



A Guide to Flooding Prevention & Recovery



Halton Region provides this comprehensive guide for residents to increase awareness about flooding. This guide includes what you need to know about the risks and how to prepare in order to reduce the impacts of floods to your property. This guide also provides you with information on how to respond during a flood event and steps you can take to clean up should you be impacted by a flood, including measures to protect your health. There is also a valuable checklist at the end of the booklet to help guide you through the actions you can take to protect your home, yourself and your family in the future. For further information, please visit [Halton.ca/flood](https://www.halton.ca/flood) or call 311.

If there is a potential for flooding or if a flood occurs, listen regularly to the radio or television or check online for the latest community information.

Flood facts

- Floods are one of the most common hazards in Canada.
- A heavy rainfall can result in flooding, particularly when the ground is still frozen or already saturated from previous storms.
- Severe storms can cause flash flooding with little or no advance warning.
- All creeks experience flooding at one time or another. The potential for flood damage is high for houses and businesses constructed on low-lying, flood-prone lands.
- Over the past 60 years, average temperatures and average rainfalls in Canada have both increased. Together these have led to more extreme weather, such as severe storms and floods.

[Halton.ca/flood](https://www.halton.ca/flood)

 [@RegionofHalton](https://twitter.com/RegionofHalton)

 [Region of Halton](https://www.facebook.com/RegionofHalton)





Dial 311

for Halton Government Services

Available in more than 170 languages

Dial 911

for Emergencies

Emergency contact information

Dial 911 only in case of emergency

Halton Region

Dial 311 (within Halton) for updated information and questions or visit **Halton.ca**

Police

**Halton Regional
Police Service**
905-825-4777

Local Municipalities

City of Burlington
905-335-7600

Town of Halton Hills
905-873-2601

Town of Milton
905-878-7252

Town of Oakville
905-845-6601

Local Fire Departments

Burlington
905-637-8207

Halton Hills
905-877-1133

Milton
905-878-9251

Oakville
905-845-7114

Utilities

Burlington Hydro
905-332-1851

Halton Hills Hydro
519-853-3701

Milton Hydro
905-876-4611

Oakville Hydro
905-825-9400

Union Gas

1-877-969-0999 *(emergency)*

1-888-774-3111 *(non-emergency)*

Community Support

Canadian Red Cross

Burlington
905-637-5664

North Halton
905-875-1459

Oakville
905-845-5241

**Salvation Army
Community Church**
905-681-0808

United Way

Burlington
905-635-3138

Halton Hills
905-877-3066

Milton
905-875-2550

Oakville
905-845-5571

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Types of flooding & flooding prevention

Understanding your home's water drainage system

Water (both storm and wastewater) is collected from your home and typically drains away to the storm water or wastewater systems on your street.

The storm water system is designed to collect rain and melted snow (i.e. clear water) from streets and properties and direct this flow to a nearby pond, creek or lake.

The wastewater system is designed to collect water from toilets, sinks, showers and laundry facilities and direct it to wastewater treatment facilities where it is thoroughly treated.

Who is responsible for what?

Halton Region is responsible for the wastewater system.

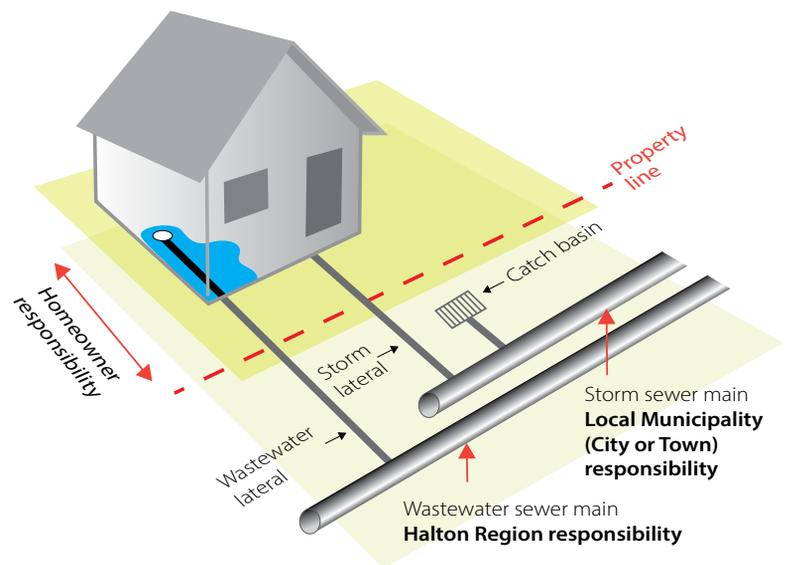
The Local Municipality (Town or City) is responsible for the storm water system.

Homeowners are responsible for the lateral pipes from the building to the property line and ensuring proper water drainage around the home.

Types of flooding

If you've experienced flooding, it's important to know what type of water is in the basement and understand what caused it so you know what steps to take to help prevent it from happening again. The main types of residential flooding are:

1. **Storm water flooding** (also referred to as overland): clear and typically does not contain any odour
2. **Wastewater backup**: greyish in colour and typically has an odour
3. **Combination of both**



Home with separate connections to the storm and wastewater systems

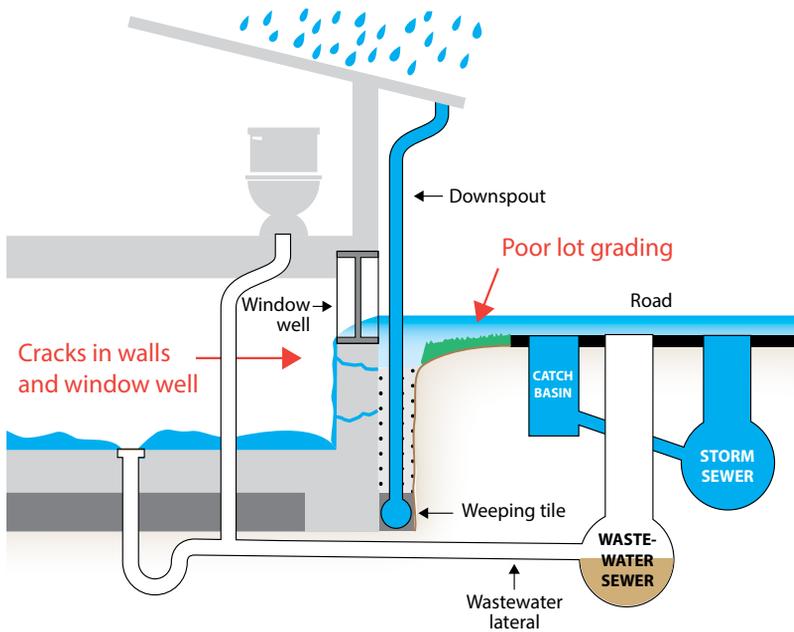
Possible causes of basement flooding

1. Storm water flooding

(also referred to as overland flooding)

