

Utility Shutoff

Three residential utilities have a potential for causing injury or damage:

- **Electricity**
- **Natural Gas**
- **Water**

In an emergency or urgent situation involving one of these utilities, ***it is essential that residents know how to shut them off.*** All adults in the household should know how to isolate these utilities. No special skill is required, and all can be managed with common hand tools, if tools are required at all.

The US Federal Emergency Management Agency (FEMA) advises that residents may be instructed to shut off utilities in the event of a disaster. The intent is to minimize and contain hazards and damage in a catastrophic situation. The FEMA utility shutoff website link is:

<http://www.fema.gov/plan/prepare/utilityplan.shtm>

* Cable TV will, however, rot your brain and drain your bank account. By this standard, it, along with satellite TV, might be considered hazardous utilities. The easiest way to shut off this hazard is to cancel your paid TV service.



In addition to emergency situations, these supplies may need to be shut off for repair or testing of water, electrical or gas systems inside the home. In either event, the shutoff method is the same, and knowledge of these basic operations is essential for all residents.

These three are not the only common residential utilities, but telephone and cable TV service represent no realistic hazards to life or property*. Phone and cable service can be disconnected easily but are not covered here.

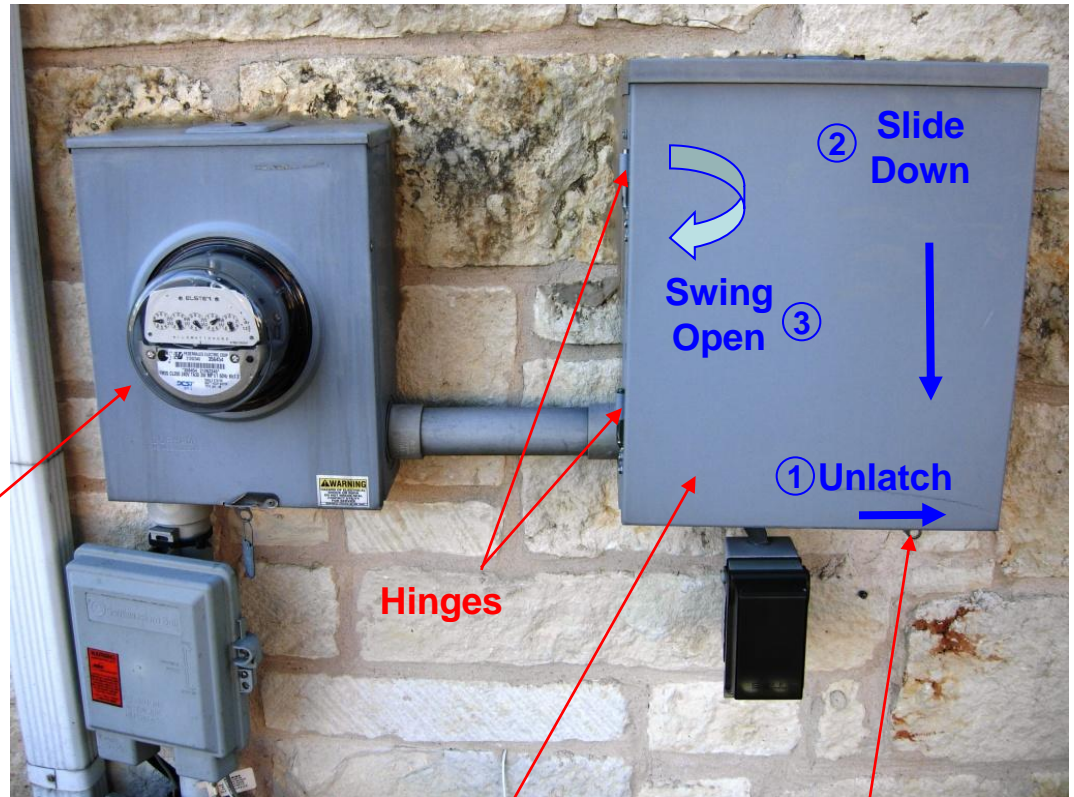
The remaining utility, waste water, has some potential for damage, but is not a supply connection. Flowing away from the structure, it is permanently piped to the utility sewer or septic tank and cannot be disconnected. For issues involving the sewer line, refer to the relevant sections in the HandyHomeowner topic index.

