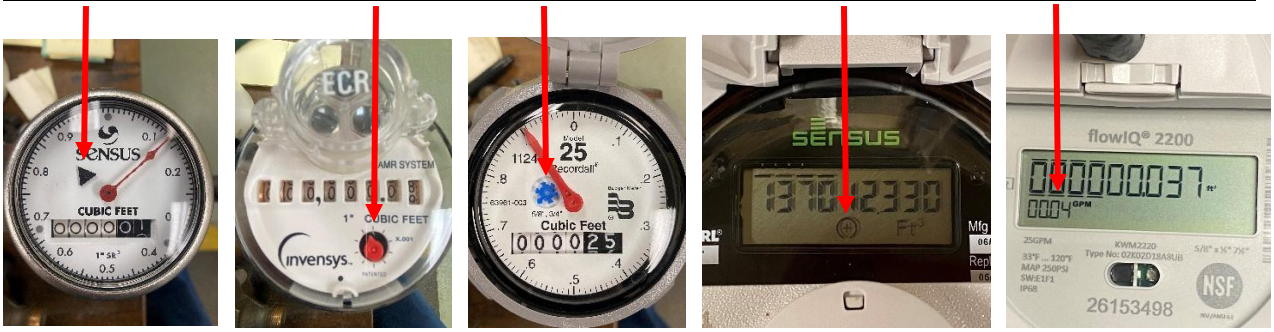
How to Lower Your Water Bills

If you feel that your billed water consumption does not correlate to your perceived water usage, you should check for leaks. The most common source for leaks is typically from toilets and outside watering, as they may not display the obvious signs that are more consistent with a leak that you might find on your sink or shower faucets. Some leaks can be sporadic, which require a little investigative work to identify, while other leaks can be more obvious.

How to detect a leak

A good place to start when investigating a leak is at your water meter. Although there are exceptions, the meter is typically located near the service line entrance of the building. You should start by making sure that any water fixtures in the home are not actively in use (dishwasher, washing machine, lawn sprinklers, etc.). Each style meter typically displays some type of moving “low flow indicator” or digital icon that provides a visual confirmation whenever there is a progressive movement of water through the meter. On the mechanical meters the indicator will stop once the flow of water does, whereas a digital meter may still display an icon for up to a minute after the flow stops, while it continues analyzing (with the anticipation of the flow resuming). With all the water fixtures off, any continuous movement on the meter should alert you of a possible leak.

Below are most of the different style “low flow indicators” that can be seen in our system.



The most common causes of water leaks

- **Toilets**: Make sure to lift the tank cover then look and listen. Toilet flappers are rubber seals that can degrade over time, causing the tank water to drain into the bowl which, once low enough, triggers the fill valve to refill the water in the tank. The fill valve, if not shutting off properly, can cause continuous filling of the tank, but due to the overflow tube in the tank redirecting any excess of water into the drain, it will not allow water to spill out over the tank onto the floor. Waiting a few minutes after the last flush and then placing a dye in the toilet tank water can help to determine if something is not working properly. Wait for at least 30 minutes and if the dyed water is appearing in the bowl (without flushing), you have a leak. It may take several flushes after the test is complete to remove any remaining dye from tank and bowl, which depending on the dye used could affect the porcelain.

- **Garden Hoses**: People often leave the hose spigot turned on all the time so they can just operate the sprayer nozzle at the opposite end of the hose when watering flowers or gardens regularly, but if any of the gasketed connections (especially when hidden behind a bush or other object) are leaking, it could become the source of a continuous water leak. Be sure to check at both ends of each length of hose for any connection leaks. Hoses that were not properly drained and/or stored in the winter may also have sustained damage due to freezing and should be repaired or replaced.

- **Irrigation Systems**: Irrigation systems that are not equipped with rain sensors (to prevent them from cycling during active precipitation) can lead to unnecessary water usage and potential overwatering that can damage your lawn. Systems equipped with deduct meters (for public sewer forgiveness and private monitoring) should be checked regularly, as movement on a deduct meter while all zones are

off is an indicator of a leak in the system. If the system is running and there is no movement on your private deduct meter, then the deduct meter may be defective. Be advised that any higher water consumption registered on the public water meter (which captures all the water coming into your house) will also translate to a higher sewer bill unless your deduct meter is working properly, to prove that the irrigation system usage did not go into the public sewer system. Customers should also be conscious of any changes made to the frequency and/or duration that their systems are programmed to run, as it could have a larger than anticipated impact on your total usage. If you see an area of the lawn that you perceive to be much greener than the rest, or the ground feels unusually soft, these may also be indicators of a potential leak in that general area.

