



Andy Schor, Mayor

Protect Your Basement

Basement Flooding **Cause & Effects**

Helping homeowners
understand the
cause, prevention
and clean up
methods



A Guide Provided by the City of Lansing
If you have a flooded basement call 517.483.4161

Understanding & Basement Flooding Cause & Prevention

Is your basement flooded?

Call the City of Lansing Operations and Maintenance division at (517) 483-4161

OPEN 24 Hours

When a basement floods, it is a source of stress and frustration for everyone involved. The City of Lansing wants to be a resource of information regarding the potential causes of flooding, the effects on your home and how to recover from this sometimes devastating scenario.

The first step is to try and avoid the situation altogether. When you understand what causes a flooded basement, it's much easier to prevent it from occurring. The three most prevalent reasons for flooding are:



Now that you know why some basements flood, the City of Lansing would like to help you prevent flooding with some important tips.



Causes: **Groundwater seepage through the basement walls**

- The single most common contributor to basement flooding
- Caused by heavy rains or snow melts and high groundwater levels around the basement walls
- Look for cracks in basement walls, poorly functioning sanitary sewer drains or footing drains, which can allow water seepage into basement

Prevention:

- Check basement walls for cracks and implement waterproof seals where necessary



Surface runoff

- Results from water entering your home through exterior openings such as window wells and vents or exterior stairwells
- Caused by heavy rains or snow melt and poorly graded ground surface

- Properly seal any exterior openings to your basement including windows and vents
- Keep water away from your home's foundation by installing down spout extensions and grading ground surface away from your home
- Consider raising window wells above anticipated outside water level

Sanitary sewer backup

- Caused by backups in private sewer lines (also known as a lateral)
- Results from blockages caused by roots, grease, trash or cracks in the pipes
- Footing drains are connected to sanitary sewer causing it to become overloaded
- Caused by obstructions in public sewer lines or extreme wet weather



- Have your lateral sewer lines checked on a regular basis for blockages and root damage
- Keep grease and trash out of your sewer lines by properly disposing of them

Four additional options to help prevent sanitary sewer backups during extreme wet weather:



1. Floor drain plug

- Is inexpensive and easy to install
- Float plugs help prevent back ups but allow the drain to function during normal circumstances



2. Standpipe

- Is inexpensive and easy to install
- Functions as a small drain extension that prevents minor flooding
- Standpipes only protect up to their height, normally less than three feet



3. Backup/Check valve

- Is inexpensive
- Is fully automatic
- Stops the main sewer line from backing up into your basement
- Closes the valve when the sewer backs up
- When closed, you cannot use your private sanitary sewer system

4. Sewage ejector pump

- Pumps sewage to the public sewer
- Installed under the basement floor or outside the home
- The most effective and reliable system for preventing sewer backups
- Requires maintenance and electricity to function

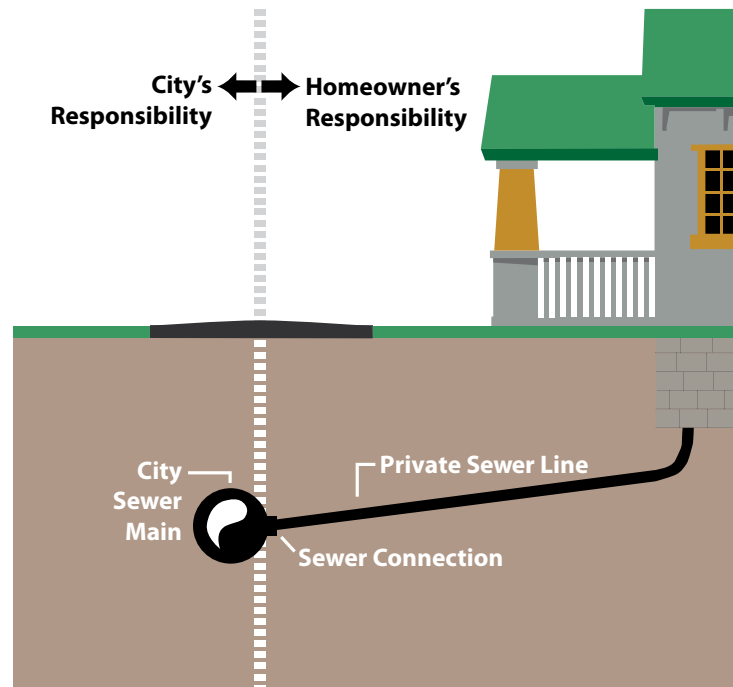
CAUTION: Some of the prevention work suggested may require a plumbing permit. Please check with your local building officials and always consult a professional plumber before installing these preventative measures for basement flooding.

