

GUIDANCE FOR SEPTIC SYSTEMS BEFORE, DURING, AND AFTER WINTER WEATHER





Guidance for Septic Systems Before, During, and After Winter Weather

Background

This resource provides guidance for septic system users before, during, and after winter weather. Understanding your septic system type, location, and components before winter weather occurs will make this guide more useful. Please visit neha.org to access educational resources for septic system users.

Safety Reminders

- Get help from a septic system service professional for steps with this symbol:  You can find septic system service professionals through local health departments, departments of environmental quality, departments of natural resources, or university extension services.
 - Make sure you turn off power to the septic system and all cords are unplugged before inspecting the area. There is danger of electrical shock and damage to your septic system.
 - Wear rubber gloves and eye protection when inspecting septic system components. Wash your hands thoroughly, throw away gloves, and wash any contaminated clothes when finished.
 - Steps with a  only apply to pressure distribution systems.
 - Get help from a septic system service professional if any of the steps feel unsafe in your situation or if your system loses power.
 - Be careful accessing your system. Freezing temperatures, ice, and heavy snowfall may be present.
 - Never enter the pump chamber or septic tank. Gases inside the pump chamber and septic tank are poisonous and the lack of oxygen can be fatal.
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Before the Winter

Always keep your septic system well maintained; a well-maintained septic system is better able to withstand the stresses of winter weather. If you live in an area that commonly experiences winter weather, take these steps to protect your septic system.

- **Know and document all components** of your septic system. Take photos of the connections and system components. These photos will be helpful if components are destroyed and you need to replace them or file insurance claims. Make sure your photos and/or documents include:

- Septic tank location
- Septic system records or drawings
- Electrical components

- **Check for and repair any leaking plumbing fixtures.** Small trickles of water can freeze within the pipe and eventually cause the pipe to freeze solid.

- **Let the grass in your lawn get longer** in the late summer/fall over the tank and soil treatment area to provide extra insulation.

- **Consider wrapping your pipes with heat tape** if you have high-efficiency appliances that generate small amounts of water.

- **Make sure the land around the manhole covers is sloped downwards** so that snow melt flows away from the system

- **Avoid compacting the soil around the system.** Compacted soil provides less insulation than uncompacted soil. Never allow vehicle traffic or livestock above the tanks or on the drain field.

🔧 **Check with a septic system service professional before doing any landscaping** to make sure that your system complies with freezing depths for the area.

🔧 **Consider adding more insulation to the system if your system is new, you have had issues with freezing in the past, or you have a mound system.** Options include installing insulated pipes, adding insulation to tanks or manhole covers, or placing a layer of mulch (8-12 inches) over the pipes, tank and drain field. This mulch could be hay, straw, or any other loose material. Contact a septic system service professional for more information.

Before the Winter

- 🔧 **Check for open, broken or uncapped risers, inspection pipes, or manhole covers** that may allow cold air in and cause freezing. Be careful around any openings to the system and contact a septic system service professional for any needed repairs.
 - 🔧 **Check for any water pooling near the drain field.** Effluent released from a failing system may freeze and prevent further effluent from entering the soil. Contact a septic system service professional for any needed repairs.
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During the Winter

- **If you will be gone for more than a week leave the heat on in your home** and consider having someone come by and run warm water regularly to prevent pipes from freezing.

- **Limit all traffic above and near the system** during freezing temperatures. Excessive foot traffic, pets, or other impacts can cause snow to compact and the system to freeze.

- **Avoid removing or compacting snow above the system.** Compacted snow provides less insulation than uncompacted snow and cold PVC pipes and plastic risers may crack or break.

- **If you feel the system starting to freeze use warm water and spread out your laundry and dishwasher schedule** to at least one warm load per day. Do not leave water running, as this will hydraulically overload the system.

🔧 **If you will be gone for several months, follow the steps listed above and check with a septic system service professional about having your septic tank pumped** to prevent the effluent from freezing. In certain areas pumping the tank may cause it to pop out of the ground.