- **Hot water heater**: Check to make sure the pressure relief valve is not discharging water. Most properties are equipped with a backflow prevention device which creates a "closed loop system" as it pertains to the internal plumbing. It's a good idea to make sure your system is equipped with an expansion tank (and properly charged with air) to absorb pressure surges often created due to water hammer and thermal expansion during the heating process. Regular flushing of your hot water tank can work to remove sediment buildup, which can help to reduce internal corrosion. Hot water heaters located in moist environments can also suffer from external corrosion, which reduces the normal 8 to 15-year lifespan of a water heater. Proper maintenance can help to extend the lifespan of your water heater.

- **Backflow Prevention Devices**: Some backflow prevention assemblies, like reduced pressure zone "RPZ" devices (which are commonly found on high hazard systems), are equipped with relief valve opening that can discharge water (when it opens) for the purpose of introducing air into the line to prevent the back siphonage of potential contaminants into the main water supply. In addition, if some of the components become worn or obstructed, this can also trigger the relief valve to open, thus discharging water. Damaged rubber seals (either aged or compromised from debris) and/or weakened springs in the device should be replaced to prevent unwanted discharge. The annual required testing of these devices as required by the York Water District's cross-connection rules, as well as the State of Maine Department of Health and Human Services is a critical step for the tester to determine when these repairs may be necessary. Customers should also periodically perform a visual assessment of these devices to ensure there isn't any unwanted discharge, which can act as an early indicator that repairs are needed.

- **Metered service lines**: Our system has several properties where the meter is located near the road (or water main) and is housed in either a meter pit structure (for annual accounts) or a meter box (for seasonal accounts). In many of these scenarios, most of the private portion of the service line is being metered, which leaves the potential for more connections that could leak and affect your bill. Visually confirming that any exposed piping is not leaking (especially exposed or shallow buried lines that are affected by frost movement or falling debris) should be a priority each season. A sudden notable drop in water pressure could also be an indicator of a potential leak.

Other considerations for higher usage

- **Tenant Use**: During the bill cycle in question, were there any additional visitors, family members, or tenants staying at this location? Or a different group of tenants? Does it align with a period of school vacation with students returning home? Not everyone is conscious of water conservation, especially if they are not paying the bill.

- **Recent Work**: Has there been any work performed recently at this location? Assess whether any potential work done on the plumbing system could be a factor. It's possible that even carpentry work may have inadvertently damaged some unexposed plumbing lines. Was there any pressure washing performed at this location or nearby that may have utilized a local hose connection?

- **Commercial Equipment**: Is there any commercial equipment connected to the water (beverage/coffee machines, dishwashers, steam boilers, swimming pool/hot tub, ice making equipment, etc.) that may be using water regularly?

Alternative ways to avoid unwanted water use

- **Isolation**: Turning off your water supply when you are away for an extended period can help to eliminate water usage due to leaks. Keep in mind that some boiler systems may periodically call for water to function properly and should be taken into consideration. If you've uncovered issues with a toilet needing repairs, keeping it turned off at the shutoff valve near the floor (when not in use) can help lower your usage until it gets fixed. Turning off your outside faucets (from inside the house) during the winter months can eliminate the risk of falling ice/snow (from your roof) accidentally turning the handle on when it comes down.

- **Insulation**: Water lines should be in areas that are well insulated or heated, but when a line is in an area susceptible to cold temperatures, additional insulation or line heaters may be necessary to prevent freezing, which could result in burst pipes. Identify any points that may be sources of cold air current (windows, doorways, gaps in stone foundations, etc.) and make every effort to seal them.

Waste per quarter at 60 psi water pressure			
Diameter of stream		**Gallons**	**Cubic Feet**
•	1/16"	74,000	9,850
●	1/8"	296,000	39,400
●	3/16"	666,000	89,031
●	1/4"	1,181,500	158,000
⬆	A continuous leak from a hole this size would, over a three month period, waste water in the amounts shown above.		

Still need help?

If you have made every effort to locate the potential source(s) of your high-water usage without any luck, please feel free to contact our office at **207-363-2265** to schedule an appointment for one of our technicians to inspect your plumbing and make recommendations for you to pass on to your plumber for repairs. Please note that in some cases we still may be unable to identify the source(s) of an isolated water usage event.