

# WHAT CAN RESIDENTS DO NOW TO REDUCE THE RISK OF BASEMENT FLOODING?



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Ypsilanti Community Utilities Authority  
in conjunction with OHM Advisors.



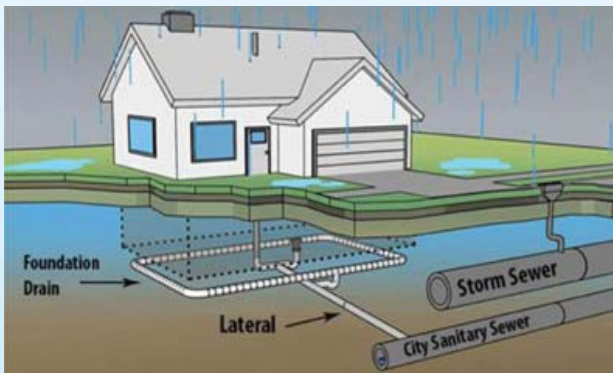
## AROUND THE HOUSE

### TOP PRIORITY:

- Ensure soil is graded (sloped) away from the house. Ensure there are no low spots or areas that trap water within 10 feet of the basement foundation. It is imperative that water is drained away from the foundation of the home.

### OTHER IMPORTANT ITEMS:

- Downspouts should be extended away from the house.
- Ensure gutter system is working correctly. Identify where and how it is discharging to ensure water is draining away from the foundation.
- If there are external stairwells or basement egress windows, consider covering or enclosing them to ensure surface water is not entering. This water will go directly into the footing



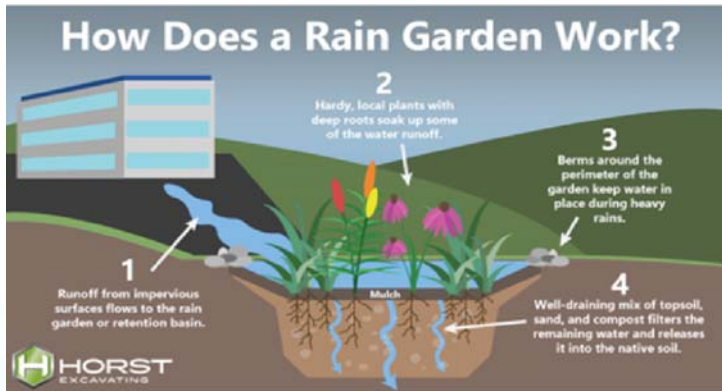
*Image Credit:  
Milwaukee Metropolitan Sewerage District*

drains around the home. External stairwells often have drains in the bottom. If the drain clogs with leaves or debris, water will back up at the bottom, breach the threshold, and enter the basement.

- Perform a camera inspection of the sanitary sewer lead/lateral. If roots, cracks, offsets, etc. are identified, replace or line the service lateral to limit infiltration into the system as well as prevent backups. The sanitary lead for the home includes the tap into the sanitary sewer main.

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## ITEMS THAT WILL HELP THE OVERALL SYSTEM:



- Direct water from poorly drained surfaces to grassy or landscaped areas to allow the water to soak into the ground before running off the property.
- If possible, treat the runoff water with rain gardens or other stormwater treatments. Install rain gardens in as many places as possible, both on the property and in the right of way.

## IN THE BASEMENT

### SUMP PUMP ITEMS:

- Backup the sump pump with a battery or other backup system (water operated, second pump system at a higher point, extra pump ready, and/or generator for home, etc.).



- Maintain sump systems and test them at least twice a year.
- If there is no backup for the sump pump, consider a pump and check valve assembly being present next to the sump for quick replacement in the case of failure.

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*If there is no backup for the sump pump, consider a pump and check valve assembly.*

- Install a water alarm in the basement at the lowest point. Consider installing a second water alarm in the sump basin or footing drain cleanout.
- Install a generator system considering its ability to operate key parts of the home (sump, refrigerator, lights, etc.). This can be a key function during extended power outages.



- Additional information regarding basements and sump pumps can be found here at [www.a2gov.org/departments/engineering/pages/basements-and-sump-pumps.aspx](http://www.a2gov.org/departments/engineering/pages/basements-and-sump-pumps.aspx).

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## OTHER BASEMENT ITEMS:

- Ensure drains are accessible in the basement. Locate clean outs for the sanitary system and footing drains if present. Understand where the floor drains in the basement discharge for both the sanitary system and sump system.
- Ensure valuable items are stored in an elevated area or off the floor.
- Utilize plastic bins for storage.
- Avoid installing carpet in the basement. Consider using tile, removable flooring, and/or area rugs to minimize the cleanup effort and cost.
- Install a whole home check valve (swing or gate style). If installing, make sure footing drains are disconnected.
  - Determine whether water in the basement is covered by insurance (rider). Ensure the different kinds of backups are covered as appropriate, including sanitary, footing drain, surface water, and municipal source leak.



## GLOSSARY:

**Sump Pump** – A pump used to remove water that has accumulated in the basement.

**Rain Garden** – A rain garden, comprised of native plants and flowers, collects rain water from roofs, driveways, and streets and allows it to soak into the ground, reducing runoff from the property.

**Check Valve/Backflow Preventor** – Valve installed on a sewer line that opens to allow sewage to flow out, but then closes to prevent sewage from flowing in the reverse direction (backing up into the building).

**Footing/Foundation Drain** – Pipes that are installed under the building foundation or basement floor to collect water and drain it away from the building.

**Sewer Lead/Lateral** – A pipe that transports wastewater from the building's plumbing system to the public sewer main.