Frequently Asked Questions: Watermain Breaks

Q. What is a watermain?

A: A watermain is an underground pipe that delivers water to the customer's service pipe. In residential areas, the watermain is usually located under the street.

Q. What causes watermain breaks?

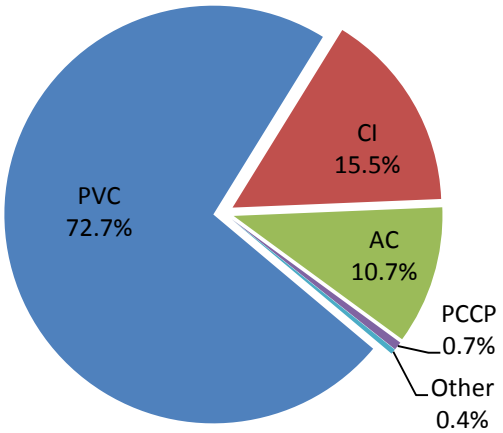
A: Although watermain breaks can happen for a variety of reasons, in Moorhead, they most often occur due to corrosion of cast iron pipe and freeze/thaw cycles. Corrosion on a cast iron pipe causes the wall of the pipe to break down and weaken. Eventually, the pipe breaks down enough that a leak is caused. Expansion and contraction of soil during freeze/thaw cycles causes pipes to shift along with the soil. If the pipes shift enough it can cause a watermain break. Various other conditions, such as soil-type and pipe age, can have an impact on watermain breaks, as well.

Q. How many watermain breaks are there in Moorhead each year?

A: Moorhead Public Service (MPS) averages 44 watermain breaks per year—with the majority occurring during the winter months. The most watermain breaks in a one-year time period occurred in 1988, when there were 144 watermain breaks.

Q. What type of watermain is installed in Moorhead?

A: In 2014, MPS' water distribution system was made up of PVC, cast iron (CI), asbestos cement (AC), pre-stressed concrete cylinder pipe (PCCP), and a variety of other pipe materials. A breakdown of the system composition in 2014 is shown in the pie chart below:



Frequently Asked Questions: Watermain Breaks (continued)

Q. What should I do if I suspect a watermain break has occurred in Moorhead?

A: If you observe water running from the streets or sidewalks during a normally dry time, please report the leak to Moorhead Public Service by calling our 24-hour line at 218.477.8080. MPS asks that you provide specific information about the location and appearance of the break when reporting a water emergency.

218.477.8080 (Option 4)

Q. How long does it take to repair a watermain break?

A. If the watermain break is simple, the break may be repaired in less than one day. More complicated repairs may take several days to complete. MPS prioritizes watermain repairs based on several factors including severity of the break, impact to customers and the environment, potential damage to public and private property, and unsafe traffic conditions due to street flooding. Emergency watermain breaks can cause widespread service disruptions and are considered critical repairs.

Q. How does MPS respond to a watermain break?

A: The following is the process involved when a watermain break occurs:

1. Leaks are reported to MPS' 24-hour emergency line at 218.477.8080.
2. A Water Division employee investigates the reported leak.
3. The Water Division employee determines whether the leak is actually a watermain break.
4. If the report is indeed a watermain break, the Water Division employee determines the severity of the leak and whether or not the leak is an emergency situation.
5. If the leak has caused damage to a road or sidewalk, the area is blocked off from traffic and a traffic detour is implemented, if necessary.
6. MPS' Dispatcher requests that utility locates be made in the area. MPS may not excavate to repair the watermain break until all utilities have been located.
7. Equipment is brought to the site to excavate the ground and find the leaking watermain.
8. When the leak is found, the watermain is isolated by closing nearby valves. This helps MPS' crew complete the watermain repair in a more timely fashion. Nearby water service may be disrupted during this time.
9. The watermain is inspected to determine the best repair for the situation.
10. Most often, MPS has the necessary parts on hand to repair watermain breaks and will repair it on the spot. However, sometimes the parts need to be ordered and the repair may take days.
11. When the watermain is repaired, it must be re-filled with water. This process may take some time so that another main break, which could be caused by a pressure spike in the pipe, can be prevented.
12. After the watermain is filled, restoration begins. This may include roadway, sidewalk, and boulevard repairs.
13. If the watermain break is simple, it may be completed in less than one day. More complicated repairs may take several days to complete.

MOORHEAD PUBLIC SERVICE

Watermain Repair

Figure Descriptions: A) Excavation, **B)** Detection, **C)** Assessment, **D)** Pipe surface cleaning for repair, **E)** Repair, and **F)** Backfill and pave.

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