Storm water flooding can occur when there is heavy rainfall or significant melting snow resulting in water pooling around the foundation of your home and seeping in through cracks or window wells.

How storm water can enter your home and cause flooding



Reduce the risk

- Check for and reduce leaks in walls, floors and windows or foundation.
- Improve lot grading, making sure that the ground slopes away from your exterior walls.
- Ensure borders around flowers and shrub gardens do not create dams that retain water next to the house.
- Clean leaves and other debris from eaves troughs and downspouts to ensure proper drainage.
- Direct the flow of water at least two metres (six feet) from your walls or to a drainage swale.

Glossary of Terms

Wastewater lateral: The pipe through which all the wastewater from a house (e.g. toilet, sink, shower, washing machine) exits the home plumbing system and enters the wastewater sewer.

Weeping tile: A perforated piping system that surrounds the basement footing. It is designed to receive water that has seeped down the foundation walls and direct it away from the home.

Sump pump: A mechanical device used for removing water or wastewater from a sump pit.

Sump pit: A tank or pit that holds the sump pump and collects stormwater drainage from the weeping tile system.

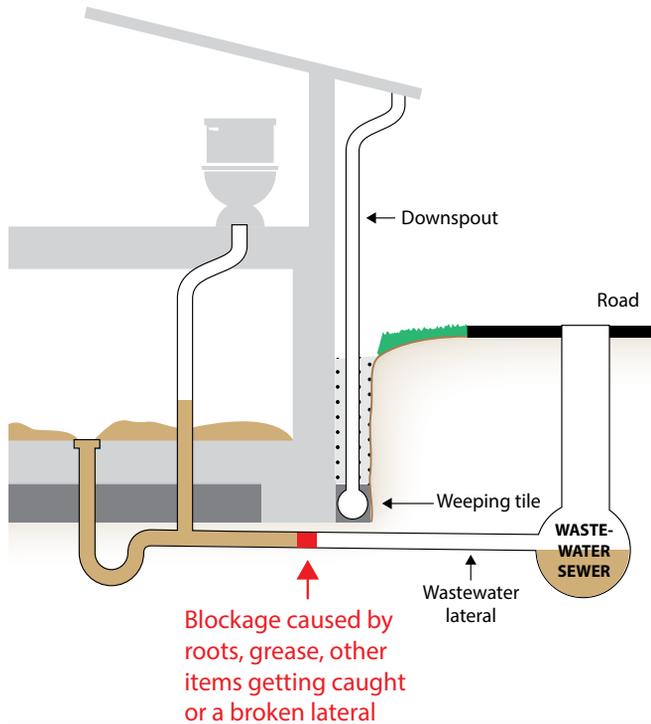
Backwater valve: A mechanical device that prevents sewage in an overloaded sewer from backing up into your basement. The valve allows wastewater to flow from your home to the sewer main during normal use. It will automatically close if wastewater backs up from the sewer main into your home (reversal mode), protecting the basement from the potential of flooding.

Swale: A grassy, ditch-like depression used to direct stormwater flows.

2. Wastewater backup flooding

Wastewater backup flooding typically occurs because of a blockage in the wastewater lateral leading to the sewer. Most often the blockage is caused by tree roots. On occasion it can be due to solidified grease, paper or other items getting caught in the lateral. On rare occasions, a wastewater backup is the result of a broken lateral, which can also cause a blockage.

How a wastewater backup can occur



Kitchen grease, fats and oils should be discarded in your GreenCart. Although convenient items such as baby and toddler training wipes are labelled as flushable, they commonly cause blockages.

For more information about items that should not go into your sink or toilet visit Halton.ca or dial 311.

Reduce the risk

- Have a drainage contractor visit your home to inspect your lateral with a Closed Circuit TV (CCTV). If you have a history of tree root blockages in the lateral, consider hiring a lining professional to re-line the pipe to prevent future blockages.
- Never pour kitchen grease, fats or oils into your house drains because they may solidify in your plumbing system. Also, do not put objects down the toilet or drains that your plumbing system was never intended to handle.

3. Combination of both storm and wastewater backup flooding

The most common type of flooding in Halton, and in other municipalities across Ontario, is a combination of both storm and wastewater entering a basement. This type of flooding occurs when there is an overload on both the storm and wastewater systems due to heavy rainstorms or large amounts of melting snow in the spring.

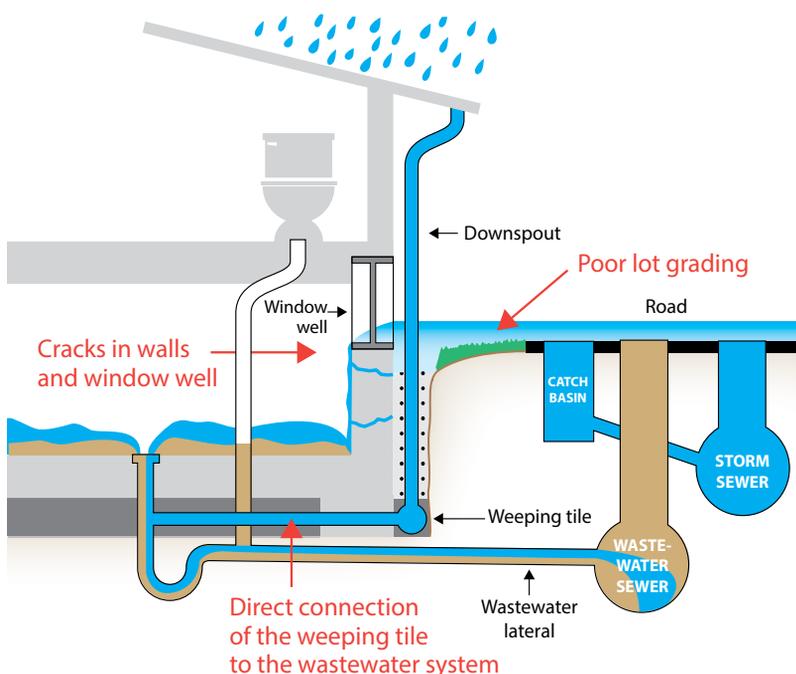
Combination flooding occurs more frequently in older neighbourhoods where houses were built before 1975 when it was common practice to connect weeping tile and downspouts directly to the wastewater system. However, homes in newer neighbourhoods can also experience this type of flooding.

