

Problems and Solutions

Water Shut-off (commonly called a Curb Stop):

All homes have an indoor water main shut-off in a basement or crawlspace, but each home also has an outdoor shut-off called a curb stop. The Water Chairman, water operator and some board members have maps that show the location of these shut-offs. Unfortunately, some of the maps are inaccurate as they were made before some of the houses were finished and the shut offs were placed in a different location. The shut-off is 3-4 feet below grade and some can be difficult to locate because the mains are plastic and the only metal part is the cap, pipe and shut-off itself. We are regulated as a municipality so whenever you call JULIE, we have contracted with USIC Locating Services, Inc. to try and locate the waterlines leading up to the shut-offs. (See section titled, **Call JULIE Before Digging.**)

If you know where the shut-off valve is located and would like to shut the water off yourself, you may borrow a tool from the Water Chairman. The tool will remove the cap and has a special adaptor to shut off the water. It only takes a quarter turn on the valve to completely shut off the water unlike your faucets inside.

Is there a way to get debris (mainly dirt) out of the pipe when the shut-off is located in a PVC pipe in a driveway? This may not be an easy task especially if rocks have wedged their way inside the PVC pipe. You might try a small spoon to see if you can get the majority of the debris out. Though this is labor intensive, it is worth a try. If that doesn't work you might try a garden hose and let the water run slowly. If the pipe is just filled with soil, it might settle down below where the shut-off valve is located. If you find that the water is not going down the pipe, you might try a power washer. If that doesn't work or you are not comfortable trying to operate the shutoff, you may wish to contact a plumber to evaluate what might need to be done to access the valve. This would be at the homeowners expense.

Water Quality

There is a generalized solution to our water quality issues, but it is very expensive. If we were to construct a municipal water treatment facility, water quality issues would be resolved, including hardness, air, tannins, iron, etc. This has been discussed at Homeowners meetings and rejected due to cost. Such a system would cost about \$200,000 based on prices in 1980's and the maintenance expenses would be high. More chemicals would be needed and more time would be needed by the certified water operator to run the system. (Comment- many of our residents have come from urban areas where these kinds of facilities are the norm and they expect that kind of water here. There is a disappointment when someone moves to the country for the first time and finds that the water is not the same as in the city.)

Hardness

Individual commercially available water softeners are the solution. Culligan, Aquality, and others market these salt-based systems.

Air

Air relief valves exist to correct this problem. However, the Homeowners Association installed two of these at one house with very limited success. We cannot correct this problem at the system level since there are times that the water is being pumped directly from the well into the distribution system before actually going to the top of the tower for aeration. Air traps exist within the system that cannot be found, much less fixed. At the individual home level, different opportunities exist for trapped air to collect at spots in the pipes. The best advice we can give is to be aware of the problem and let the air blow out when you first turn on the water.

Low Pressure

There are several causes with different solutions:

1. Lost system pressure. This is a boil order situation when the pressure goes below 20 pounds per square inch in the primary system lines (not as measured in the home service lines). This can result from one of two possibilities:
 - a. Leak. If a pipe in the distribution system is broken, low or no pressure is possible. There is nothing the homeowner can do other than report the situation.
 - b. No water in tower. This is caused by either the pump not working or the demand on the system is so great that we can't meet it. Again, the homeowner is without recourse other than reporting.
2. Too many open valves within the home. If too many people are trying to use the water at one time within the home, reduced pressure is a certainty. One form of this problem that frequently goes unnoticed is that the timer on the water softener gets put off due to a power outage and the result is that a softener runs during the day when someone is trying to use water for other purposes. The solution is to turn something off.
3. Constriction within the home system. There are many possibilities where a contractor or water system person has constricted the pipes at some point to reduce pressure. One important point to be kept in mind relative to pressure is that gravity is the source of our water pressure. The pump in the well does not provide the pressure. Aside from the situations already mentioned, everyone should have the same pressure if they are at the same elevation

relative to the tower. The people living on higher ground will tend to have lower water pressure. A single faucet open should provide three gallons per minute. There is no way that we can increase pressure on a system basis. Homeowners should keep this in mind if they are considering automatic watering systems for their yards. We do not have enough pressure to supply water concurrently to several sprinkler heads at one residence. A way must be designed to alternate which sprinklers are on at any given point in time.

4. Low pressure due to hydrant flushing. This is not a water system pressure issue.

Unclear Water

There are several sources:

1. Suspended sediment or particulate matter. This is material that naturally exists in the water and concentrates and settles at low points in the system. We flush the system periodically as described in the "**Flushing Hydrant**" section. The sediment is stirred up by an increase in the velocity of the water through the system. This can happen due to flushing or peak temporary demands on the system. That is why this seems to be an intermittent problem. The best action for someone to take to clear this problem is to run an outside hose until the water clears up. Keep in mind that if the dirty water has already made it into the house, it may be in the water heater and take a day or two to clear up.
2. Yellow or light tea colored water. The cause of this was debated and the following explanation is from the State Water Survey in Champaign, an unbiased agency. The primary culprit is tannin, the same ingredient used to color Coke. This is secreted from tree roots and leeches through the ground to the water table. It is not sediment. There are two basic removal techniques:
 - a. Charcoal filters in line with the softening system. This is effective and introduces no harmful chemicals into the water. There is a drawback. The chlorine put in our water to remove bacteria will attach itself to the charcoal filter. The result is that the filter loses its effectiveness slowly and after a few months must be changed.
 1. b. A chemical filter such as potassium permanganate. These systems are generally available and are effective. Although denied by the

vendors, there is some evidence that these chemicals do get into the drinking water.

- c. Reverse osmosis. These are usually small units attached to the drinking or ice maker lines to produce clear water. They are also very effective.

Water Operator:

Because we are regulated by the Illinois Environmental Protection Agency, we have contracted with a certified water operator. He monitors the chlorine and fluoride that are added to our water. Also, he is available for questions, keeps us in compliance with all state and federal water standards and makes recommendations when necessary. Please contact our ICWHA Water Chairperson or other Board members with water-related questions. The chairperson will contact our water operator, if needed.

Pressure Tank:

Would adding a pressure tank to my home help with the water pressure? A pressure tank works well as long as you do not need long duration high water pressure. For example, if you were wanting to water your lawn the bladder inside of the tank could not keep up with the demand. If you are just wanting better pressure throughout the house, then yes a water pressure tank works well. Also, if you do install one of these devices make sure you put a backflow device in place to prevent water from feeding back towards the water source. You can find these water pressure tanks at Menard's, Lowe's and Home Depot or through a plumber.