Responding to a flooded basement

Immediately call the City of Lansing Operations and Maintenance Division's 24 hour help line at **(517) 483-4161**

A City sewer inspector will help you diagnose the cause of the flooding. If the problem is found in the public sewer, the Operations and Maintenance Division will perform any necessary repairs to the sewers as soon as possible.

If the problem is found within the private sanitary sewer line between your home and the public sewer you may choose to contract with a private company to assist with clean up, service lead cleaning or repair.



Sewer backups can lead to illness, damage to your home and valuables, and risk of electrocution. Before entering your flooded basement, take care to check for exposed wires and gas leaks.

Now it's time to get your basement back in order. When cleaning your flooded basement, do:

- **Contact your insurance company**, prior to initiating clean-up.
- **Use protective equipment.** Protect yourself from exposure by wearing protective equipment including gloves, boots and eye protection. Be careful not to spread the contamination to other parts of your house by removing these items before leaving the basement.
- **Clean and disinfect the area as soon as possible.** Disinfect all areas and equipment that come into contact with flood water with a solution of eight tablespoons of liquid chlorine bleach per gallon of water. This will remove odors and bacteria.
- **Discard small items exposed to sewage.** Take photographs of ruined items for insurance claim purposes. Move undamaged items away from the sewage to avoid spreading the damage.
- **Remove damaged drywall within 24 hours.** This will help eliminate the growth of mold. Drywall can retain moisture for a long time.



DO NOT:



- **Don't allow children to play in the basement** until it has been thoroughly sanitized.
- **Don't track sewage into other areas of the house.** Do not carry or place cleaning gear and equipment in other parts of the house without sanitizing.
- **Don't use heat to dry building interiors.** This may cause mildew and additional damage.
- **Don't clean electric appliances and/or ductwork yourself.** This exposes you risk of electrocution. Call a qualified service technician to clean these for you and inspect all appliances before using them again.

For additional information go to the Ingham County Health Web site at <http://hd.ingham.org/environmental-health/other-services/flooding-in-homes.aspx>

Usually throw away: foam rubber, large amounts of carpeting, books & other paper materials.

Always throw away: food, makeup and other cosmetics, medicine/medical supplies, stuffed animals, mattresses and pillows, upholstered furniture, carpet padding & cardboard

City Responsibility

Municipal Liability for Sewage Disposal System Events

When is the City liable for damages? Act 170 of 1964, as amended by Public Act 222 of 2001, generally provides municipalities, such as the City of Lansing, with governmental immunity from basement flooding damages, unless the property owner can demonstrate all of the following:

- The City of Lansing or your local governmental unit is the appropriate governmental agency.
- The public sewage disposal system had a defect.
- The City of Lansing or your local governmental unit knew about the defect, or in the exercise of reasonable diligence should have known about the defect.
- The City of Lansing or your local governmental unit having the legal authority to do so, failed to take reasonable steps in a reasonable amount of time to repair, correct, or remedy the defect.
- The defect was a substantial proximate cause of the event and the property damage or physical injury.

The public sewer system is not considered defective if the sewage backup was caused by a rain event greater than what the sewage system was designed to carry.

If you believe you have fulfilled these eligibility requirements, request a claim form from the City:

City of Lansing Public Service Department

**124 W. Michigan Ave. No. 732
Lansing, MI 48933-1694**

You can also call the City's Claims Coordinator at
(517) 483-4818

Your claim form must be submitted with all requested information to the City's Claims Coordinator within 45 days of the discovery of the damage.

Once the form is processed, the City will do a complete investigation into your claim and damages. If requested, you must allow the City an opportunity to inspect the damaged property or investigate the physical injury. Once the investigation is complete, you will be notified of the findings.

Are you insured?

Homeowner's or renter's insurance can protect you against some flooding damages, but not all. Understanding your insurance policy is very important at a time like this. Read your policy carefully and if you have questions, contact your insurance agent.

Policies vary among insurance carriers. Determine whether adding flood damage protection to your insurance would be a good decision for you. Without this insurance, you will be responsible for all costs associated with most flooding damage and repairs.



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City of Lansing Public Service Department

Available 24 hours a day

(517) 483-4161

www.lansingmi.gov