Utility Shutoff

Electricity

Electrical shutoffs are almost always in a box adjacent to the power meter. The electric utility meter is typically on one side of the house as shown.

There is usually a metal latch that moves to release the cover. Rarely opened and exposed to rain, the cover might be a bit stubborn to unlatch or move, so it may take a bit of effort to open. Once the cover is open the circuit breaker panel is accessible.



**Power
Meter**

Hinges

**Main Power
Distribution
Box**

**Padlockable
Latch**

One common power box shown for example. Enclosure type may vary. Many boxes hinge at top after unlatching cover. Yours may be very different, so learn how to open your box.

Utility Shutoff

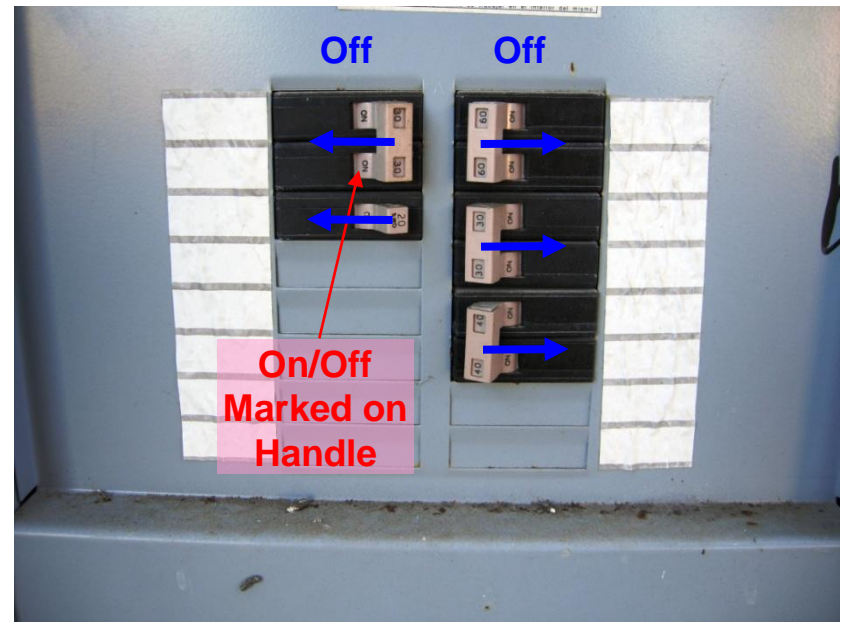
Electricity

Inside the box there may be a large main circuit breaker marked 100 Amperes or greater; moving the handle to the OFF position will shut off all power to the house.



Panel With Main CB

If there are six or fewer circuit breaker handles in this outdoor box, there may not be a main breaker, so shutting off power to the house requires all handles to be flipped OFF.

