soon as it is safe to do so.

If it is not safe to hand deliver a written notice and telephone service is still available in the community, the notice information can be delivered by a telephone call to each household. FCZCCW will distribute a written notice as soon as it is safe to do so.

If the waterworks is too large to quickly and effectively reach with a written notice it may be necessary to deliver notices using local radio or television stations. Reverse 911 calling may also be available in your city or county. Local radio and television stations that serve the area may be used if written and telephone notices are unavailable or impractical, the radio or television message will include all of the points covered in a printed boil water notice or do not use notice.

7.5.2 Spanish Notices

Most of the notices in this EMP are available in Spanish at the ODW website at www.vdh.virginia.gov/ODW/EmergencyPlanningTools.htm.

7.6 Drinking Water Corrected Notices

When the ODW Field Office advises FCZCCW to lift or rescind the boil water or do not drink notice and after receiving concurrence from ODW, the waterworks will use the Drinking Water Problem Corrected form found in [Appendix E](#) to notify your customers that tests have shown that the water is safe to drink, and that the situation has been resolved. This notice will include a description of any follow-up actions that customers should follow, such as flushing plumbing fixtures prior to using the tap water without boiling, etc.

7.7 Appendices

[Appendix A](#) - Customizable Boil Water Notice – This form is available in two formats: as an electronic format for completion on a computer using Microsoft Word, and as the lined form for completion by hand provided here. The electronic version includes prompts for completing the required information. Electronic copies can be downloaded at the ODW website and saved to your computer. After customizing the notice, make copies to distribute to each household by hand delivery. This form is designed to meet all of the requirements of the Public Notification Rule. This form is also available in a Spanish language version.

[Appendix B](#) - Generic Do Not Use Notice – Used to quickly provide a warning to customers when it is not possible to make copies of a customized, detailed notice because of power outages. A supply of these forms will always be kept on hand. These forms are also available in a Spanish language version.

[Appendix C](#) - Generic Boil Water Notice– Used to quickly provide a warning to customers when it is not possible to make copies of a customized, detailed notice because of power outages. Print a supply of these forms will always be kept on hand. These forms are also available in a Spanish language version.

[Appendix D](#) - Virginia Department of Health Boil Water Notices Brochure – Provides supplemental information on the proper procedures for boiling tap water, written in a question-and-answer format. The document is designed for two-sided printing, to be folded as a brochure. A supply of these brochures will always be kept on hand. The brochure can be delivered to customers each year with annual Water Quality Reports (also known as Consumer Confidence Reports). Copies can be given to new customers or new billing units when water service begins. Copies of the brochure should also be distributed to customers along with a boil water notice during an emergency. This form is also available in a Spanish language version.

[Appendix E](#) - Drinking Water Problem Corrected Notice – This form - for customization on the computer or by hand - is used to inform customers that the situation has been resolved, and that it is no longer necessary to boil tap water. The form is also available in a Spanish language version. If there are special instructions that customers should follow, such as flushing lines before resuming normal water use, they should be described in the space provided on the form.

8. Glossary

Boil Water Notice — notice to all customers or consumers of affected waterworks not to drink water without first boiling water for at least 1 full minute. A notice could be issued due to positive sampling of bacteria or as a precautionary measure during the response phase of a natural disaster or a terrorist act.

Disinfection — a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

Emergency Management Plan (EMP) — for the purposes of this document, a plan of actions that outlines the steps that a waterworks takes to operate under an extended power outage condition.

Emergency Response Plan (ERP) — includes plans, procedures, and identification of equipment that can be implemented or utilized in the event of a terrorist or other intentional attack on the Community Water System. The ERP also must include actions, procedures, and identification of equipment which can obviate or significantly lessen the impact of terrorist attacks or other intentional actions on the public health and the safety and supply of drinking water provided to communities and individuals.

Extended Power Outage — an extended power outage is a loss of power that causes an interruption in a waterworks ability to provide water to its customers.

Hypochlorite — a solution of water and some form of chlorine, usually sodium hypochlorite.

