

## FROZEN WATER SERVICE LATERALS FAQ's

1. **Why do water service laterals freeze, aren't our pipes buried deep enough?** – There are 3 main factors which contribute to freezing of a water service lateral – **Frost Depth, Water Usage, and Exposure to Weather.**
  - a. **Frost Depth** - “Normal” maximum frost depths in our region are 4 to 6 feet. In paved areas or other areas where snow is removed frost can drive down deeper. As the frost level goes down it approaches and, in extremely cold winters, can reach near the depth of water service laterals. In older parts of the Utility's service area water mains and service laterals may only be between 6 and 7 feet deep. In areas of newer construction water mains and service laterals should be 7 feet deep or more. Think of frost as simply a block of ice in the ground which grows larger and larger from the ground surface downward. If the block of ice touches or surrounds a water service lateral, the lateral will freeze without water running through it. Frost depth is the most important factor in causing water service laterals to freeze underground.
  - b. **Water Usage** – This applies to both the water mains and the water service lateral itself. Lower usage is going to mean the water stays in the pipes longer. If water usage in the mains is lower the water gets colder. If water usage on a lateral is very low or even stops (such as when a resident goes on vacation) the water in the lateral will become even colder and, if the frost is deep enough, the lateral freezes. Customers with low usage (single occupant homes for example), businesses with long periods of no water usage on weekends, homes unoccupied during vacation periods, etc., are going to be much more likely to freeze during these cold weather periods.
  - c. **Exposure to Weather** – There are 2 ways municipal water supply temperature can be affected by the air temperature. Your service lateral may be exposed to drafts or cold air near where it enters your building. The other “exposure” is from water being stored in elevated water towers where it cools (or warms) during the time it stays in the tank. Most water towers in our region will develop ice along the tank walls during a winter season, but the majority of water remains liquid due to the daily filling and usage cycle.
2. **Is there anything I can do to prevent my water service lateral from freezing?** –
  - a. You should always make sure your lateral and plumbing inside your home or business are shielded and insulated from cold drafts and building interiors are kept warm enough to prevent the pipes from freezing. If you have pipes on the interior

side of an exterior wall, inside of cabinets, it can help to open the cabinet doors to allow warm air to circulate around the pipes.

- b. At the time of initial installation of your water service lateral your plumbing contractor should have observed standard practices for minimum bury depth of the water service lateral. If the minimum bury depth could not be met, the water service lateral should have been insulated.
  - c. In a typical winter season there is really nothing you need to do to prevent the underground part of a water service lateral from freezing, as long as it has been installed properly. In an unusually cold winter when frost depths are greater than normal, utilities sometimes make the judgment call of advising customers to run water as a precautionary measure rather than respond to high numbers of customer freeze-ups. If the underground portion of your water service lateral has a history of freezing, if the Utility feels it may be in danger of freezing, or if it has frozen, the Utility will advise you of measures to take. The most common advice the Utility gives is to continuously run a ¼ inch stream of water (the size of a pencil) until frost has disappeared from the ground. As long as water continues to run at a high enough rate it should not freeze. The Utility offers some additional advice once you have been notified to run water in FAQ #3.
- 3. If I need to run water for freeze protection, which faucet should I run?** – Any faucet in your home or building will draw water from the underground part of the service lateral into the internal plumbing. There is no need for this water to run through the entire internal plumbing system. You might prefer to run water in a utility sink, typically in your basement, so you are less likely to be disturbed by the noise from running water. Whatever faucet you choose to run, it would be a good idea to make sure all your family members or business associates know about it and even tape a sign to alert others to the situation.
- 4. Is there any way to tell if my water service lateral is about to freeze?** - There are some things to be aware of as possible signs your water service lateral is on the verge of freezing. These include:
- a. A noticeable reduction in the amount of water you see flowing out of your tap(s).
  - b. A reduction in water pressure
  - c. Discoloration of the water
  - d. Cold water temperature of 34 degrees or less
- Items a, b, and c, are likely a result of an ice cube or plug forming in the service lateral. The discoloration would be from the ice plug loosening deposits on the inside of the pipe.
- 5. I noticed the signs my water service lateral might be freezing, what should I do?** - The best thing you can do if you observe some of the signs your water service lateral is

on the verge of freezing is to run one or more faucets at full stream for 5 to 10 minutes. This should draw warmer water into your water service lateral which, as it flows, should be able to melt the cube or plug which has formed. You can contact the Utility at any time for any additional advice.

**6. Who is responsible for thawing a frozen water service lateral?** – The rules the Utility follows are set forth by the Public Service Commission (PSC) of Wisconsin. Those rules are contained in Chapter 185 of the Wisconsin Administrative Code, or PSC 185. [PSC 185.88](#) describes the rules related to frozen water service laterals. The basics of the rule are:

- a. If this is the first time your water service lateral has frozen and it cannot be determined if the freezing is on the customer's or the Utility's side, the Utility is responsible for the cost of thawing, unless item c, below, applies.
- b. If it is known the water service lateral has frozen on either the customer's side or the Utility's side, the cost of thawing is the responsibility of the party whose service lateral has the "problem."
- c. If the customer's portion of the water service lateral is made of non-metallic material, the Utility is not responsible for thawing the lateral. ([See map of non-metallic service locations](#)).

There are a number of water service laterals which are known to routinely freeze each year. Some of those freeze on the customer's portion of the water service lateral and some on the Utility's portion of the lateral. The Utility is required to annually notify those customers whose service laterals freeze on their portion to either take measures to prevent freezing or, at their option, pay for thawing the service lateral if it freezes. If the freezing is something known to occur on the Utility portion of the water service lateral, the Utility either takes measures to prevent freezing or takes care of any costs to prevent freezing. You may also wish to review the [PSC's FAQ](#) on this topic.