When this type of flooding occurs, storm water can seep into your house through foundation cracks and window wells, and at the same time rain water can enter the wastewater system through improper connections such as the downspout or weeping tile. This may result in a wastewater backup because the system is overloaded.

Reduce the risk

- Improve your lot grading. Make sure the ground slopes away from exterior walls.
- Ensure downspouts, sump pumps, window well drains and driveway drains are disconnected from the wastewater system.
- If your weeping tile is connected to the wastewater system, disconnect it and install an automatic sump pump. You will need an inspection from your Town or City to ensure the overflow is discharging to an appropriate area.
- Install a backwater valve on the wastewater (sanitary) pipe inside the basement. The weeping tiles must first be disconnected from the wastewater system.
- Regularly inspect and maintain your home's flood-prevention devices (i.e., backwater valves, sump pumps, floor drains).

How combination flooding can occur



Water drainage systems for homes built in the mid-1970s

Prior to the mid-1970s, it was common practice to connect weeping tile and downspouts directly to the wastewater system. These connections can overload the wastewater system and should be updated to help prevent basement flooding. In 1975, Ontario's Building Code was introduced and required storm water collected from homes to be discharged to a separate storm water system.

Figure 1 below shows improper storm water connections in these older homes. Figure 2 shows how using basement flooding prevention devices can improve improper connections and help prevent future flooding.

Figure 1: Improper storm water connections (prior to mid-70s)

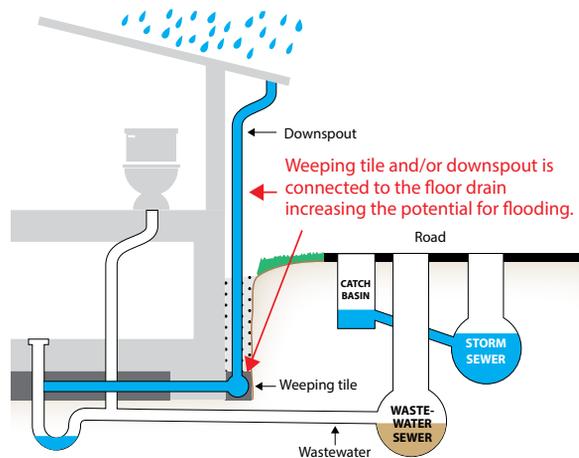
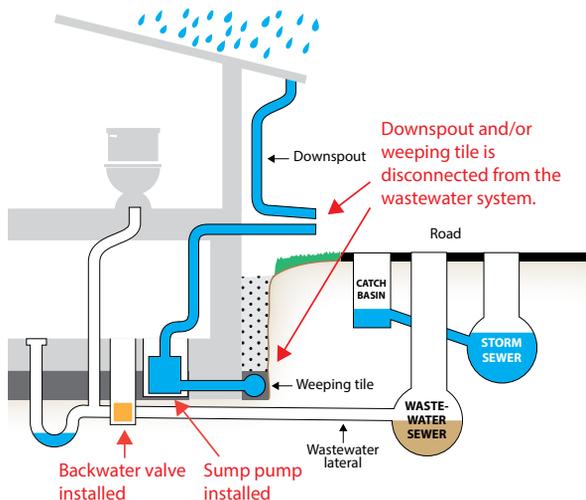


Figure 2: Proper storm water connections



Halton Region's Basement Flooding Prevention Subsidy Program

Halton Region is helping residents reduce their risk of basement flooding through the one-time Basement Flooding Prevention Subsidy Program.

This program helps all residents whether you have a history of wastewater backup flooding or have not experienced flooding but would like to correct improper storm water connections and install a backwater valve.

Learn more about this program at Halton.ca/basementflooding

Visit Halton.ca/basementflooding or dial 311 for more information about the wastewater system and to learn more about what you can do to prevent basement flooding in your home.

Backwater valves

A backwater valve is a device that prevents wastewater in an overloaded sewer (known as surcharging) from backing up into your basement. The valve allows wastewater to flow from your home to the wastewater main during normal use. It will automatically close if wastewater backs up from the sewer main into your home (reversal mode), and is designed to protect the basement and reduce the risk of potential flooding. The backwater valve also allows the flow of free air and outflow of wastewater for normally open valves.

Older backwater valves typically employed the normally closed type (Figure B). If there is no wastewater produced from a home, the flapper valve is closed under gravity, preventing backwater effects. However, these devices have been known to experience more maintenance issues, such as paper being caught in the flapper, holding it open. Therefore, this type of valve is no longer permitted under the Ontario Building Code for use in homes.

The current option is a normally open backwater valve. These valves remain open during normal use of water in the home and typically require less maintenance. Newer devices, such as the Mainline Fullport unit shown in Figure A, have the additional benefit of a clear top so that you can view the operation of the backwater valve. It is also equipped with an easily accessible cleanout. This is required in case there is a need to clean or clear your lateral from tree roots or other blockages.

Location of backwater valves

Backwater valves are typically found in the basements of homes. There are several key advantages to having a backwater valve located in the home, including:

- Easy access
- Easier maintenance
- Homeowners can see if surcharging (wastewater backing up) occurs
- Lower cost to install
- Lower operating and maintenance costs

Types of backwater valves

There are typically two types of backwater valves, “normally open” or “normally closed”. The images below represent the two types.