Potable Water or Pure Water — water fit for human consumption that is (i) sanitary and normally free of minerals, organic substances, and toxic agents in excess of reasonable amounts and (ii) adequate in quantity and quality for the minimum health requirements of the persons served (see Article 2 (32.1-167 et seq.) of Chapter 6 of Title 32.1 of the Code of Virginia).

APPENDIX A: Boil Water Notice Template

Notice to Customers of _____ Waterworks

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

BOIL YOUR TAP WATER

Failure to follow this advisory could result in stomach or intestinal illness.

The _____ Water System is advising residents to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution. This precaution is necessary because _____

DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one (1) minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water...

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.
- Potable water is available at the following locations: _____

We will inform you when you no longer need to boil your water. To address this problem we are _____ . We anticipate resolving the problem within _____ .

For more information call:

Waterworks contact: _____
Name Address Phone

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

Date: _____

APPENDIX B: Do Not Use Notice Template

DO NOT USE TAP WATER

Failure to follow this advisory could result in illness.

DO NOT USE YOUR TAP WATER - USE ONLY BOTTLED WATER.

During the recent storm, unknown chemical substances may have contaminated our drinking water. Until we can investigate further and have the water tested, avoid all contact with the tap water. Only bottled water should be used for all drinking, beverage and food preparation (including baby formula and juice), making ice, brushing teeth, washing dishes or clothes, washing hands, and bathing until further notice.

DO NOT TRY TO TREAT THE WATER YOURSELF

Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting the water stand will not make the water safe.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly

BOIL YOUR TAP WATER

Failure to follow this advisory could result in stomach or intestinal illness.

DO NOT DRINK TAP WATER WITHOUT BOILING IT FIRST

Boiled or bottled water should be used for drinking, beverage and food preparation, and making ice **until further notice**. Boiling kills bacteria and other organisms in the water. Boiling is the preferred method to assure that the tap water is safe to drink. Bring all tap water to a rolling boil, **let it boil for one minute**, and let it cool before using, or use bottled water.

If you cannot boil your tap water....

- An alternative method of purification for residents that do not have gas or electricity available is to use liquid household bleach to disinfect water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. Public health officials recommend adding 8 drops of bleach (about ¼ teaspoon) to each gallon of water. The water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used by following the manufacturer's instructions.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly

BOIL WATER NOTICES



Answers to frequently asked questions



If you cannot boil your tap water because of a power outage....

In an emergency, boiling is the preferred method for making sure tap water is safe to drink. The following are acceptable alternatives if you cannot boil your tap water because of a power outage or loss of gas service:

- Use bottled water.
- Use liquid household bleach to disinfect tap water. The bleach product should be recently purchased, free of additives and scents, and should contain a hypochlorite solution of at least 5.25%. If the water is clear, add 8 drops of bleach (about ¼ teaspoon) to each gallon of water. Add twice the amount of bleach (16 drops, or ½ teaspoon) to each gallon if the water is cloudy. After adding bleach, the water should be stirred and allowed to stand for at least 30 minutes before use.
- Water purification tablets may also be used to disinfect tap water by following the manufacturer's instructions.

Prepared by VDH Office of Drinking Water
June 2008

For additional information write to:
VDH Office of Drinking Water
Director of Technical Services
109 Governor Street, 6th Floor
Richmond, Virginia 23219



Can I haul water from my neighbor's well or spring for drinking purposes?

No. You should only use water from an approved, tested source. Without routinely testing the water there is no way to know if the water is safe to drink.

Should I boil the tap water I give to my animals or pets?

You can boil the tap water you give to the animals in your care. Your veterinarian can tell you if this precaution is necessary.

What should I do if I become sick?

See your family physician or healthcare provider. Your doctor may call the Virginia Department of Health Office of Drinking Water at (804) 864 7500 for information about the boil water notice. Your doctor should notify the local health department if he or she suspects your illness was caused by microorganisms in the water.

Some people may be more vulnerable to contaminants. People with weakened immune systems, such as people with cancer undergoing chemotherapy, organ transplant patients, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be at greater risk from infections. These people should seek advice about drinking water from their health care providers. Guidelines on ways to reduce the risk of infection from microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

How will I know when it is safe to drink my tap water?

