Winnipeg
Water and Waste Department

PROTECT YOUR HOME FROM BASEMENT FLOODING

HAVE YOU DONE EVERYTHING YOU CAN?

No matter where you live in Winnipeg, your home can be at risk of basement flooding. Heavy rainstorms that fall over short periods of time can overwhelm any city sewer system. Overloaded sewers can back up through house sewer lines and flow into basements that aren't protected. Even if your neighbourhood has never experienced problems with basement flooding, your home can still be at risk. In heavy storms, the total amount of rainfall, and how fast it falls, can vary greatly from neighbourhood to neighbourhood across the city. As an example, the rainstorm of July 16-17, 2005, dumped up to 104 millimetres (4 inches) of rain within 2.5 hours in Fort Richmond, while East Kildonan received half that amount.

To protect your home from basement flooding, take the following steps:

- Install a backwater valve and sump pit drainage system
- Check and maintain your backwater valve and sump pit drainage system regularly
- Improve drainage around your house

INSTALL

A BACKWATER VALVE AND SUMP PIT DRAINAGE SYSTEM

If your home is not already equipped with these features, install a backwater valve and a sump pit drainage system.

BACKWATER VALVE

A backwater valve is a device that prevents sewage in an overloaded main sewer line from backing up into your basement. The valve automatically closes if sewage backs up from the main sewer. A properly installed backwater valve must be placed so that sewage backup will be stopped and not come out through other outlets in your basement, such as sinks, toilets, showers, and laundry tubs.

SUMP PIT

A sump pit drainage system includes a sump pit, a sump pump and a pump discharge pipe. The sump pit, set into the basement floor, collects water from the weeping tiles around your basement. The pump pushes the water outside your house through the discharge pipe. With a backwater valve alone, weeping tiles connected to the sewer line can't drain when the backwater valve closes, causing water to overflow into your basement from the floor drain.

Place your sump pump discharge pipe so that it drains somewhere onto your property where water can be absorbed, such as your lawn or flowerbed. **Do not allow water from your sump pump to drain directly onto neighbouring properties, lanes, sidewalks, boulevards, streets, or into your home's floor drain – this is illegal.**

You will need a permit and inspection to install a backwater valve and sump pit. Since part of the basement floor will be dug up and since proper placement of these items is important, we recommend that you use a licensed plumbing contractor.

Check your Yellow Pages for reputable contractors, and ask friends and neighbours for referrals. We recommend that you…

- Get at least three estimates
- Ask for and check contractor references
- Call the Better Business Bureau for a reliability report on contractors
- Make sure your contractor obtains the necessary information and permits by calling the City's Planning, Property and Development Department at 986-5300

IT'S A LAW.

New homes built since 1979 are required to have backwater valves; new homes built since 1990 are required to have sump pits with pumps. This regulation applies both to houses built in new subdivisions and to new houses in older neighbourhoods.

CHECK

AND MAINTAIN YOUR DRAINAGE SYSTEM REGULARLY

Here are some things to do to make sure that your drainage system continues to operate properly. Check the operating instructions for more detailed information and safety guidelines, or ask your plumber to explain the details of your system to you.

BACKWATER VALVE

- Make sure that you can get to the valve at all times.
- Check the valve regularly and remove any material that may prevent the valve from operating properly.