Figure A (recommended type)



Figure B (older—no longer recommended)



Figure A shows a normally open backwater valve and Figure B shows a normally closed backwater valve.

Maintenance

Regular maintenance of your home drainage system can often be the difference between staying dry and being flooded. It is good practice to evaluate the condition of your system – inside and out, on a regular basis. If you find a problem, make fixing it a priority.

Below is a checklist of what to do for backwater valve maintenance:

- Visually check the valve.
- Open the top and clean out any debris, if needed.
- Check the flapper for free movement up and down.
- If uncertain of a valve's condition, contact a qualified plumber or drainage contractor.

For more information regarding backwater valves and basement flooding prevention, visit Halton.ca/basementflooding.

Remember:

If you are aware of surcharging, or wastewater backing up from the sewer main, do not use your water otherwise you risk flooding. Once surcharging has subsided, you may restore regular water use.



Before a flood

Emergency planning—Know the risks, make a plan, get a kit

Are you prepared? It's never too late. Emergencies can happen at any time and your best defence is to be prepared.



Are you prepared?

1 Know the risks

Halton Region is vulnerable to a variety of natural and human-caused hazards. Make sure you and your family members know what the hazards and risks are in the area you live. Even if you feel your community has a low risk of flooding, remember that anywhere it rains, it can flood. Just because you haven't experienced a flood in the past, doesn't mean you won't in the future. Floods occur because of a number of factors including rainfall, topography, flood-control measures, creek-flow, old construction practices and new construction and development.

2 Make a plan

Make sure everyone in your family knows what to do before, during and after an emergency such as a flood. Hold a family meeting to discuss how you can best prepare for an emergency. Have a plan. If you live alone, develop a plan for yourself with links to neighbours and friends. Keep a copy of your plan in a safe place, such as your Family Emergency Go-Kit. Photocopy your plan and keep it in your car and/or at work.

3 Get a kit

Assemble a 72 hour Go-Kit to use during an evacuation of your home or community. Make sure everyone living in the home knows where to find the Go-Kit.

Halton Region also has pre-assembled kits available for purchase. Dial 311 or visit Halton.ca to find out more.

A few simple steps you can take to prepare your home for a flood

- Elevate the furnace, water heater and electric panel in your home if you live in an area that is prone to flooding.
- Do not store your important documents in the basement. Keep them at a higher level, protected from flood damage.
- Keep floor drains clear of obstructions.

A 72 hour Go-Kit includes:

- Flashlight
- Battery-operated or crank radio
- Spare batteries (for flashlight and/or radio)
- First-aid kit
- Candles and matches/lighter
- Extra car keys and cash
- Important papers (copies of identification, insurance policies)
- Non-perishable food and bottled water (as much as your family can manage to carry)
- Items needed to open food (such as a manual can opener)
- Clothing and footwear
- Blankets or sleeping bags
- Toilet paper and other personal hygiene items
- Medication (especially prescription—72 hours worth at least)
- Eyewear (glasses/contacts)
- Whistle (to attract attention, if needed)
- Playing cards (or other quiet games/toys)
- Paper/pencils/pens
- Map of your community (for locating shelters)
- A copy of Halton Region's *Personal Emergency Preparedness Guide*

To prepare for a flood, you may want to include some additional protective equipment in your Go-Kit including:

- protective clothing to fully cover skin
- hard hat
- gloves
- masks
- protective eyewear
- rubber boots (puncture-proof and waterproof are best)

Always have your cell phone charged and in a location that makes it easy to grab if you must evacuate your home.



Insurance considerations

Water-related damage from a flood can be extensive and the subsequent repairs could be very expensive. Water risks can come from both inside and outside your home. According to the Insurance Bureau of Canada (IBC), increasingly severe weather means that basement flooding and water damage are becoming more common. IBC offers the following tips when considering your coverage.

- **Sudden and accidental bursting of plumbing pipes and appliances** is covered by all residential policies. However, damage may not be covered when freezing causes the escape of water.
- In general, **water entering a home from overland flooding is not covered.** Overland flooding usually occurs when bodies of water, such as creeks, dams and other watercourses, overflow onto dry land and cause damage. Overland flooding and seepage can't be covered by home insurance because it is only a risk for the small percentage of the population who live in a flood plain. Since the purpose of insurance is to spread risk among many policyholders, flood insurance for those at risk would be unaffordable.
- Water damage in a basement due to a sewer backup is only covered if specific **sewer backup coverage** has been purchased.
- In certain circumstances, homeowners who are unable to return home due to insurable damage are entitled to additional living expenses (**this coverage is generally not available if an evacuation becomes necessary as a result of overland flooding**).
- If you do experience flood damage, you will need to provide a list of lost or damaged items as part of your insurance claim. Review your insurance policy so you understand what items to list. If you had a household inventory or video before the disaster, retrieve it for the insurance adjuster.

For more insurance information and helpful how-to videos, visit getintheknow.ibc.ca.

Take a household inventory or video so you can use it as part of your insurance claim if you ever experience flood or other damage in your home.

Talk to your insurance representative to make sure you have appropriate coverage, because basement flooding and water damage are becoming more common.

During a flood

What to do during a flood

Flooding can sometimes happen quickly and may affect just a few or many homes. Monitor your local news for weather updates and special announcements from local officials. You can also check Halton.ca or follow us on Twitter or Facebook.

Reducing potential damage when there is a threat for flooding

If heavy rains are forecasted for your area and the potential for flooding exists, the following actions can help reduce property damage to your home:

- Clear drains, gutters and downspouts of dead leaves and other debris.
- Move furniture, electronics and items of sentimental value out of basements and lower levels of the home or raise them off the floor.
- To reduce the chances of rugs getting wet, roll them up and if possible, store them on higher floors.
- Ensure sump pumps and backwater valves are working properly. If a sump pump has a battery backup, ensure the batteries are fresh and replace the batteries as required.
- Make sure basement windows are closed.