You will be notified when tests show that the tap water is safe to drink. You may be asked to run water to flush the pipes in your home before using your tap water or be given other special instructions. Until you are notified, continue to boil all tap water for one minute before use.

Why was I advised to boil my tap water?

You may be asked to boil your tap water during an emergency

- if tests show that harmful microorganisms could be present in the water,
- if the water pressure drops due to equipment failure or power outages,
- because of water main breaks or repairs,
- if the water source has been flooded, or
- during other situations that warrant special action to protect consumers' health.

How does boiling make my tap water safe?

Boiling the water kills microorganisms such as bacteria, viruses, or protozoans that can cause disease. Boiling makes the tap water microbiologically safe.

How long should I boil the water?

Bring tap water to a full rolling boil, let it boil for one minute, and let it cool before using.

Important Safety Tips



When boiling water on the stovetop, use manageable-sized containers and do not overfill them. Place the container on a rear burner if there are small children in the house. Let the water cool before transferring to another container.

Can I boil water in the microwave?

Tap water can be boiled in the microwave in a microwave-safe container, provided that the water reaches a full rolling boil for one minute. Place a microwave-safe utensil in the container to keep the water from superheating (heating above the boiling point without forming steam or bubbles).



Do I have to boil the tap water used to make beverages?

Yes. Boil all of the tap water you use for making coffee, tea, mixed drinks, Kool-Aid or any beverage made with water. In addition, all tap water used for making ice for consumption must be boiled.

Should I boil the tap water used to make baby formula?

Yes. Only use boiled tap water or bottled water for mixing formula for your baby.

Do I need to boil water before using it to wash vegetables that will be eaten raw?

Yes. Boil all of the tap water you use for washing raw vegetables.

Should I boil the tap water used in cooking?

All tap water used in cooking must first be boiled for one minute, unless the cooking process involves boiling for one minute or more.

Do I have to boil my dish-washing water?

No. Adding a tablespoon of household bleach such as Clorox to a sink full of tap water should be sufficient to treat the water used for washing dishes. Bleach should also be added to the water used for rinsing dishes. Allow dishes and utensils to air dry before reuse.

You may wash dishes in an electric dishwasher, but be sure to use it with its heating elements turned on. After washing in an electric dishwasher, dishes should be rinsed in water with a tablespoon of bleach added, and allowed to air dry before reuse.

Should I boil tap water for brushing my teeth?

Yes. Any tap water that might be swallowed should be boiled before use.

Is it necessary to boil water to be used for hand washing? Is any special soap necessary?

No. It is not necessary to boil the tap water used for washing hands, and no special soaps are necessary.

What about my bath water?

There is no need to boil water for bathing or showering. Adults, teens, and older children, can shower or bathe, though they should avoid getting water in the mouth or swallowing the water. Infants and toddlers should be sponge bathed. No special soaps are necessary.

Care should be taken to prevent water from getting into deep open or post-surgical wounds. Consult your physician or health care provider for wound care instructions.

Do I need to use boiled water for washing clothes or flushing the toilet?

No.



Do I still have to boil tap water if I have a water treatment device?

Yes. Devices designed to improve the taste, odor, or chemical quality of the water, such as activated carbon filters, will not remove harmful microorganisms from the tap water. Boil the tap water to make sure it is safe.

Can I use bottled water instead of boiling tap water?

Yes. Bottled water can be used for all of the situations where boiled tap water is recommended in this brochure. Be sure that the bottled water is from a reliable source.

APPENDIX E: Do Not Use Notice Template

DRINKING WATER PROBLEM CORRECTED

Customers of _____ were notified on _____ of a problem with our drinking water, and were advised to _____. We are pleased to report that the problem has been corrected and that it is no longer necessary to _____. We apologize for any inconvenience and thank you for your patience.

As always, you may contact _____ at _____ (phone) or _____ (address) with any comments or questions.

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

This notice is being sent to you by _____

Date _____