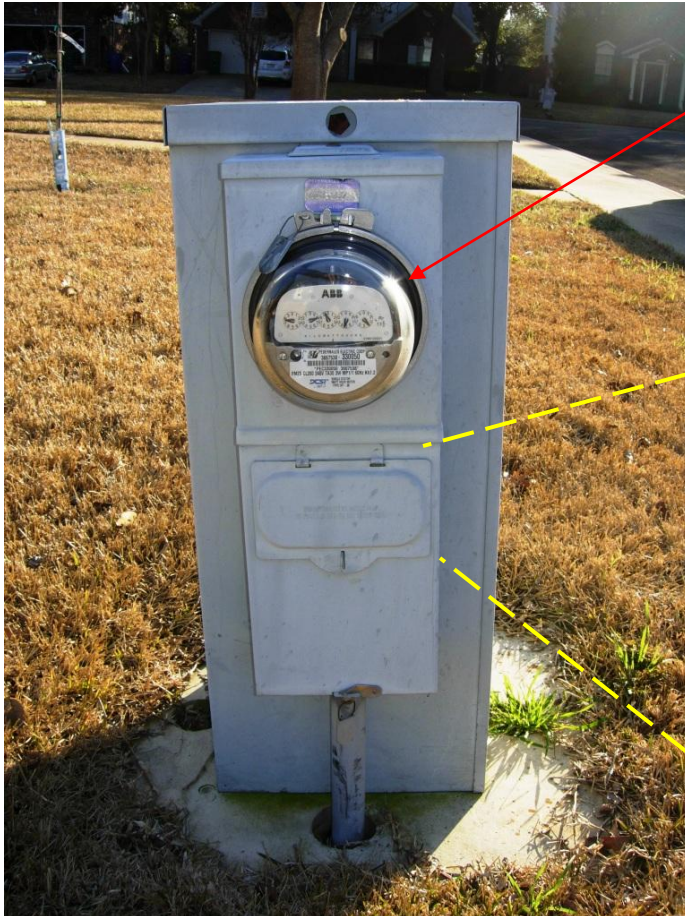


Panel Without Main CB

Utility Shutoff

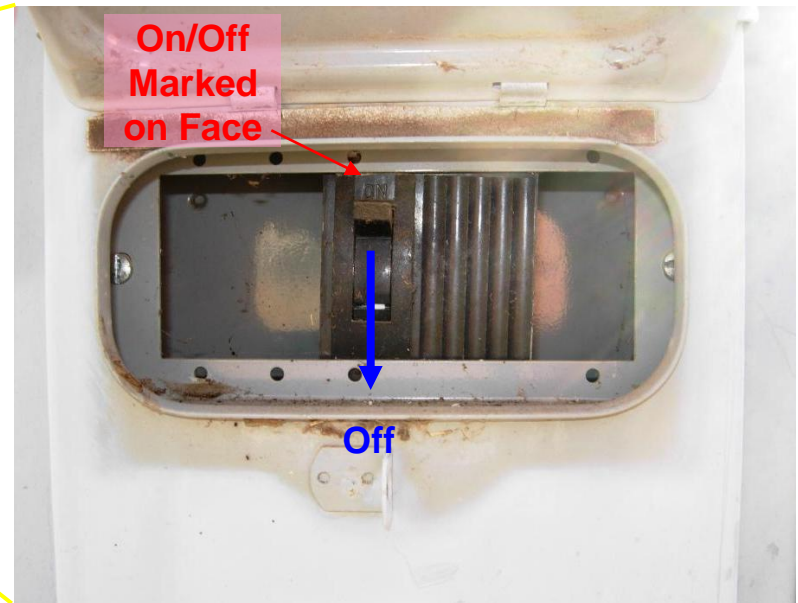
Electricity

Some neighborhoods have a power meter pedestal in the front yard near the street as shown.



**Power
Meter**

In this case, the main circuit breaker is located behind the hinged cover below the meter. Swing the cover up to access the breaker and move the handle down to disconnect power.



**On/Off
Marked
on Face**

Off

Utility Shutoff

Natural Gas

The natural gas shutoff valve is likely located on the pipe coming up from the ground to the meter before the pressure regulator.

Shut off gas only when necessary (gas leak or piping work). If gas is shut off it will be necessary to relight any pilot lights when the supply is restored. There should be gas valves for individual appliances inside the house, so it is unusual to shut off the gas main for appliance service.



If you smell a strong odor of natural gas inside the home, the most important thing is to get everybody out quickly.

Do not operate any electrical devices (lights, garage door, telephone) and leave the door open after exiting.

Once safely out, shut off the gas* if you are able, call 911 and alert the neighbors.

** This is controversial. Some suppliers recommend shutting off the gas in event of a leak, others say that you should wait for their people to investigate and shut off as needed. Use your own judgment here.*

