

# Snow, Ice, or Freezing Temperatures

## Private Wells and Natural Disasters

### *Prepare, Respond, And Recover*

#### **Safety Reminders**

Snow, ice, or freezing temperatures can lead to problems like frozen water pipes, broken pipes due to expanding ice, and power outages. To be prepared, understand your well type, know its location, and familiarize yourself with critical well components.

These tips can help you respond effectively and facilitate a smoother recovery.

- Get help from a licensed well contractor. Contact your local health department, department of environmental quality or natural resources, or a university extension service to obtain a list of contractors in your area.
- Have your drinking water tested at a certified water testing laboratory after any repairs are made to your well.
- Make sure you turn off power to the well before inspecting the area due to the danger of electrical shock due to dampness or wetness, or damage to your drinking water system.



#### **Ice or Freezing Temperatures**

Always keep your well maintained; a maintained private well is better able to withstand the stresses of snow, ice or freezing temperatures. If you live in an area that experiences these conditions, take these steps to protect your private well.

- Know and document all components of your private well. Take photos of the connections and system components. These photos will be helpful if components need to be replaced. Make sure to include:
  - Storage or pressure tanks
  - Pump
  - Treatment system (include any filters)

- Electrical components
- Store all well documents in an easily accessible location.
- Protect your well head by marking it with a flag or post to prevent it from being hit by vehicles or other machinery.
- Prevent freezing by considering the following:
  - Insulate above ground components (well house) and piping.
  - Wrap pipes in a well house or frost pit with heat tape or heat cables in a single layer.
  - Place a heating source such as a small heater or heat lamp in the frost pit or well house to prevent freezing pipes.
  - Cover the well pit with insulation or straw.

## Before Snow, Ice or Freezing Temperatures

### Essential Steps to Take

- Buy or store safe water, such as bottled water, to use for drinking, cooking, bathing, and flushing toilets for three days.
- Have contact information for a licensed well contractor, your local health department, university extension service, and water testing laboratory.
- Disconnect and store garden hoses.
- Close the shutoff valve and/or cover your outdoor faucets if applicable.

## During Snow, Ice or Freezing Temperatures

- Use a safe water source, such as bottled water, for drinking, cooking, and bathing if your pipes freeze or there is a power outage.
- If needed, utilize a generator to power your well pump during a power outage.
- Make sure your house is heated and someone runs warm water regularly if you are gone for more than a week. Open any cabinets with pipes to disperse the heat.
- Consider shutting off the home's water supply and opening the faucets to drain what remains if you are gone for several months.
- Contact a licensed well contractor for repairs if any components of your well freeze.

## After Snow, Ice or Freezing Temperatures

### Step 1: Test Your Well Water

You should test your well water for coliform bacteria, *E. coli* bacteria, and nitrate to make sure it is safe before use. Contact your local health department to ask about local contaminants of concern.

- Get a water sample kit. Recovery teams may be distributing water-sampling kits. If not, call your local health department, a certified water testing laboratory, or university extension service.



- Follow the instructions on the sampling kit to avoid accidental cross-contamination and inaccurate results. Return the sample to the lab as soon as possible following the directions provided for sample storage and transport.
- Consult with the manufacturer or a licensed water treatment installer if the filter or softener has been exposed to contaminated water.
- Drink, cook, and bathe with bottled water or a stored water source until the results from the lab confirm that water is safe to use, and all necessary repairs are completed.
- Retest the water to confirm the results are below [EPA's Maximum Contaminant Levels \(MCLs\)](#). Contact your local health department for the best timeframe to retest.

## Step 2: Disinfect Well

If your water is contaminated or repairs were performed, you may need to have the well professionally disinfected. Retest the water before use and be sure parameters are below [EPA's Maximum Contaminant Levels \(MCLs\)](#).

## Prepare for Flooding

If there is a lot of snow melt in the area, you may need to prepare your well for a flood. (See Flood Factsheet)

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Private Wells and Natural Disasters: Prepare, Respond, and Recover is a series of factsheets intended to be a tool for environmental public health professionals who specialize in private wells, and as a resource for private well owners, developed in collaboration with members from the NEHA's Private Water and Decentralized Wastewater Program Committee and the Private Water Network.

For additional tools and resources, please visit: <https://www.neha.org/water-quality>

## References

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