Potential hazards in flooding conditions

Flooding conditions can create hazardous situations both in and around your home. Here are some potential hazards to be aware of:

- Standing water may be electrically charged by indoor electrical systems and underground or downed power lines. Keep yourself, children and pets away from standing water and downed power lines.
- Floodwaters can move quickly and pose a risk of drowning. Protect your safety and do not drive or walk through floodwaters.
- Building structures can be affected and become unsafe. Leave your home if there are any signs of potential foundation and structural damage, including to porch roofs and overhangs.
- Floodwaters often erode roads and walkways. Roads may have weakened and could collapse under the weight of a car. Do not travel in flood impacted areas.
- Assume that everything touched by floodwaters is contaminated. Keep yourself, your family and pets away from flooded areas.
- Flood waters can contain sewage, chemicals and debris like broken glass. Do not enter a flooded space unless you are wearing appropriate personal protective equipment and clothing.

Evacuation

For your protection, you may decide it is necessary for you to evacuate your home or an area impacted by flooding. You may also be officially notified to evacuate. This notification may occur in several ways including:

- by phone through Halton Region's enhanced Community Notification Service (eCNS)
- a weather alert
- social media
- local media
- officials going door-to-door

If you expect you might need to evacuate during an emergency, keep phone lines open for use by emergency workers and monitor local radio, TV, and the Internet for emergency instructions and current information. Also be sure to follow instructions from officials and evacuate immediately if asked. Travel only on routes specified by officials—a shortcut could take you to a blocked or dangerous area. If you have time and can do so safely:

- Take your Go-Kit (refer to Before a Flood for more details), medications, and needed supplies with you in the event of an extended evacuation.
- If it is safe to do so, shut off water, gas and electricity in your home. If not, evacuate your home but do not go back inside until a utility company has confirmed it is safe.
- Check to see if your neighbours require assistance.

Emergency Evacuation Centres

In some cases, an emergency evacuation centre may be set up to provide shelter and food to people affected by the flood. If so:

- Leave a note if you have time (in a mailbox if you have one) telling others when you left and where you went.
- If you are evacuated, register with the authorities at the evacuation or reception centre so you can be contacted and reunited with your family and loved ones.
- If you are going somewhere other than a designated centre, register with the centre, notifying them of your whereabouts. This helps to create an accurate record of flood victims.

Keep up-to-date with the latest information:

Halton.ca/flood

 [@RegionofHalton](https://twitter.com/RegionofHalton)

 [Region of Halton](https://www.facebook.com/RegionofHalton)

Sign up for weather alerts. Get the latest forecasts and hazardous weather conditions at weather.gc.ca.



If you remain in your home

Remember that flooding can affect your safety and possibly your health. Take precautions to prevent illness and injury before you enter any area that has been flooded.

Helpful hints:

- Assume that everything touched by floodwaters is contaminated. Stay clear unless your skin is covered and you are wearing protective clothing such as coveralls, rubber boots, gloves and masks.
- Keep children and pets away from flooded areas and contaminated items.
- Check for foundation and structural damage and make sure all porch roofs and overhangs are supported. If you suspect any damage, leave your home until a professional such as a building inspector or structural engineer has confirmed it is safe to re-enter.
- If you notice any gas odours, evacuate your home and contact the gas company or fire department.
- Remember that flood waters can contain sewage, chemicals and debris like broken glass. Do not enter the space unless you are wearing appropriate personal protective equipment and clothing such as a hard hat, gloves, masks, protective eyewear and rubber boots (puncture and waterproof boots are best).
- Only if it is safe to do so, turn off electricity in your home at the main breaker or fuse box.



After a flood

What to do first

- Report your flood to Halton Region by dialing 311. Regional staff will advise you of what actions you should take.
- Call your insurance company as soon as possible. Report any damage caused by the flooding. They will also advise you on how to proceed.
- Call in professionals such as a damage restoration company to have the area cleaned properly.
- Where possible, take measures to dry your home quickly to prevent further damage and mould growth. Use fans and dehumidifiers.

Initial safety precautions

Flooding can affect your safety and your health. Take precautions to prevent illness and injury.

- If you had to evacuate your home, stay tuned to your local radio or television station or dial 311 to find out when it is safe to return home. You can also visit **Halton.ca/flood** for updates.
- You will be notified if the municipal drinking water is unsafe to drink.
- When you do return home, go with someone else and carry a cell phone.
- Don't drive or walk through floodwaters.
- Stay away from downed powerlines.
- Assume that everything touched by floodwaters is contaminated.
- Keep children and pets away from flooded areas and contaminated items.

Before re-entering your home after a flood

- Check for foundation and structural damage. Check that all porch roofs and overhangs are supported.
- If you are unsure about the safety of your home, do not go inside. Contact a building inspector or structural engineer for advice.
- Do not attempt to reconnect the electricity, natural gas, telephone or TV cable yourself. Call your service provider for assistance.

How to locate flood damage restoration companies

Institute of Inspection Cleaning and Restoration Certification

iicrc.org

Better Business Bureau Central Ontario

bbb.org

Search for "fire and water damage" in the accredited business directory.

Yellow Pages Directory

yp.ca/business

Search for "flood damage" after you enter your municipality.

Ontario College of Trades

collegeoftrades.ca

Find out the qualifications and standings of trade professionals who are members of the College.

Clean up

Before you clean up

Flood waters can contain sewage, chemicals and debris like broken glass. Wear clothing that covers your skin along with appropriate personal protective equipment including:

- hard hat
- gloves
- masks
- protective eyewear
- rubber boots (puncture-proof and waterproof are best)

If it is safe to do so, turn off the electricity at the main breaker or fuse box using a dry piece of wood. If you cannot, do not enter the space and contact your hydro company for assistance.

Do not use electrical appliances that are wet or may have been affected by flood water until a qualified electrician has inspected them.

Do not use anything requiring water in your home (e.g. toilets, showers, washing machine and sinks) until the flood water from your house has been removed.

Cleaning up a home that has experienced extensive water damage or has been flooded with sewage-contaminated waters may require a qualified flood damage restoration company. Refer to page 17 for information on how to locate one.