SUMP PIT

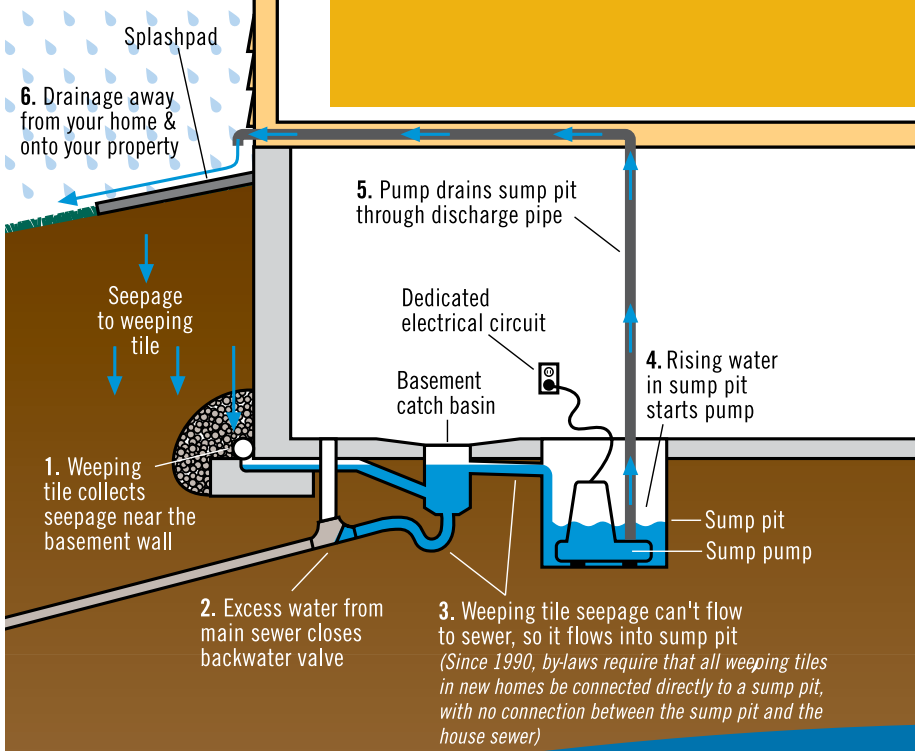
- Clean the pit each year after freeze-up. Weeping tile drainage may carry small amounts of soil, sand and debris into the pit from around your basement.
- Some water may remain in the pit and cause a musty smell if it sits for a long time. If so, you can flush the pit by adding fresh water until the pump removes the stale water.

SUMP PUMP

- Check and test your pump each spring before the rainy season begins, and before you leave your house for a long time. Pour water into the pit to trigger the pump to operate.
- Remove and thoroughly clean the pump at least once a year. Disconnect the pump from the power source before you handle or clean it.
- Check the pit every so often to ensure it is free of debris. Most pumps have a screen that covers the water intake. You must keep this screen clean.
- Check and clean your catch basin trap.

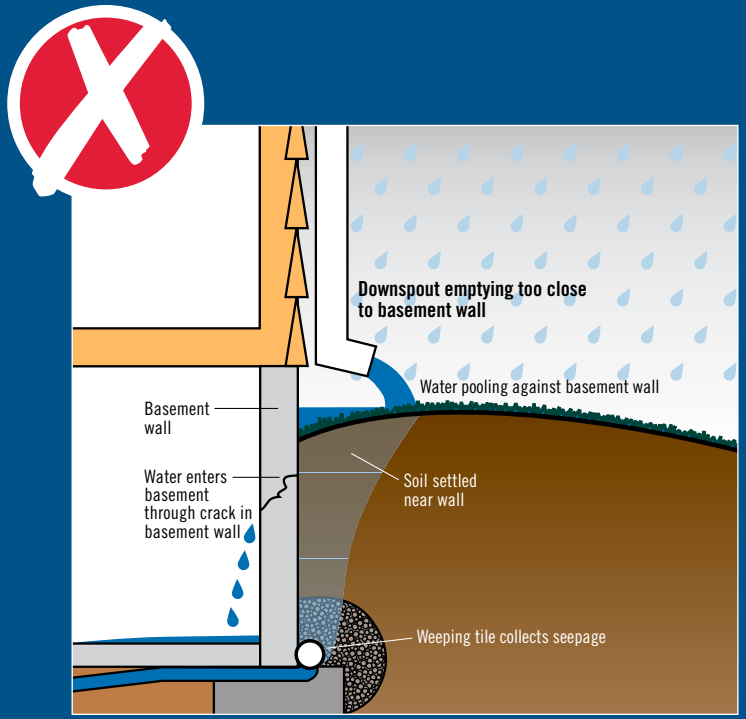
SUMP PUMP DISCHARGE PIPE

- Check the place where the discharge pipe leaves the house. If the pipe is discharging right against the basement wall, the water will drain down into the weeping tiles and continue to recycle through the system.
- Check the discharge point regularly to make sure that nothing is blocking the flow.
- Call us for help at 986-5858 if your pump runs frequently in the winter, and ice is causing hazardous conditions.

