

**WINTERIZING**

**A REDUCED PRESSURE ZONE (RPZ)**

**BACKFLOW**

**PREVENTER**

**bwa**

To properly winterize your backflow preventer you must have an isolation valve. For new irrigation systems the Texas Commission on Environmental Quality (TCEQ) Code states, “All new irrigation systems must include an isolation valve between the water meter and the backflow prevention device”, Rule 344.62. If you have an older system and don’t have an isolation valve, leave the backflow device on, and properly insulate it for a freeze. Visit our website for a list of irrigation companies for quotes if you wish to have an isolation valve installed. Environmental Services would also be glad to help you with the winterizing at 817-443-3116.

# 1

## Shut off the isolation valve.

This valve is usually found in the ground inside a round green colored valve box, either close to the backflow assembly or the water meter. The isolation valve needs to be “freeze proof” — either below the frost line, or wrapped with insulation.



If you have an automatic controller,

**turn it to the “off”  
or “rain” mode  
position,**

shutting off signals to the valves so they don't come on. The controller will continue to keep time, and your programming won't be lost. It's a wise precaution to shut off the power to the controller if a pump is wired to it. The pump could get damaged if, by a remote chance, the controller started it when the system was shut off. When you start up the system again, you'll have to reprogram the time, and possibly your settings. Mechanical controllers use more electricity than the automatic ones, so turn off their power to save electricity. You have no settings to lose in this case.



# 3

**If dust caps are present, remove them from all four test cocks.**

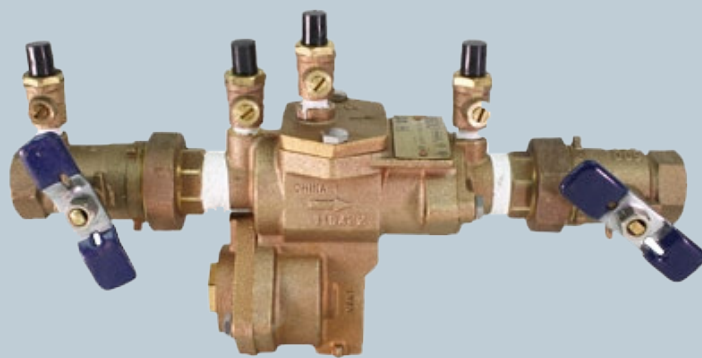


# 4

Take a small flat-head screwdriver and

**turn the screw in the center of each test cock to a 45 degree angle,**

opening up the test cock. Water may shoot out with some pressure, and drip for a short time. Leave the screws at 45 degrees, which is the halfway off position. Any water left in the device should evaporate, so there isn't any left inside to freeze and cause damage.



**5**  
**Next, turn shutoff #1 and shutoff #2 handles to a 45 degree angle or the halfway off position.**

This prevents water from being trapped in the shutoffs and causing freezing damage to them (never leave the shutoff handles in the fully open or closed position when freeze protecting your assembly).

# 6

**Loosen bolts on the relief valve cover until the water drains.**





# 7

## **If you wish to run your system once the freeze is over,**

remove the insulation bag, and open the isolation valve. Water will shoot out of the device test ports, allowing any air or debris to escape. Next, close the test cocks with a screwdriver (screw slots vertical), and if present, gently place the dust caps back on the test cocks. Be careful not to over tighten. This will stop water spraying out of the backflow preventer. Turn the #1 and #2 shutoff valve handles to the fully open position. Tighten the bolts on the relief cover. Set your controller.

# WINTERIZING A DOUBLE CHECK BACKFLOW PREVENTER

In central Texas most double check backflow preventers are installed underground, and are therefore insulated from freeze damage. For winterization of above ground double check devices, follow the RPZ steps (except for the relief cover — the double check backflow doesn't have a relief valve).

# 8

## Insulate the RPZ

by wrapping the assembly in foam pipe wrap, followed by a heavy rubber tape to protect the insulation. Then cover the backflow assembly with an insulation bag and enclosure (i.e. insulated rock).

You can keep the insulation on all winter (except for the insulation bag when running the system).

If you plan to wrap and tape the assembly, be sure to leave or cut a hole at the bottom of the relief valve to allow the water discharge to escape. If this is not done, the wrap can become a freeze blanket and cause damage to the assembly.