First steps

Take measures to prevent further damage to your home and belongings:

- **Remove standing water.** Remove standing water with pumps or pails, a wet/dry vacuum and rags and/or towels. If you experience severe water levels in your basement, contact a professional damage restoration company to help drain the water slowly to prevent structural damage.
- **Make decisions about what to keep and what to throw away.** Remove as much as you can out of the rooms that were flooded as quickly as possible to help prevent water damage and mould. Some belongings, especially those that are contaminated with sewage, or those that cannot be quickly dried and effectively cleaned, may not be salvageable.
- **Remove soaked and dirty building materials and debris,** including wet insulation and drywall.
- **Quickly and thoroughly dry and dehumidify your home.** Ventilating the area with outdoor air and fans will help. A dehumidifier will work to remove moisture from the home.



For homes on private well water supplies and septic systems

If you suspect that your well water supply may be contaminated by flood waters, use an alternate source of drinking water until you can obtain test results indicating that your well water is safe for drinking.

To test your well water, visit one of Halton Region's well water testing depots. Visit [Halton.ca/wellwater](https://www.halton.ca/wellwater) for more information, locations and hours of operation.

Depending on the extent of flooding to your property, you should consider having your septic system inspected by a licensed contractor prior to reuse.

Surface cleaning

- **Clean all surfaces and belongings.** Wipe or scrub away dirt and debris using a solution of unscented detergent and water.
- **Disinfect all surfaces and belongings.** Be sure they have already been thoroughly cleaned. Use a disinfectant such as household bleach and carefully follow the directions for use on the product label. Be sure to wear appropriate personal protective equipment and ventilate the area.

What to do with household items

Items that have been contaminated by sewage or that have been wet for a long time and cannot be washed and disinfected should be discarded.

Carpets and upholstered furniture that can be salvaged may need to be professionally cleaned and dried. If these items are sewage-soaked, they should be discarded.

Wet drywall and insulation should be removed to allow studding to dry.

Washable clothes can be salvaged.

Appliances

- A qualified service technician should verify the safety of any appliance that has been affected by flood water before it is used.
- Thoroughly clean and disinfect appliances that can be salvaged.
- Appliances that cannot be salvaged should be discarded.

Medicines, cosmetics and other toiletries

Discard these items if they have been in contact with flood water.

Visit Halton.ca/wastetools for proper disposal.

Documentation

- Store all valuable papers that have been damaged in a freezer until they are needed. After your clean-up, consult your lawyer to determine whether flood-damaged documents, or just the information in them, must be retained.
- Record details of flood damage by photograph or video if possible.
- Register the amount of damage to your home with your insurance agent.
- Salvage books, photographs and papers by slow, careful drying.



DANGER! Do not mix bleach and products that contain ammonia. Check product labels before use.

Food safety

The following foods should be considered unsafe and discarded:

- Food in boxes, bags, paper and plastic wrap
- Food and drinks in bottles, plastic containers and jars, including home preserves (the area beneath the lid cannot be properly cleaned and disinfected)
- Fresh foods such as meats, fruits, vegetables, and eggs

Commercially canned food without dents, leaks and bulges are considered safe if properly cleaned and disinfected.

Thoroughly clean and then disinfect dishes, eating and cooking utensils and food contact surfaces. Use a disinfectant that is non-toxic and safe for food contact surfaces. Follow the directions for use on the product label.

Discard any eating utensils, cutting boards and other food contact surfaces that cannot be properly cleaned and disinfected.

If you have been without power, food in your refrigerator and freezer may be at risk. Follow these tips to reduce the risk of food-borne illness:

- Avoid opening the refrigerator and freezer doors. If the door is kept closed, refrigerators will normally keep foods cool for four hours. A full freezer without power will normally keep food frozen for approximately two days, and a half-full freezer will normally keep food frozen for one day.
- Add bags of ice or ice packs to help keep the food cooler for a longer period of time.
- Consider using coolers or ice chests with a supply of ice for food storage.
- Throw out perishable foods such as meat, fish, poultry, eggs and leftovers that have been at temperatures above 4°C (40°F) for more than two hours.
- Throw out food items that have come into contact with raw meat juices.



**If in doubt,
throw it out.**

**Frequently wash
your hands with soap
and clean water,
especially after being
in contact with flood
water, sewage or
items that have been
contaminated by either.**

Discarding of materials

- Dispose of non-salvageable items and building materials.
- Bag items that are considered regular waste and place at the curb on your regularly scheduled waste collection day. Bags or containers of garbage are not to exceed 23 kg (50 lb).
- Flooring, including carpet and underpadding, must be bundled in maximum two-by-four foot lengths.
- Schedule collection of metal and appliances by dialing 311 or visit **Halton.ca/wastetools**.
- Unsafe food can be placed in your GreenCart.
- Contaminated boxes, cans, bottles and paper should be placed in a garbage bag at the curb. *Do not place these items in the Blue Box as they no longer meet recycling standards.*

Items NOT accepted as regular waste and bulk waste

The following items are not accepted as regular waste. Please visit **Halton.ca/waste** for proper disposal:

- Electronics
- Household hazardous waste, e.g. solvents, garden chemicals, home cleaning products
- Metal and appliances

Mould

Mould can grow on wet surfaces in as little as 48 hours and any growth over time indicates a continuing moisture problem. If you begin to notice mould growth anywhere in your home after the flood, it is important to remove the source of moisture and clean the affected area.

Getting rid of mould

The size of the affected area will determine whether you should clean and remediate the area yourself or hire a professional:

Yourself: small areas no more than one square metre in overall size.

Professional: large areas greater than one square metre in size.



When placing regular waste or bulk waste at your curbside, please ensure that collection crews have safe access and that parked cars are not blocking the waste material.

Halton's Waste Management Site

5400 Regional Road 25, Milton

Hours of operation:
8 a.m. to 4:30 p.m.
Monday to Saturday

Fees may apply.

Halton.ca/waste

Protect yourself and others when cleaning mould

- Wear a disposable particulate mask (for example, 3M 8210 or equivalent N95 mask), unvented safety goggles and household rubber gloves.
- Consider isolating the room to protect infants, pregnant women, the elderly or those with existing health problems such as respiratory disease or a weakened immune system.
- Use an exhaust fan blowing to the outside to help prevent contamination of other areas of the house, as well as to provide ventilation.

