

WINTERIZING AND DE-WINTERIZING YOUR WELL

Most vacation homes and cabins are considered seasonal homes. Some seasonal homes have private water wells that service the home. These types of homes are not designed to be used during the winter because of plumbing systems and structures that are not adequately insulated to withstand extreme cold. When preparing to close your vacation home for the season, leaving the home vacant and unheated, you must winterize the plumbing to protect it from bursting in freezing temperatures. This process includes going through the steps to winterize your water well pump.

Winterizing Your Home

WSC recommends that you contact a licensed plumber to winterize your home. If you must winterize on your own there are some important steps you must take to drain your system efficiently. Read through the entire list before getting started.

- Step 1** Shut off the house water supply by closing the main shut off valve.
- Step 2** Turn off the gas or electricity to the boiler and the water heater.
- Step 3** Siphon the water out of the tub of the clothes washer. If the drain hose can be lowered to a floor drain, it will usually drain on its own.
- Step 4** If you have hot water heat, open the drain faucet on the boiler and let the water flow into the floor drain. Next, remove an air vent from a radiator on the top floor so that air will replace the water as it drains into the boiler.
- Step 5** Working floor by floor, starting at the top, open all hot and cold water faucets – including all tubs, showers and outdoor faucets – and flush all toilets.
- Step 6** Open the drain faucets on the water heater and the water treatment equipment if you have any. **BE CAREFUL!** Even though you have turned the electricity or gas off, the tank still has hot water in it.
- Step 7** Open the drain faucet (if you have one) on the main supply line to release any water that may remain in the pipes.

Quick Tips

Before you shut off the water supply, save a few gallons of water for drinking or cooking and draw enough extra water to prepare an antifreeze mix that you will need to protect the traps.

Most water heater manufacturers recommend that you drain the sediments that build up in the tank at least once a year. This is a great time to do it. Refer to your water heater manual or contact the manufacturer for recommendations if you are unsure.

- Step 8** Walk through the house to make sure every place where water can collect is drained. Attach an air compressor to each faucet and give a low pressure blast of air to blow out any remaining water.
- Step 9** The water still remaining in the fixture and toilet traps as well as the main house trap, if you have one, must be replaced with an antifreeze solution to keep the traps from bursting. **You must use the non-toxic propylene glycol antifreeze sold for recreational vehicles.** Non-toxic propylene glycol is considered safe for water wells and septic systems. *Note: The ethylene glycol antifreeze used in automobiles is toxic (the manufacturer recommends that it not be brought in the house) and alcohol-based products evaporate too quickly to be effective.*
- Step 10** Mix the antifreeze with water, as directed on the label, in the same proportions you would use to protect a vehicle in your climate. How much antifreeze you need will depend on the proportions recommended by the manufacturer and the number of traps to be winterized.
- Step 11** Prepare the lavatory, sink and tub traps first. Pour at least a quart of the antifreeze solution into each trap. Pour the solution in slowly so that it will push the existing water ahead of it into the drainpipes.
- Step 12** Soak up any water remaining in the bottom of toilet bowls with rags or newspapers. Pour at least a gallon of antifreeze mixture into each toilet tank, then flush the tank to push water from the flushing channels of the toilet bowl. The antifreeze will collect in the toilet trap.
- Step 13** To finish winterizing, pour about a quart of antifreeze into the house main trap.

Winterizing a Water Well Pump

When your home is supplied by a private well system, there are additional steps that need to be taken in order to winterize properly. WSC recommends that you contact your licensed well contractor or confirm the licensed plumber winterizing your home is also certified in water wells to winterize your well components. If you must winterize on your own, here are some important things you need to know. Read through the entire list before getting started.

- Step 1** Turn off the water supply to the entire house. Locate the well pump breaker inside the breaker panel and turn it to the OFF position. **Do not turn off the main breaker;** leave this switch in the ON position. (This way if someone accidentally turns on the main, they will not trigger the pump.)
- Step 2** Drain the water from the water lines: turn on all the taps in the house and let them run until water no longer flows from them.
- Step 3** Unplug or disconnect the wiring that provides power to your pump. Even though you have turned off the power supply switch to the pump this is an extra safety measure to prevent someone from trying to use the pump after it is winterized. If your well pump is in a deep well (one you cannot access), no further action is required to winterize the pump; the depth of the well will prevent the pump from freezing. If you have a shallow well with a jet pump, move on to Step 4 to complete the process.

- Step 4** Use a flat head screwdriver to loosen the hose clamps attaching the water feed lines and pump lines to the water well pump. Place a bucket under the connections so that any water that spills when you disconnect the hoses will not wind up on the floor.

Refer to the manufacturer's instructions for draining any water that is still in the pump. Tape any cords, wires, and the ends of both water feed lines to the body of the pump. This will help you remember what goes where when you return to open your seasonal home.

Winterizing Your Irrigation System

If your home has an irrigation system, additional steps will need to be completed. WSC recommends that you contact your irrigation or landscaping company for assistance. If you must winterize on your own, here are some important things you need to know. Read through the entire list before getting started.

- Step 1** Turn off the water to the irrigation system at the main valve.
- Step 2** Set the automatic irrigation controller to the "rain" setting.
- Step 3** Turn on each of the valves to release pressure in the pipes.
- Step 4** Drain all the water out of any irrigation components that might freeze.

Quick Tip

Tape signs over all the taps, toilets, and switches for plumbing items, including the well pump. This will help prevent accidental mishaps.

