



How to Winterize a Backflow Assembly

Stop-and-Waste Valve Winterizing Draining Procedure

One of the most important things to consider when winterizing a landscape irrigation system is protecting the integrity of the backflow assembly; provisions are required when draining the landscape plumbing. The following intended directions assist with guidance when winterizing an outdoor backflow assembly on an irrigation system. **The directions in bold lettering are Chelan County PUD, City of Wenatchee, and East Wenatchee Water District requirements.**

Prior to beginning the winterization process, the first thing to do is determine what type of isolation valve was installed (Gate valve/ball valve or a stop-and-waste ball valve) for the irrigation sprinkler system.

The best way to determine the type of isolation valve is to turn the valve on and then off. While completing this step, observe the valve to see if water drains out of the bottom. If the water does drain out of the bottom of the valve, the valve installed is a Stop-and-Waste Valve. (*See the following section for: “Stop-and-Waste Valve Winterizing Draining Procedure”*).

If the water does not drain out of the bottom of the isolation valve, the valve installed is either a gate valve or ball valve. Due to personal preference by the irrigation installer, the installer may have chosen to install a gate valve or ball valve versus a stop-and-waste ball valve. (*See the page with the section of: “Gate or Ball Valve Winterizing Draining Procedure”*).

By determining the type of isolation valve installed, you may now begin the process of winterizing the backflow assembly and irrigation sprinkler system.

Stop-and-Waste Valve

The stop-and-waste valve located below ground level can become a submerged inlet. A submerged inlet has the potential of becoming a cross connection on the domestic water service line. **Precautions should be taken when a stop-and-waste valve is installed by making sure poor soil drainage conditions does not exist. A minimum of 1 cubic foot (2 - 5 gallon buckets) of cleaned drain rock should be installed below the stop-and-waste drain hole with at least a 6” air separation from the bottom of the stop-and-waste valve to the top of the drain rock. Landscape fabric or newspaper should be installed as a barrier on top of the drain rock to prevent dirt from filling in the voids around the drain rock.**

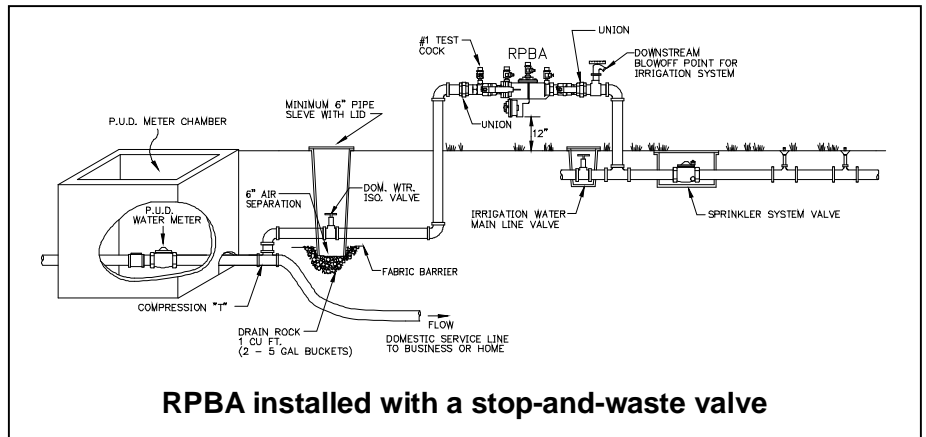
- The purpose of a stop-and-waste ball valve is to isolate the domestic irrigation line and allow the water to drain out of the stop-and-waste hole from the isolation valve to the piping prior to backflow assembly. The removal of the water will help prevent the piping and some parts of the backflow assembly from freezing and breaking.

Stop-and-Waste Valve Winterizing Draining Procedure

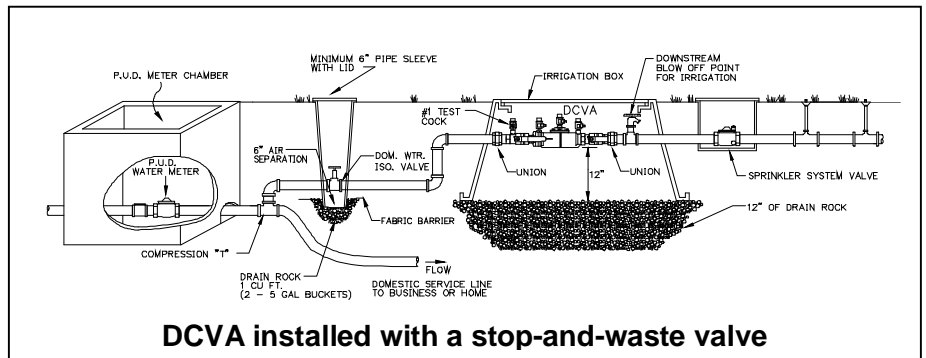
1. Turn the stop-and-waste curb-stop isolation valve to the off position.

2. Open the following:

- Open inlet/outlet shutoff valves on the backflow assembly (DCVA or RPBA).
- Open the No. 1, 2, 3, and 4 test cocks on the backflow assembly (DCVA or RPBA).
- Open the down stream hose bib or drain valve.

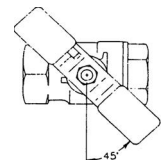


3. A very low volume of air is needed to help remove water from between the stop-and-waste valve and the backflow assembly. Introduce a very low volume of air into the number 1 test cock of the backflow assembly; water will exhaust out of stop-and-waste drain hole, the number 2, 3 and 4 test cocks of the backflow assembly.



- **Never blow high pressure volumes of compressed air through the inlet side of backflow assembly. Doing so can result in the potential contamination of the domestic water line and could affect the integrity of the backflow assembly.**
4. To drain additional water from the backflow prevention assembly, it may be necessary to loosen the covers on the check and relief valves so entrapped water can drain from the valve cavities. Be sure to re-tighten the covers before placing the assembly back into service.
5. **The blow-off port (location) to winterizing the landscape sprinkler system with compressed air shall be located directly after the backflow assembly. The #2 shut off valve on backflow assembly must be closed before blowing out the sprinkler system.**
- **Never blow high pressure volumes of compressed air through the inlet side of backflow assembly, especially when winterizing the landscape sprinkler system. Doing so can result in the potential contamination of the domestic water line and could affect the integrity of the backflow assembly.**

6. Upon completion of winterizing the backflow assembly and irrigation system, make sure that the main isolation shutoff valve remains in the closed position to prevent accidental refilling of the backflow assembly and landscape sprinkler system. **Be sure to open the number 1 2 shut off ball valves on the backflow assembly in the half-open position when completed. This will help protect the backflow assembly from possible freeze damage.**



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