Cleaning mould from building materials, furnishings and other items

Washable surfaces, such as tile or glass

- Wipe or scrub surfaces using a damp cloth and a solution of water and unscented detergent.
- Sponge with a clean damp cloth.
- Dry quickly and thoroughly.
- Once dry, vacuum the cleaned surfaces as well as surrounding surfaces with a HEPA (high-efficiency particulate air) vacuum cleaner.

Drywall

- Wipe the surface of the wall using a damp cloth and a solution of water and unscented detergent.
- Dry quickly and vacuum with a HEPA vacuum cleaner.
- If you are unable to wipe away the mould, it is best to replace the drywall.

Carpets and upholstered furniture

If these materials were affected by flood water and mould is visible, they will likely need to be professionally cleaned or discarded.

Any mouldy material or item that cannot be effectively cleaned should be sealed in plastic and disposed of.



How to locate a mould removal professional

Yellow Pages Directory
yp.ca

Search "mould removal and control".

Flood damage restoration companies may also have experience in mould removal.

For more information on mould, how to prevent it and how to get rid of it visit Halton.ca/mould or dial 311 to speak to a public health professional.

Replacing documents and money

Birth, marriage and death certificates

Health card

Driver's licence and vehicle registration

1-800-267-8097

ontario.ca/serviceontario

Employment Insurance

Social Insurance (SIN) card

Canada Pension Plan papers

Old Age Security card

servicecanada.gc.ca

Insurance policies

Your insurance agent

Citizenship papers

Citizenship and Immigration
Canada

1-888-242-2100

Permanent Resident Card

Citizenship and
Immigration Canada

1-800-255-4541

Passports

Local passport office
passport.gc.ca

Income tax records

Canada Revenue Agency

Wills

Your lawyer

Medical records

Your family doctor

Land titles

Provincial Land Titles office

Animal permits/licences

- City of Burlington
905-335-7600
- Town of Halton Hills
905-873-2601
- Town of Milton
905-878-7252
- Town of Oakville
905-845-6601

Bank books

Your bank

Money

(partially or completely
destroyed)

1-800-303-1282

bankofcanada.ca

Canada Savings Bonds

(partially or completely
destroyed)

1-800-575-5151

Credit cards

Issuing companies

Divorce papers

Court office where the
divorce was filed

Stocks

Issuing company or your lawyer

Military discharge papers

Library and Archives Canada
1-866-578-7777



If your home is damaged by water, gather up any documents or items that can be salvaged and put them in a package to protect them from further damage; they may be useful for claim or reference purposes.

Visit servicecanada.gc.ca for useful information on replacing identification.

Health considerations

Stay safe while addressing a flood in your home. Below is some important health information, along with tips and considerations to keep in mind while you are managing clean up and repairs.

First and foremost, wear appropriate personal protective equipment, wash hands frequently with soap and clean water and protect open sores with waterproof coverings.

Potential health risks

Contaminated flood waters can pose a risk to your health

Ingestion of disease-causing bacteria, viruses and other germs found in sewage can cause gastrointestinal (GI) illness. Ingestion occurs from eating contaminated foods, drinking contaminated water or accidentally touching your mouth with contaminated hands. Vomiting and diarrhea are common symptoms of GI illness.

Skin contact with contaminated flood water can cause skin rashes and infection in open sores.

Indoor air quality

During clean up and over time, indoor air quality can be affected, such as:

- Dust created during clean-up activities can become airborne. Close off the flooded areas during clean up and repair to prevent dust spreading to other rooms in the house. Also, keep rooms well ventilated while working.
- Use of cleaners and disinfectants can release vapours. Keep rooms well ventilated. Wear protective clothing such as gloves and masks and keep children away from the area when using these cleaning solutions.
- Mould can grow on wet building materials and belongings. Discard contaminated items and dry remaining items as quickly as possible (i.e. within 48 hours).

For more information on mould, how to prevent it and how to get rid of it, visit Halton.ca/mould or dial 311 to speak to a public health professional.

If you are experiencing health effects or are injured, seek appropriate medical attention.

Mould

- Moulds are found both outdoors and in homes and buildings, and can grow on practically anything that collects dust and holds moisture.
- Excessive dampness and mould growth on building materials and belongings can pose potential health risks.
- Most types of mould are not a health concern for healthy individuals, but some individuals may experience respiratory symptoms such as asthma, sore throat and allergy-like symptoms.
- Indoor air testing for mould is generally not recommended as results can be difficult to interpret.

Health effects related to mould depend on:

- the type of mould
- the amount of mould
- the production of certain substances by the mould
- the degree of exposure
- the health condition of the person exposed

Some people who may be more at risk of having health effects when exposed to mould include:

- pregnant women
- infants
- the elderly
- those with existing health problems such as respiratory disease or a weakened immune system



Coping after a crisis

You may experience strong feelings of stress immediately or weeks after a flood or significant weather-related event. Stress can change how you feel and act. Acknowledging how you feel can help you manage stress. It is normal to have feelings of anxiety, grief, sadness, helplessness and anger after a significant event. Everyone has different methods of coping, and it will take time before you start to feel better.

Stress

Stress is a normal response to good and bad life events but can become a problem when it affects how you cope or manage in daily life.

Some tips to help cope:

- Talk about your feelings with family, friends, neighbours and co-workers.
- Set a schedule and follow a normal routine as much as possible. It will take time before your life returns to normal.
- Eat healthy meals.
- Try to get regular sleep.
- Exercise and stay active.
- Accept help from your community.
- Offer to help in your community.
- Establish a family emergency plan in case of future events.
- Be compassionate with yourself and others.

Talking to children

It is important to be aware of your children's reactions in the aftermath of a significant event. Changes in their behaviour may indicate they are under significant stress. For example, young children might start thumb-sucking or bed-wetting, develop aches and pain, become clingy or fearful. Children might withdraw and try to be brave, when they really need your reassurance.