🔧 **If your septic system freezes call a septic system service professional.** Do not add antifreeze, salt, or a septic system additive to the system. Do not run hot water continuously, start a fire over the system, or attempt to pump the sewage. Unless the cause of freezing is corrected the system will probably refreeze next winter.

During the Winter

- 🔧 **If you hear water constantly running into a pump tank or the pump turning on and off your system may be frozen.** Shut off your pump and call a septic system service professional.
 - 🔧 **If your septic system cannot be repaired, contact a septic system service professional about using the septic tank as a holding tank** until the system thaws naturally. If this complies with local code the tanks will need to be emptied on a regular basis. This can be costly. Reduce water use by limiting the number of toilet flushes, taking short showers, using the dishwasher at full capacity, and doing laundry at a laundromat.
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After the Winter

- 🔧 **Always contact a septic system service professional for an inspection after winter ends.** Whether or not the system is frozen, an annual spring inspection is always recommended. The ground may be saturated from snow melt and could cause the system to flood.
 - 🔧 **If you experienced issues with your septic system freezing contact a septic system service professional** about installing insulated pipes or adding insulation to manhole covers.
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Professional System Inspection

Consult with a septic system service professional to determine if an inspection is needed before using the septic system again. An inspection by a septic system service professional may include:

- Open all parts of the system (sewage tanks, drop boxes, anywhere there is access to system components) and assess whether ash or vegetative debris has entered the system. All sewage tanks should be pumped and cleaned out.
 - Check the drain field and the area over the septic tank for erosion damage. Repair with sod or seeding to provide good plant cover.
 - A month after the system is restarted, schedule a follow-up visit to check for proper operation.
 - Check the tanks for water tightness and structural defects such as cracking or breakage from freezing.
 - Make sure that inspection ports are free of blockage and damage. Replace and secure septic tank manhole covers as needed.
 - Check the drain field and the area over the septic tank for damage from fallen debris or winter weather. Repair with sod or seeding to provide good plant cover.
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OTHER SYSTEMS

If you have an advanced treatment unit or any other type of onsite wastewater treatment system not addressed above, contact a septic system service professional or your local health department.

Temporary Toilets

If your septic system appears to be damaged and cannot be used, one option is a temporary toilet. **Only use a temporary toilet if there are no functioning toilets available and the winter weather is expected to last several days.**

- Temporary toilets options include:

- **Check to see if you can stay somewhere else** that has working water and sewer.
- **Contract a PortaPotty** for temporary use.
- **Modify your own toilet:**
 - **Shut off the water valve** to the toilet. If you can't close it, try another option.
 - **Flush out any water still in the bowl** (the toilet shouldn't refill when the valve is closed).
 - **Line your toilet bowl** (under the seat) with a plastic kitchen garbage bag inside of another kitchen bag.
 - **Into the inner bag, put some kitty litter, dry peat moss, lime, or something similar** that will absorb liquid and may reduce odors.
 - **Avoid mixing urine and fecal material if possible.** This will limit odors and urine is generally much safer for disposal if not mixed with fecal material.
 - **After using the toilet, close the inner plastic bag** with a plastic tie or other method.
 - **Wash or sanitize your hands** after toilet use and waste handling. Keep a bucket of clean water, a dipper, and soap for handwashing nearby. Camp handwash stations may be a viable solution.
 - **Store full bags in a secure area** (consider a watertight bucket or trashcan) away from pets, wildlife, and curious kids.
 - **Dispose of the bags properly** when possible. In most jurisdictions throwing them in the garbage is allowed but it is best to check with local authorities.

- **Use a five-gallon bucket as a toilet.** You can add a toilet seat and set it up like a modified toilet (above).

- **If you must dig a hole for your waste, make sure it's at least 200 feet** (70 adult steps) from water bodies and water wells to minimize pollution. It must be at least six inches deep, so critters or kids won't dig it up. Fill it in after a single use, tamp the dirt down. This is a short-term option only and regulations may vary by jurisdiction.

SOURCES

<https://septic.umn.edu/septic-system-owners/maintenance/freezing-problems>

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www.neha.org