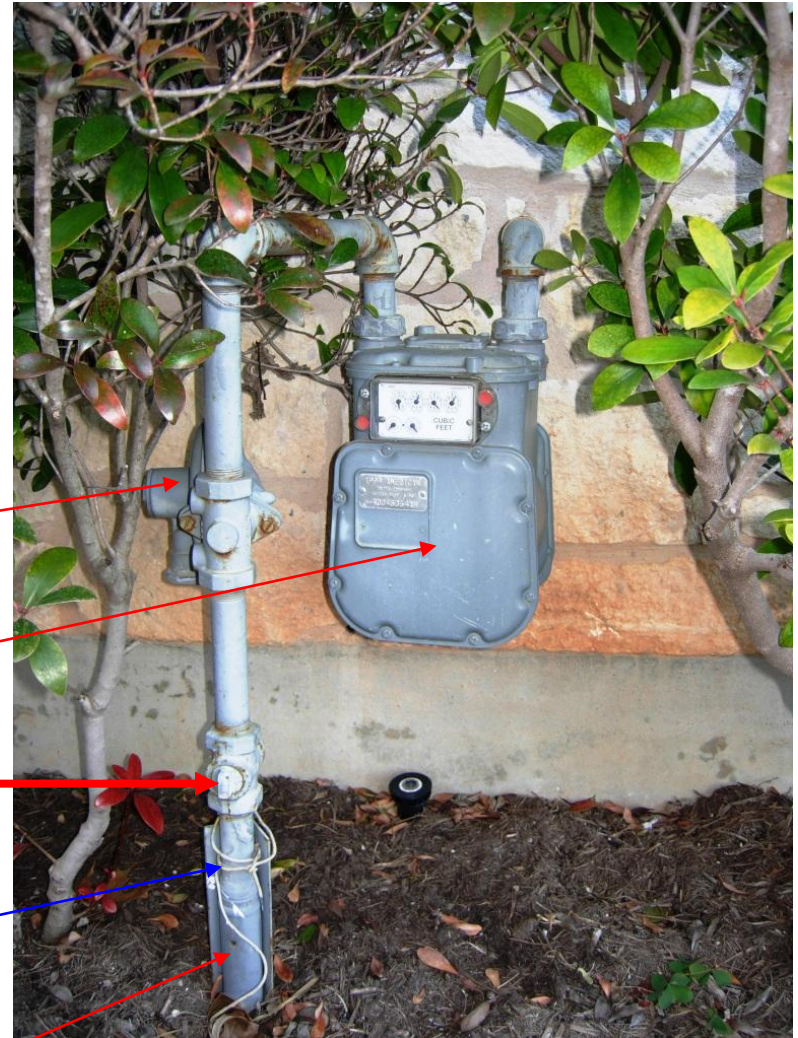
Pressure Regulator

Meter

Shutoff Valve

Tracer Wire
(Do not remove)

Supply Pipe



Typical Natural Gas Connection

Utility Shutoff

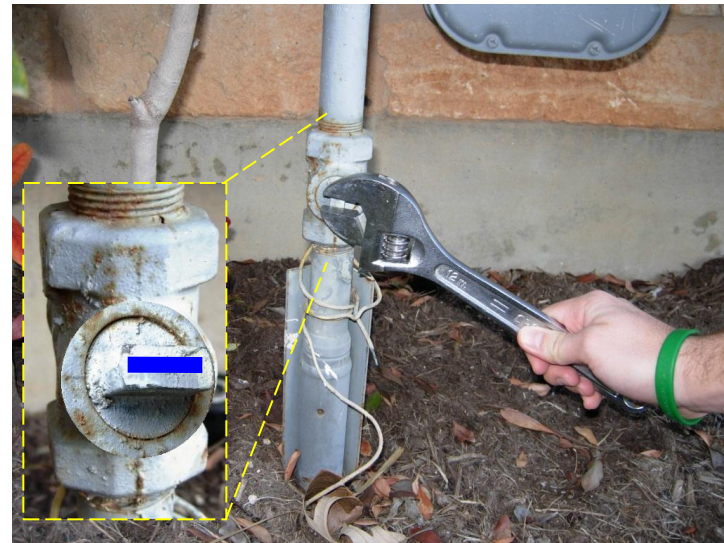
Gas

The gas valve operator is a rectangular bar that is turned to line up with the pipe (parallel) to supply gas and rotated ¼ turn sideways (perpendicular) to close the valve. It is a good idea to tag or paint this valve for quick location.

Keep a tool handy for emergency shutoff; a large adjustable wrench works, and there are special emergency shutoff wrenches available as well.



Valve Open (Gas On)



Valve Closed (Gas Off)



When gas is turned off for any reason, only qualified people should turn the valve back on. Plumbers and utility professionals have the knowledge and equipment needed to safely restore gas service inside the home.