Signs that stress may be becoming an issue:

- Strained relationships with family and friends
- Changes in appetite and sleep patterns
- Inability to concentrate on work or school
- Replaying the event in your mind
- Avoiding places that remind you of the event
- Increased alcohol or drug use—i.e. turning to unhelpful coping strategies
- Feelings of sadness lasting more than two weeks
- Excessive guilt
- Isolating yourself
- Thoughts of harming others or yourself including suicide

After a community crisis situation, crisis and outreach programs often arrange emergency assistance services—listen to media resources to find out more. You can also visit Halton.ca or dial 311.

Talk about what has happened to help get yourself and your family back on track.

Some suggestions when talking to children

- Encourage children to express themselves and ask questions. They may want to do this by drawing or playing instead of talking.
- Take their fears seriously. Reassure them and give them additional attention.
- Let children know they are not to blame when bad things happen.
- Admit to them that you also felt afraid and may still be experiencing some feelings of fear or anxiety, but that with time and possibly some outside help you will work it out together.
- Tell children what you know about the situation. Be honest but gentle. Talk to them about the disaster.
- Keep children with you whenever it is possible, even if it seems easier to look for housing or help on your own. At a time like this, it's important for the whole family to stay together.
- Expect regressive behaviour and be tolerant of it.
- Give them a real task to do, something that gets the family back on its feet and let them help in planning something to remember the loss.
- Watch for health problems and signs of stress, such as nightmares and depression, in you or your family. Seek help if you need it. Many organizations in your community can provide counselling and other supports.
- Model self-care and continue with regular routines (teeth brushing, bedtime stories) and chores (picking out their own clothes to wear, etc.). Get enough sleep and exercise.
- Avoid or minimize watching news reports of frightening events.

Adapted from *One Step at a Time*, the Canadian Red Cross Society.

Where to go for help

24 Hour Crisis

Hospital emergency department

COAST (Crisis Outreach and Support Team)

1-877-825-9011

Information Resources

Halton Region

Dial 311

Canadian Mental Health

Association Halton Region Branch

1-877-693-4270

Your family doctor

Counselling/Therapy Services

Halton Family Services

905-845-3811

Children/Youth Services

Kids Help Phone

1-800-668-6868

Reach Out Centre for Kids (ROCK)

Burlington

905-634-2347

Milton

905-875-2575

Oakville

905-339-3525

Repairing your home

Tips and considerations when you are repairing your home

- **Do not attempt to reconnect the electricity, natural gas, telephone or TV cable yourself. Contact your service provider to reconnect it for you.**
- A qualified service technician should verify the safety of any electrical system or appliance that has been affected by flood water before it is used.
- Contact your local heating repair company to inspect your furnace and chimney.
- Professional companies can help you with cleaning and repairing your home. If you are making an insurance claim, your insurance adjuster may help you find a contractor.
- Arrange for any necessary inspections and building permits. Your contractor may take care of these for you. If not, contact your Local Municipality to find out what steps you need to take.
- Consider installing basement flooding prevention devices such as a backwater valve or sump pump.



Tips for hiring contractors

When repairing your home, be sure to work with a reputable contractor. Here are some helpful tips:

- Visit the Better Business Bureau at bbb.org. Search “Contractor – Remodel and repair” after you enter your city and province.
- Get three quotes.
- Check references.
- Sign a written contract for the work.

Grant and subsidy programs

If you have experienced flooding, you may qualify for financial assistance through Halton Region. The Region currently offers two programs to help residents who have experienced flooding due to a wastewater (sewer) backup. These programs are:

Sewer Backup Flooding Grant

If your basement has flooded due to a wastewater sewer back-up, you may qualify for financial assistance in the amount of \$1,000. This grant (also referred to as the Ex-Gratia Grant Program) can help residents to either offset the cost of a deductible under their personal home insurance policy or help with flood-related clean-up costs.

If you have experienced a wastewater sewer backup, you may apply for this program by completing the Sewer Backup Flooding Grant form found on [Halton.ca/flood](https://www.halton.ca/flood) or dial 311. Once your information has been submitted, a Regional employee will be sent to your home as soon as possible to assess the flood damage to your home.

Basement Flooding Prevention Subsidy Program

This is a one-time Basement Flooding Prevention Subsidy Program.

The program assists:

- Halton residents who have a history of basement floods caused by a backup or surcharge of the wastewater sewer system.
- Halton residents who have not experienced flooding but would like to correct improper storm water connections and install a backwater valve.

In order to apply for the subsidy, residents must have the work done by a qualified drainage contractor in accordance with the Ontario Building Code standards.

Learn more

You can learn more about these two programs, the processes for application, the terms and conditions for funding, and more by visiting [Halton.ca/flood](https://www.halton.ca/flood) or by dialing 311.

Flooding checklist

Flooding prevention

- Keep drains, gutters and downspouts clear of leaves and other debris.
- Ensure sump pump is working properly and has battery backup.
- Do not drain or flush grease, oil and other materials not meant for the plumbing system.
- Ensure weeping tile system is disconnected from the wastewater system.
- Improve your lot grading to make sure the ground slopes away from your home.

When a flood happens

- Contact Halton Region at 311 to report your flood.
- Call your insurance company as soon as possible.
- Dry your home as quickly as possible to prevent mould growth.
- Find a reputable restoration company and or contractor to help with clean up and repair. Visit bbb.org.

Health and safety

- Seek help if you or your children experience strong feelings of stress following a flood or significant weather-related event.
- Wash hands frequently with soap and clean water.
- Wear protective clothing before cleaning contaminated areas.
- Clean contaminated surfaces first before disinfecting.
- Carefully follow directions on disinfectants before using.
- Have an exhaust fan to help dry areas quickly.
- Discard contaminated food items.

Emergency preparedness

- Know the risks of the hazards in my area.
- Create and understand your emergency plan (e.g. what to do and where to go).
- Assemble a 72-hour Go-Kit.
- Keep copies of important documentation and items of sentimental value out of the basement.



For more information about Halton's wastewater system or to learn more about what you can do to prevent basement flooding in your home, visit **Halton.ca/flood** or dial 311.

Our commitment is to provide you with information and services that are high quality, professional, consistent, informative and friendly.



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