



Actions for Flood Resilient Homes: Sump Pumps

Other considerations

- Drain tile around your home is an essential part of your sump pump system. The purpose of the tile is to collect water around the basement foundation and channel it to the sump pit.
- Gutters can significantly affect the water that gets into your basement. Make sure your gutters are well maintained and large enough to handle heavy rains. Downspouts should be directed away from the home. Similarly, make sure that the land next to your home is properly graded—directing water away from the foundation.
- Sump pumps should be checked regularly, particularly in early spring and when heavy rains are forecast. To test your pump, pour a bucket of water into the pit to make sure it starts automatically and that the water pumps out quickly.
- Pump maintenance should include removing the pump from the pit and cleaning the grate on the bottom. You should also make sure that if you are using a discharge pipe, the air gap is clear. The air gap is located outside your home, where the sump pump's internal discharge line exits the basement and connects to the external discharge line. Its purpose is to provide an outlet for flows in the event there is a problem with the discharge line or the stormwater system. If the air gap is obstructed, water can backflow, flooding the basement and causing the pump to burn out.
- A standard 15-amp, 110-volt, three-pronged grounded electrical outlet can handle a sump pump. The outlet should be an isolated line, with no other connections between the breaker and the outlet. Because the pump is located near water you may want to plug it into a working ground fault circuit interrupter (GFCI). However, keep in mind that lightning has been known to trigger GFCIs and could shut off power to your pump during a heavy rainstorm. Make certain to check on the pump during the storm so you can reset the GFCI if necessary.
- Consider replacing your sump pump every 10 years.

Connecting your sump pump to City of Edina storm sewers:

- The pipe exiting the house should have an air gap and drain to an area that slopes away from your home's foundation. Direct the drainage away from your home toward green areas that infiltrate water or toward public drainage paths.
- Sump drain lines can connect your sump pump directly to the storm sewer. This is best done by a licensed professional and requires a permit from the City of Edina.



Air gap types (left to right): Atrium, candy cane, pipe in pipe.
Images source: City of Ann Arbor https://www.a2gov.org/departments/engineering/Documents/AirGapInfoSheet_2018.pdf

Make sure your sump pump is ready for whatever water comes its way ...

Sump pumps often come with water-level or flood alarms to alert you if the pump fails. Some can even call your cell phone or notify your alarm company. To minimize the risk of flooding, test your sump pump periodically to make sure it is in good operating condition. Your user's manual should specify when and how to test your pump. You can also consider investing in a backup pump to operate if the primary pump fails or becomes overwhelmed with water from a large storm. Similarly, because sump pumps operate on electricity, they are vulnerable to power outages. Pumps with backup battery power are available, or a generator can be used.

For more information on flood resilience, contact the Engineering Department at 952-826-0371.

Sump pump standards can be found at: <https://www.edinamn.gov/DocumentCenter/View/397/Sump-Pump-Discharge-Connection-Policy-PDF>

Information on utility connection permits can be found at: <https://epermits2.logis.org/home.aspx?city=ed>

Sump drain detail: <https://www.edinamn.gov/DocumentCenter/View/848/310-Sump-Drain-PDF>

Sump drain connection detail: <https://www.edinamn.gov/DocumentCenter/View/849/311-Sump-Drain-Service-Connection-PDF>

Installing sump pump requires a permit: <https://www.edinamn.gov/209/Building-Permits-Resources>