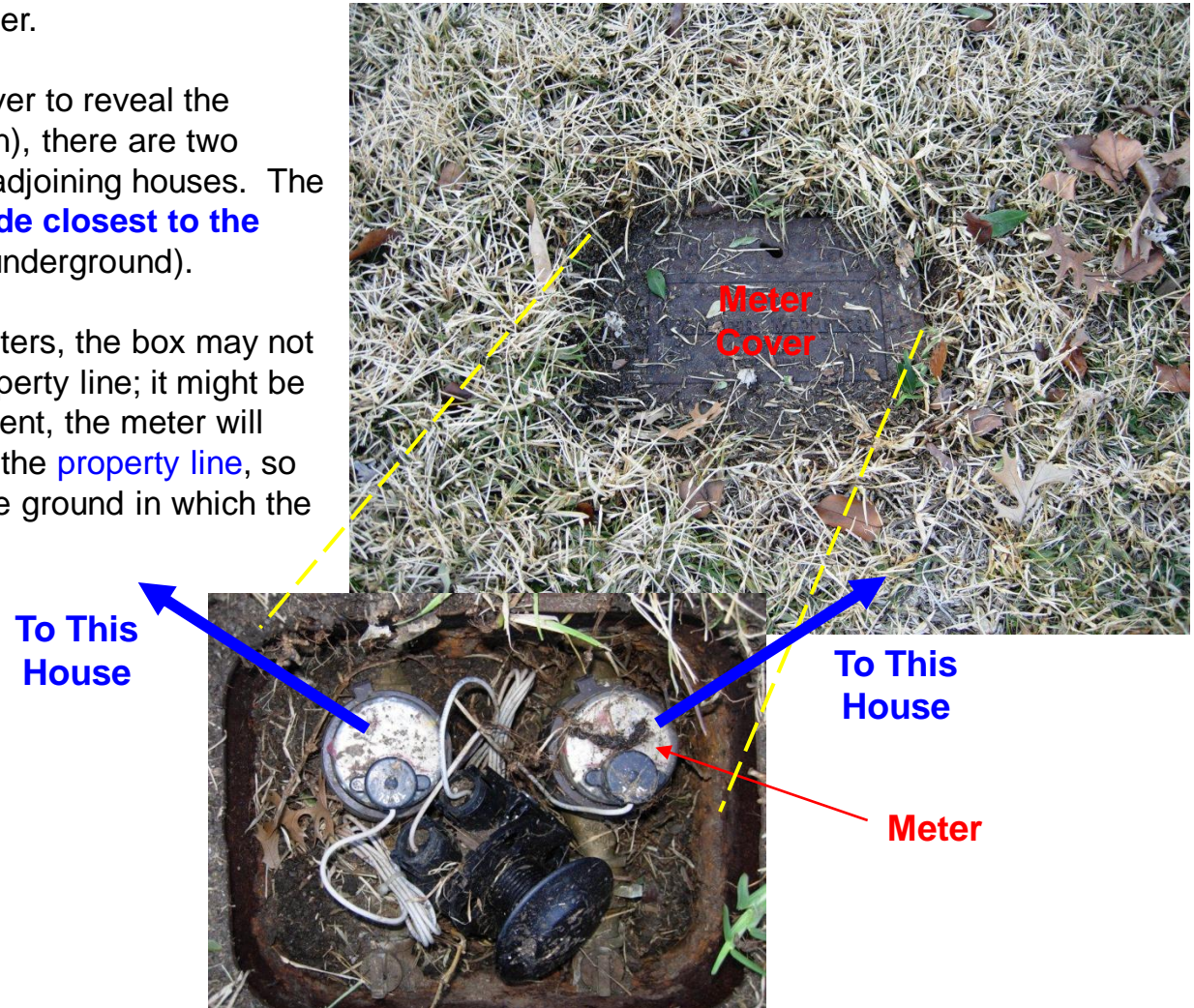
Utility Shutoff

Water

The water supply valve should be located in the ground near the utility water meter.

After locating the box, lift the cover to reveal the meter. In some cases (as shown), there are two meters in one box to serve two adjoining houses. The meter/valve should be on **the side closest to the house** (pipes should not cross underground).