**7. How will I know whether to start or stop running water for freeze prevention?** – The Utility either notifies you or you have received confirmation to run water for freeze prevention. Freeze prevention is accomplished by running a ¼ inch stream of water continuously until frost has disappeared from the ground. Whether the customer is responsible for the cost of the water or whether the Utility is responsible for the cost of the water, if the service lateral freezes after the customer has been notified, the customer is responsible for the costs of thawing the lateral. Warmer temperatures and melting snow do not signal frost has thawed underground. It is normal for the frost to remain underground until the middle of May in our region. Please contact the Utility if you have any questions.

- 8. Why doesn't the Utility just notify everyone to run water to prevent service lateral freeze-ups?** - The decision to run water for freeze prevention is a judgment call on the part of the Utility and the Utility does not want to encourage waste of water. Other considerations in extremely cold winters relate to the additional cold water being run into the sanitary sewer and possibly freezing either your sewer lateral or the sewer main due to extreme frost depth as well.
- 9. My water service lateral has frozen, what do I do?** – Contact Weston Municipal Utilities immediately at 715-359-2876, any time, any day. You will reach our answering service during non-business hours. The Utility policy is only to trouble shoot and work to correct water service lateral freeze-ups during daylight hours as a matter of safety for the operational staff assigned to respond to these problems.
- 10. My neighbor's water service lateral has frozen. I don't have any problems, but the Utility still wants access to my home. Why?** – The preferred method to thaw a water service lateral is to run an electrical current through the frozen water service lateral with a portable welder. The current heats up the pipes sufficiently to melt the ice and thaw the service line. If the water service lateral is frozen on the Utility's portion of your neighbor's water service lateral, the only way to make a circuit is to connect to the closest point of access to the water distribution system. This is usually the next closest water service lateral connected to the water main. It could also be water service laterals on either side of your neighbor's house or on the opposite side of the street. The idea is to make the circuit as short as possible without passing other possible circuit branches (other service lateral connection points) to minimize the chance for current to travel somewhere it isn't needed or wanted.
- 11. I have been told my water service lateral is non-metallic (i.e. plastic), how can my lateral be thawed?** – The conventional method of using a portable welder cannot be used to thaw a non-metallic water service lateral, since it does not conduct electricity. This is the reason the current language in [PSC 185.88](#) does not require the Utility to thaw these service laterals. For this reason, all customers the Utility knows to have a non-metallic service lateral have been advised to run their water continuously for freeze prevention as described earlier. The recommended method of thawing a non-metallic water service lateral is with hot water no more than 80 degrees in temperature. The Utility has access to such equipment, but if it is needed there is likely to be some time required, perhaps a day or more, before the equipment is available.
- 12. If my water service lateral has frozen, isn't the Utility obligated to restore my water service in a specific time?** - Aside from monitoring the conditions in the water distribution system and changing operating levels in water towers, there is very little the Utility can do except alert customers when conditions exist which could cause water service laterals to freeze and notify customers to run water. These conditions are acts of nature and beyond the Utility's control. The Utility will make every effort to restore a

customer's service when the Utility is responsible to do so. However, the Utility has limited resources and extended periods of service interruption may occur, especially if there are widespread problems. Water service lateral freeze-ups are responded to in the order in which they are received. The Utility policy is to restrict working on thawing water service laterals to daylight hours as a matter of safety for the operators.

**13. I reside in a mobile home park, am I supposed to run water for freeze protection?** – Mobile home parks served by Weston Municipal Utilities are considered single customers. If you reside in a mobile home park you should consult the park owner or manager for any recommendations they have on this topic.

**14. I live in a rural part of the Village and have a private well for my water and a private septic system for wastewater. Am I supposed to run water?** – Neither Weston Municipal Utilities nor the Village of Weston has authority to oversee private potable water wells or private wastewater disposal systems. All installations are going to be different and you should contact your plumbing professional for any advice on whether you need to do anything to prevent freeze-up of your private plumbing systems.

**15. An additional note for customers running their water for water service lateral freeze prevention:**

**Be sure you have someone verify there are no problems with sewer back-up and water continues to flow from your tap. This is especially applicable to businesses over weekend periods or homeowners who are planning to be away for any length of time.**

**16. I was notified to run my water for freeze prevention. Now my sewer lateral has backed up. What do I do? What will the Utility do?** – Sewer laterals are the responsibility of the customer for the entire length between the main and the building served. A sewer lateral could back up for many reasons including, a collapse, rags, paper products, or other materials being flushed down a drain – actions which are not within the Utility's control. In addition, the "freezer" effect of a sewer lateral surrounded by frozen earth is something that is also beyond the control of the Utility – it is a circumstance of nature.

If you are having sewer problems such as water or sewage backing up into your basement, you may have a blocked sewer lateral. Your first step should be to notify the Utility of your problem by calling 715-359-2876 at any time. During non-business hours you will reach the Utility's answering service and someone from the Utility staff will contact you.

Anytime there is a report of a sewer lateral back-up the Utility will check first to determine if there is a blockage in the sewer main in the street. If the main in the street is

not flowing freely, the Utility will take steps to clear the blockage. If the main in the street is flowing freely, the Utility will advise you to make arrangements with a plumbing contractor of your choice to determine the cause of the blockage and take corrective action.

If you have any further questions or concerns about a sewer lateral backup, please contact the 24 hour Utility at 715-359-2876.

The Utility is currently working on a series of FAQ's for sanitary sewer laterals.