Underground irrigation systems need to be blown out with compressed air. This usually requires that the control unit has power to energize the spray heads while you have an air compressor connected to the main water supply for the valves. There is usually an isolation valve and hose drain outside near the solenoid valve location which is where the air hose gets connected. The zones are cycled to ensure all lines are empty. No antifreeze is necessary.

De-winterizing Your Home

This section provides staged steps for turning the water supply back ON when it has been winterized. WSC recommends that you contact a licensed plumber to de-winterize your home. If you must de-winterize on your own, here are some important things you need to know. Read through the entire list before getting started. This staged approach minimizes the chances of extensive water damage even if a leak has occurred while the home was unattended. **DO NOT turn on the water supply before any known cut or broken pipes have been repaired.**

- Step 1** Visually inspect all supply piping, drains, and plumbing traps.
- Step 2** Repair any pipes, drains, and replace any open or damaged plumbing traps including those that are corroded or in poor condition. This repair will limit troublesome drain leaks later. *Note: If antifreeze was used in the drains, remove this liquid before replacing damaged drains.*
- Step 3** Close all faucets indoors and outside including water supply shutoff valves and supply piping drains. Closing every faucet ensures that you can open and check each fixture individually, so you are not flooded with leaks in one area while in a different part of the home.
- Step 4** Turn ON the water supply at the main valve.

De-winterizing Your Water Well Pump

When your home is supplied by a private well system, there are additional steps that need to be taken in order to de-winterize your well components. WSC recommends that you contact a licensed well contractor or confirm the licensed plumber de-winterizing your home is also certified in water wells to de-winterize your well components. If you must de-winterize on your own, here are some important things you need to know. Read through the entire list before getting started. **If you have an above ground pump, be sure to have clean water on hand in case there is a need to re-prime the pump.**

- Step 1** Turn off the water shutoff valve at the water tank. This is the valve that lets water out of the water tank to supply the home piping. *Note: Most water pressure tanks will have only a tank outlet valve between the tank and the home water supply piping.*
- Step 2** Make sure any valve between the water pump and pressure tank inlet is in the open position. *Note: If this valve is shut and the pump turns on, depending on where the pump pressure control switch is installed, the pump may short cycle on and off rapidly or could cause damage or burst a part or pipe which is very dangerous.*
- Step 3** If you have a submersible well pump, it does not need to be primed – move to Step 4 to continue. If your water pump is above ground, the pump may be dry and may need to be primed through a priming inlet port on the pump itself. This is where the clean water comes in handy! If you do not have water, do not operate the pump. A well pump should never run dry or there is risk that you will damage the water pump's impeller, bearings, or other internal parts.

- Step 4** Turn on the water pump. The pump should turn on, pressurize the water tank, and turn off. If the pump turns on but does not turn off check that the shutoff valve is closed. If you are experiencing any other problems (e.g., water pump not turning on/off, not reaching normal pressure settings), contact your licensed well contractor immediately.
- Step 5** Check for leaks at the water main valve, water pump, tank, and supply piping nearby. If any leaks are detected turn off the water immediately and make any repairs necessary or contact a professional for assistance.
- Step 6** Open water shutoff valves to each area of the home, one by one. Check for leaks in each area before continuing to the next area.
- Step 7** Turn on and test individual plumbing fixtures briefly to check for leaks, only using about a quart of water each time. Test both cold and hot water taps starting with the cold water first. Also check drains for leaks. *Note: If antifreeze was added to the floor drains, you should pour a gallon or so of water down each drain to remove the antifreeze. If you are confident there are no leaks at the fixtures and drains continue with a full water system test, allowing normal use at each tap. Note: It is always a good idea to recheck all areas after normal use to detect any slow leaks.*

De-winterizing Your Irrigation System

If your home has an irrigation system, additional steps will need to be completed to de-winterize the system. WSC recommends that you contact your irrigation or landscaping company for assistance. If you must de-winterize on your own, here are some important things you need to know. [Read through the entire list before getting started.](#)

- Step 1** Turn on the water to the irrigation system at the main valve. *Note: Sometimes the valve may leak a little when first turned on. However, it should only leak for a short time. Keep an eye on it and make sure it is not continually running.*
- Step 2** For this step, it is a good idea to remove the sprinkler head at the end of each line before turning on the sprinkler valves to flush out the line of any debris, and to protect against water hammer in case you turn on the valve too quickly. Turn on the sprinkler valves one by one to check for any leaks. *Note: If the line is broken underground, it may take some time to bubble up.*
- Step 3** Dig up and repair any leaks and replace sprinkler heads that are broken or contact a local landscaping or irrigation company for assistance.
- Step 4** Set the timer! At first, set watering times for a time when you can keep an eye on them to make sure everything is working properly.

For More Information on Winterizing and De-winterizing

For more information on winterizing and de-winterizing, contact your licensed well contractor, plumber, or the [wellcare®](https://www.wellcare.org) Hotline at 888-395-1033 or info@wellcarehotline.org.



Information to help maintain and protect your water well system:

[wellcare®](https://www.wellcare.org) is a program of the [Water Systems Council \(WSC\)](https://www.watersystemscouncil.org). WSC is the only national organization solely focused on protecting the health and water supply of an estimated 23 million households nationwide who depend on private wells (according to the U.S. EPA).

This publication is one of more than 100 [wellcare®](https://www.wellcare.org) information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the [wellcare®](https://www.wellcare.org) Hotline at 1-888-395-1033 or visit www.wellcarehotline.org to fill out a contact form or chat with us live!

JOIN THE WELLCARE® WELL OWNERS NETWORK!

By joining the FREE [wellcare®](https://www.wellcare.org) Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit www.wellcarehotline.org to join!