In the case of a box with two meters, the box may not be located exactly along the property line; it might be in a neighboring yard. In any event, the meter will normally be on the utility side of the **property line**, so neither neighbor legally owns the ground in which the meter rests.



Utility Shutoff

Water

There is normally a shutoff handle near the water meter, and this **customer valve** is what the utility expects the homeowner to use. Turn clockwise to close, counter-clockwise to open. This valve may not always be right after the meter; it could be anywhere in line with the water main to the house.

There are two common problems with the in-ground customer valve. First, they are frequently buried under grass or landscaping and cannot be located quickly. Second, they are typically cheap gate valves which often become corroded and inoperable or do not shut off completely.

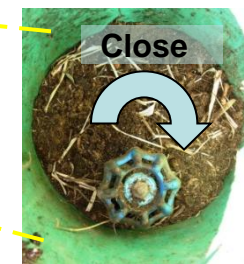
If the customer valve cannot be located or is inoperable, you need to close the utility valve before the meter, commonly known as the **curb stop** valve.



Curb Stop



Check Valve
(prevents backflow)



Customer Valve
(turn clockwise to close)

Meter

Utility Shutoff

Water

Like the gas valve, the curb stop has a rectangular bar which lines up with the pipe to permit flow and is turned perpendicular to the pipe to shut water off.



Valve **Open** (Water **On**)

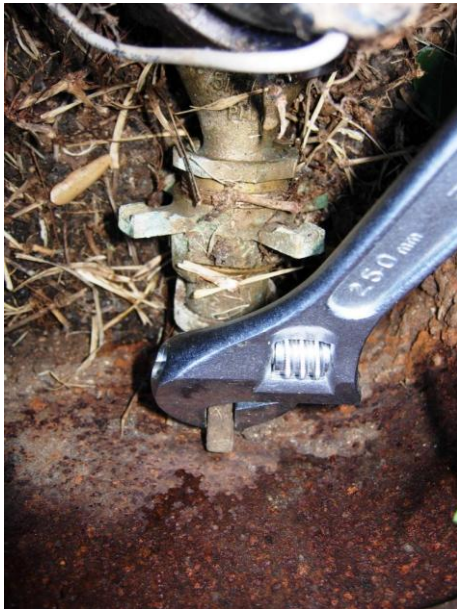


Valve **Closed** (Water **Off**)

Utility Shutoff

Water

As with the gas valve, a large wrench or pliers will work here, but the valve is often placed close to the side of the box that it is difficult to fully turn the handle.



A special “curb key” wrench with a long handle makes this operation much easier; they are readily available and inexpensive.

The water utility may not want you to use the curb stop valve to shut off your water. However, there is no harm in doing so and in an urgent situation or where the customer valve is inoperable, this may be the only alternative.

