

2020 Emergency Preparedness Forum

Wednesday September 30, 2020

Learn how to prepare for interruptions in your water service

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Please mute your microphone! Feel free to type Questions in the Chat.

Service Interruptions

- Pipe break
- Planned outages for maintenance, repair or replacement
- Fire events
- Disasters weather wind, ice, drought, heat, extended power outage, contamination, earthquake



Prepared in Advance

System Designed for Resilience







- Regional interconnectivity
- Multi-process water breatment
- Backup systems
- Automated controls
- Multiple water sources
- Cooperative agreements to share resources in emergencies
- Emergency water distribution trailers
- Disaster drills, training and exercises
- Customer education and preparedness





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You are Key to Disaster Response

- TVWD and services may be disrupted or unusable due to a main break, planned outage, or a disaster.
- During a disaster other utilities, government entities, and supply chains may not be able to provide water right away.
- It is important to keep an emergency supply of water. Water may not be available or accessible for an extended amount of time.

-Assistance during an emergency or disaster may be delayed. (The responders oftentimes are being affected by the disaster themselves)

-(We may need to make sure firefighting, hospitals, and other emergency response have availability to water)



* There are many circumstances were these numbers could be drastically shortened.

S.I.T with Water

• Store-

- Have at least 1 gallon per day for each family member for 2 weeks stored within your home. 1 gallon is the minimum recommended for drinking, hygiene and cooking requirements.
- Isolate-
 - Identify the location of your main shutoff valve. You may need to isolate your home from the public water system to conserve your safe drinking water within your pipes and water heater tank.
- Treat-
 - Depending upon the disaster at hand, water may still be available but not safe to drink. Contaminated or suspect water can be treated during an emergency to make it safe for consumption. We will discuss this later.

Emergency Preparedness-Start with Water

- It is vital to have at least a 2-week supply of water in case of a disruption to the water system.
 - FEMA recommends at least 1 gallon a day for each person in your household.
 o 1 gallon is a minimum and may need to be increased dependent on your needs. Include pets.



Examples of Home Water Storage



55 Gallon Drum with pump, bung wrench, and water preserver.



Various sizes of commercially designed water containers-

-Distribute your supply in multiple areas of your residence if possible.



Water "bricks" stored in pantry near other emergency supplies.



Home Water Storage

Avoid: Glass: too heavy, may break

Containers that previously held milk or fruit juice: provide an environment for bacterial growth.







Do Not Drink

- The following types of water are unsafe to drink, even if you treat or filter it. Starred (*) items may be good sources for sanitation uses
- Water from your toilet bowl or tank, radiators, or water beds*
- Water from your pool, hot tub, or other outdoor water source*
- Flood water
- Water that has floating materials in it or that has an unusual odor or color
- Water that you know, or suspect might be contaminated with fuel, heavy metals, or toxic chemicals

Other Sources of water within your Home



 * Do not consume any beverages or canned food from containers that have been submerged in floodwaters.

Emergency Outdoor Water Sources

- Collected rainwater
- Streams, rivers & other moving bodies of water
- Ponds and lakes
- Natural springs





• <u>Water from these</u> <u>sources should be</u> <u>treated.</u>

Water Storage

– Think of other locations you may need to store water including:







Isolating Water in the Home

- After an emergency like an earthquake, first ensure you and your loved ones are safe.
- If it is safe to stay in your home, consider shutting off your main water supply to your home.
- Shutting off your water may save the water in your pipes and water heater from being contaminated.

Emergency Water Shutoff

Are you able to find the shut off valve? Knowing where it's located is important before you have a leak or an emergency. There should be a valve in or near your house.

Look for your shut off valve in the following places:

- In the crawl space or basement, where your water line enters the home.
- In the garage where your water line enters the wall or ceiling, possibly near a water heater or laundry hookup.
- Outside near the foundation, often protected by a concrete ring or clay pipe.



Water Heaters tanks can hold 20-80 gallons of water.

- Identify the location of your
 hot water heater. (Some homes
 do not have water heaters)
- If your home is tankless, adjust your emergency water planning.



Water heaters may be found in a garage, basement, or even an attic.

Treating Emergency Water

 If you are uncertain about the purity of any water source during or after and emergency, you can make it safe by treating before drinking, food preparation, or hygiene use.



Do not boil water that you suspect might be contaminated with cyanotoxins from harmful algae blooms, fuel, heavy metals, lead, or toxic chemicals. Boiling this water will actually concentrate the contaminants. Find another source of water.



Sodium hypochlorite (concentration 5.25% to 6%) should be the only active ingredient in the bleach. There should be no added soap or fragrance.

Losses potency over time-



Follow instructions provided on or with the packaging. Purification tablets also have expiration dates and will need to be replaced periodically.

You should not consume iodinated water if you are pregnant or have thyroid disease



Water filters can vary in size, capability, and portability. Water filters can be purchased commercially, online or homemade.

Follow instructions-

Recommend having varying sizes, and locations for filters













Cold Weather Preparedness

 As we get into colder weather it is important to prepare your water system.

Please check out our video "Game of Seasons" at tvwd.org



Next Steps

Plan and Practice your plans with loved ones, family, or neighbors-



If you want to get involved-

- CERT-Community Emergency Response Team
- Look into FEMA Independent Study Training
- Community Organizations



Now it's your turn! Any Questions?

How to contact us

Email: communications@tvwd.org

Phone: Call 503-848-3000

Website: https://www.tvwd.org/district/page/emergency-preparedness



Want to Learn more?

http://www.tvwd.org/emergency-preparedness