

## Water Main Operation

### **Turning On the Water.**

There are three reasons for having the water turned off. The first is when the water is turned off for winterizing or for an extended period (longer than a month). The second is when there is plumbing maintenance or repair. The third is when the water is shut off between visits during seasons that don't have a freeze risk.

**When turning the water ON at the end of the freeze risk period (typically from mid November to late March), there are several steps.**

Inspect the plumbing for obvious breaks or damage

- Under the Kitchen Sink
- Kitchen Sink faucet and sprayer
- Bathroom sink faucet
- Under the bathroom sink
- Shower valves
- Toilet fill
- Release valves in bathroom between sink and under stair area
- Plumbing in the water heater shed.

Close the following valves:

- Main drain located in the underground access near the water heater shed. This valve is the one furthest away from the deck (or North most valve). The valve may be under water and hard to see. It is advisable to bail the water out of the access to allow visual verification, and also detecting water leakage. To close the valve, turn the handle 90 degrees clockwise (left), so the valve handle is perpendicular to the piping.



- Water heater drain at the bottom of the water heater. Use a large flat blade screwdriver to screw the valve shut in the clockwise direction



- Access/Relief valves in water heater shed. Turn these off by turning the handles in the clockwise direction.



- Relief valves in bathroom between sink and under stair area.



- Bathroom sink faucet
- Shower valves
- Kitchen sink valves

Turn on the main cutoff located in the underground access near the water heater shed (see picture 2). This valve is the one that is closest to the deck (southern most). The valve will need to be turned 90 degrees counter clockwise, so the valve handle is parallel with the piping. The valve is fairly tight, but will turn. Immediately after opening the valve check for leaks and water flow out of all the valves and locations listed in step 1. Open the cold water valve for the kitchen sink, bathroom sink and shower and

wait for the water to flow smoothly. Shut off the cold water valves and open the hot water valves and wait for the water to flow smoothly. The hot water may take some time because the hot water tank will need to fill. Flush the toilet and allow the tank to refill.

Immediately after shutting off the faucets and shower, inspect for leaks, paying special attention to all valves in the house and the water shed. Turn on the electricity to the water heat by moving the level on the power disconnect in the water shed to the up position.



Allow the plumbing to settle over the next hour, monitoring for leaks and breaks. If a leak occurs, shut off the main valve and fix the leak.

**Turning on the water from a short term shut down should be easier.** Basically, all of the valves in the house should already be shut off, and the relief valves should also already be closed. The internal pipes should already be full, and the water tank should be full. Turn on the main cut off valve outside of the watershed by turning the valve closest to the deck a quarter turn counter-clockwise so the valve handle is parallel to the piping. Verify that there are no leaks, and that the water flows properly. Turn on the water heater.

#### **Turning off the water temporarily.**

Turn off the electricity to the water heater by moving the handle disconnect in the watershed to the down position. Turn off the main cut off valve outside of the watershed by turning the valve closest to the deck a quarter turn clockwise so the valve handle is perpendicular to the piping.

#### **Turning off the water for extended periods and winterizing**

Turn off the electricity to the water heater by moving the handle disconnect in the watershed to the down position. Turn off the main cut off valve outside of the watershed by turning the valve closest to the deck a quarter turn clockwise so the valve handle is perpendicular to the piping.

Open the faucet valves in the kitchen and bathroom, and the shower. Attach a short hose to the cold water access in the water heater shed and open the blue handled valve. Allow the water to drain from the cold water pipe. For about 5 minutes

Open the main cut off valve next to the main cut off in the ground access outside of the watershed by turning the valve handle a quarter turn counter-clockwise (left) so the handle is parallel to the piping. **MAKE SURE THE MAIN CUTOFF IS OFF.** You should notice water coming out of the drain valve for about 5-10 minutes and then stopping. The water should not be draining forcefully for more than a couple of minutes.

Disconnect the hose from the cold water access in the water heater shed. Connect the hose to the drain valve on the bottom of the water heater. Open the water heater drain valve. Be careful as the water may still be hot. Open the orange handled hot water valve in the water shed. Let the water fully drain from the water heater. You may have to jiggle the hot water pipe (attached to the orange handled valve) GENTLY to allow air into the tank to accelerate the tank drainage. Once the water is drained, remove the hose. This may take over an hour. The hose may clog up from lime deposits coming from the heater tank, and may need to be cleared occasionally to allow the drain to flow again.



Open the relief valves in between the bathroom sink and the area under the stairs. Clean up any spillage on the floor. Wait 5 minutes.

Check the main drain output to see if the drain flow has stopped. If it has not stopped, **MAKE SURE THE MAIN CUT OFF IS CLOSED.** Once the flow has stopped turn off the drain valve.

Winterize the drains. Flush the toilet and make sure the tank is not filling. Use RV Antifreeze (Pink) to winterize the drains and toilet. This is an organic compatible antifreeze that does not contain glycol, and is made with alcohol. Put a half a gallon into the toilet tank. Fill the toilet bowl with about a half a gallon. Pour about  $\frac{1}{4}$  to  $\frac{1}{2}$  gallon into the kitchen sink, bathroom sink and the shower drain. If you need

to use the toilet or sinks in the winter, remember to add more antifreeze to the drains and bowl. You can flush the toilet by dumping a bucket of water (from the rain barrels or the blue water tanks) into the bowl, and following up with the antifreeze.