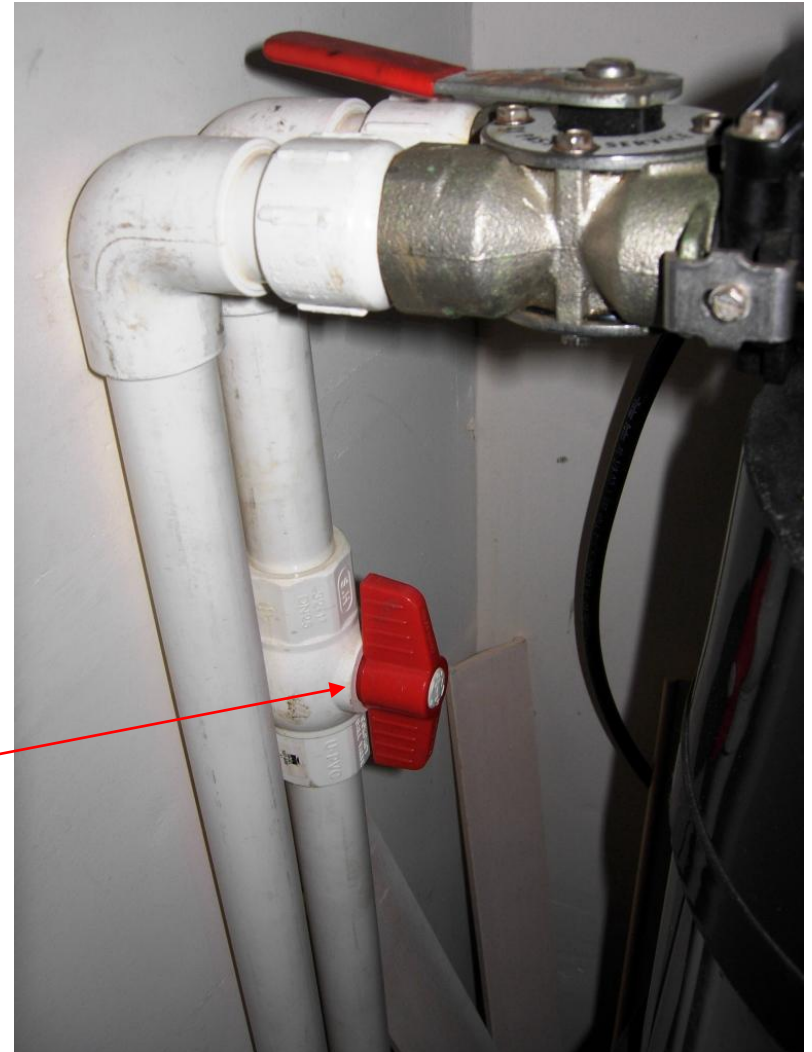
Utility Shutoff

Water

If the dwelling has a water softener or whole-house water filter, there may be an additional water shutoff valve in the supply pipe.

This provides a more convenient location to shut off water, as opposed to the valve near the street.

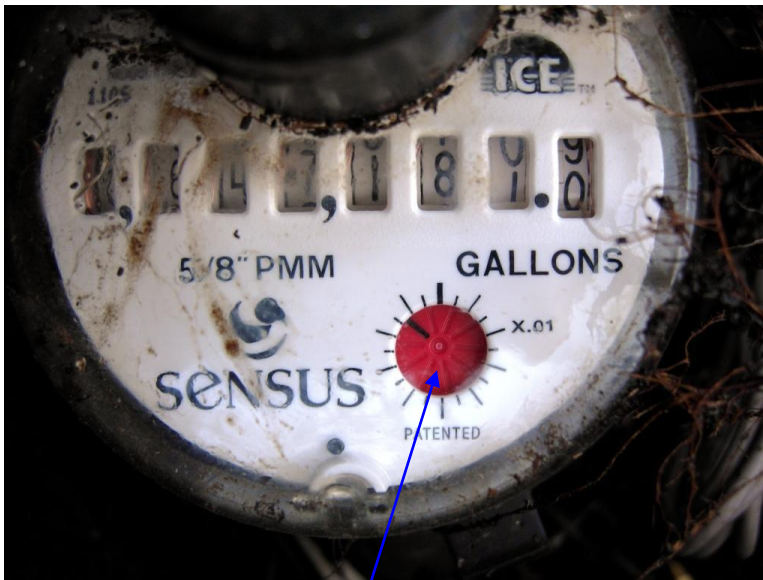
**Shutoff Valve
at Water
Softener**



Utility Shutoff

Water

Some water meters have these features:



“Tattler” dial indicates very low water flow rates, useful to reveal leaks.



Electronic device permits utility to quickly record water usage without reading meter dial.

Utility Shutoff

Underground Utilities

Water, gas and sewer utility lines are almost always buried. Electricity, phone and cable may also be underground, and most modern homes have all-underground utilities.

This gives homes a cleaner look but also complicates work in the yard. More utility lines in the ground means more opportunities for damaging the pipe, conduit or cable when digging. When digging is planned it is important to locate these underground utilities to avoid damage or disruption of your service (and potentially your neighbor's utilities).

For more information on underground utility lines, including the sewer line mentioned on page 1, the [gas line tracer wire](#) noted on page 5, and the water main [check valve](#) on page 8, refer to the HandyHomeowner topic index.

For more information on detecting and solving water leaks, including the [water meter tattler indicator](#) noted on page 12, refer to the HandyHomeowner topic index.

For more information on [property lines](#) and easements as mentioned on page 7, refer to the HandyHomeowner topic index.