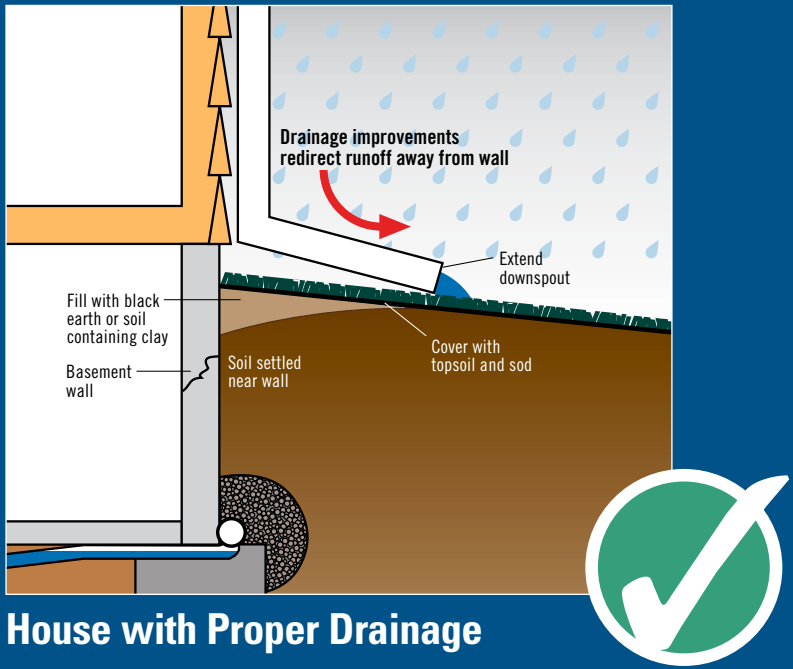


Proper Sump Pump Installation for Homes Built Before 1990

Install Check Improve Reduce



House with Poor Drainage



House with Proper Drainage

IMPROVE

DRAINAGE AROUND YOUR HOUSE

- Build up the ground around your house so that water flows away from your basement walls. Also examine sidewalks, patios, decks, and driveways. These can settle over time and cause water to drain back towards your basement walls.
- Extend downspouts so that water flows away from your house and doesn't pool next to the basement walls or basement windows. If your downspouts are connected to your home's sewer system, disconnect them.
- Clean debris from eavestroughs regularly. If they overflow even when clean, replace them with larger size eavestroughs and downspouts.

PROPER DRAINAGE HELPS TO...

- Reduce the amount of water flowing to your home's sewer system and to the main sewer system, and lessen the risk of sewer backup.
- Reduce water seepage into your home through basement windows and cracks in your basement walls.
- Extend the life of your sump pump by reducing the amount of work it has to do.
- Keep the moisture content of the soil around and under your house stable to reduce the chances of cracking and shifting. If water pools next to your basement, it can make its way to the footings that support the basement walls. The increased moisture may cause the soil to swell and the footings to heave.

Be sure your drainage improvements do not cause drainage problems for your neighbour or affect the grading near the property line. This could be against the City's Lot Grading By-law. If you have questions about your planned drainage improvements or about the Lot Grading By-law, please call 986-5858.

THE CITY IS ALSO TAKING ACTION TO REDUCE THE RISK OF BASEMENT FLOODING

Since 1977, the City has spent more than $290 million improving the sewer system. The protective steps that YOU can take, along with these sewer improvements, greatly reduce the risk of sewer backup.

For more information on the steps you can take to reduce your risk of basement flooding, contact our Customer Service Centre by phone at 986-5858 or by email at water@winnipeg.ca

For information on installing backwater valves and sump pits, call the Planning, Property and Development Department at 986-5300, or visit www.winnipeg.ca/ppd/brochures.stm

In case of a basement flooding emergency, call our Customer Service Centre:
986-5858 during regular business hours, Monday to Friday, 8:30 am to 4:30 pm
986-2626 after regular business hours

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