INTACT CENTRE ON CLIMATE ADAPTATION



Does Your Home Need a Flood Prevention Tune Up?

Much like a car, a home needs regular tune ups to keep it functioning properly. Your home was originally constructed with specific features designed to reduce the risk of rain and snow melt from flowing into your basement. Also, at the time of construction, the soil around your home was carefully graded to direct water away from your foundation and to direct water off your property into the municipal stormwater system.

Over time, if your home's flood prevention features have not been maintained, if the underground pipes that carry water or sewage away from your house have been damaged or clogged or if the original lot drainage was changed on your property, you are at increased risk of basement flooding.

Does your home need a flood prevention tune up? Please see the chart below for signs of trouble and what you can do to repair, upgrade and maintain your home's flood protection features to increase the likelihood that your basement will stay dry and comfortable, as it was originally intended to be.

Outside Your Home

One of the best ways to find out how your home's outdoor drainage systems are performing is to go outside during a heavy rain or during a spring thaw and watch where the water is flowing. Is it moving freely away from your home and then offsite? If so, that is great! If it is overflowing from your rain barrel, spilling out of cracks in your eaves troughs, pooling at your foundation, or ponding on your lot for over 24 hours, it means that your home is in need a flood prevention tune up!

| ltem | Signs of Trouble | Repair/ Upgrade | Maintenance |
|------------------------------|--|---|---|
| Nearest Stormwater Drain | Clogged with debris, pooling of water during heavy rains or spring thaws | Remove debris regularly, if this does not address pooling contact the City for repair | Check once per season, do not sweep leaves onto storm drains in the fall |
| Grading Around Foundation | Water pooling at your foundation, ice buildup in the winter | Regrade so that water flows away from the foundation | Spring and fall check for grading problems and correct these |
| Lot Grading | Water pooling in the yard or on driveway, water flowing directly onto neighbour's property | Correct grading so that water flows to the municipal storm sewer system, if grading has been changed to soak up water onsite ensure that water is absorbed within 24 hours is at least 10' from foundation | Examine during heavy rain or spring melt, correct as needed |

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| Driveways and Sidewalks | Hard surfaces sloped towards foundation or cracked surface, pooling of water, ice build-up in winter | Repair hard surfaces so that water flows away from foundation, repair cracks, where possible direct downspouts away from hard surfaces | Examine during heavy rain or spring melt, correct as needed |
|----------------------------|--|--|--|
| Windows | Broken seals, broken glass, damaged frame | Repair and/or replace seals, glass, frames | Check and repair/replace in spring and fall, shovel snow at least 1m away from windows in winter |
| Window Wells | Non-existent, filled with debris or water pooling inside window well | Install window wells so that edge is 6" from the ground, consider installing plastic covers | Remove debris in spring and fall, check for pooling water after heavy rains |
| Foundation Walls | Cracks, efflorescence present (salt deposits) | Repair cracks, consult with professional to determine root cause of cracks, efflorescence | Check and repair cracks spring and fall, shovel snow at least 1m away from foundation in winter |
| Eaves Troughs | Missing sections, leaking at joints or overflowing | Replace missing sections, repair leaks and remove debris | Spring and fall check for and repair leaks, remove debris |
| Downspouts | Depositing water less than 6' (2m) away from foundation | Extend/replace downspouts to ensure water flows smoothly at least 6 feet (2m) from the foundation | Spring and fall check and replace, check weekly during growing season |
| Rain Barrels | Overflowing during heavy rains and/or overflow hose depositing water at foundation | Ensure amount of water flowing into barrel equals amount flowing out to prevent overflow at top, ensure that your rain barrel's overflow hose extends at least 6'(2m) away from your foundation | Drain and disconnect after Hallowe'en and re-attach downspout, reinstall in spring |

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Inside Your Home

Are there signs of trouble in your basement? Does your sump pump run regularly or not run when you need it? Have you experienced sewer backup during heavy rains? Is there a musty or mouldy smell in your basement? A tune up will help make your basement a drier and more comfortable space.

| Item | Signs of Trouble | Repair/Upgrade | Maintenance |
|-------------------------------|--|--|---|
| Water Pipes and Appliances | Leaking, corrosion | Inspect plumbing and fixtures, repair, replace as needed, install flood alarms | Inspect on an annual basis |
| Sump Pit and Pump(s) | Running at frequent intervals, pump seized and not working, no cover on sump pit | Repair/replace pump, get backup pump and back-up power source in case of power failure, purchase alarm, cover sump pit | Test/maintain pumps and batteries, test alarms in spring and fall |
| Backwater Valve | Lack of backwater valve, sewage coming up through toilets and sinks | Check with a plumber to determine if a backwater valve is right for your home, clean and test your backwater valve | Clean and test your backwater valve each spring and fall, keep fats, oil and grease out of your sink to prevent clogging |
| Floor Drain | Foul smell coming from drain, sewage backing up into basement, roots visible in drain, no standing water in drain, drain covered or blocked | Contact City to explain problem, contact plumber if City determines private property issue, remove covering from drain, ensure open pathway for flood water to flow to drain | Test to ensure water running freely in spring and fall, keep drain and flow path to drain clear |
| Foundation Walls | Cracks, leaks or stains present, efflorescence | Repair leaks and cracks inside and outside the home, if foundation drains present inspect and repair if needed | Check for leaks and efflorescence during heavy rain and spring melts, repair as needed |
| Basement Floor | Cracks, leaks or stains present, efflorescence | Repair leaks and cracks, check buried pipes for leaks, if foundation drains present inspect and repair if needed | Check for leaks and efflorescence during heavy rain and spring melts, repair as needed |

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| ltem | Signs of Trouble | Repair/Upgrade | Maintenance |
|--------------------------------|---|--|--|
| Stored Items | Items touching unfinished walls or floors, damp to the touch, smell of mould or visible mildew | Remove damaged items, store items in waterproof containers 3' off the floor and away from walls, remove highly valuable items from basement | Spring and fall remove and properly store items |
| Indoor Humidity | Musty or mildew smell, furnishings damp to the touch | Remove indoor sources of moisture (e.g. firewood storage, dryer vented to inside). Ensure bathrooms are vented with fans strong enough to hold a tissue, run fans for 30 minutes after showering, run dehumidifiers to achieve 30-50% humidity | Run dehumidifier to achieve 30-50% humidity year round |
| Furnishings and Electronics | Items prone to water damage and/or mould used in basement, electronics on floor | Replace items that are not easily damaged by water e.g. couches with metal legs, raise electronics and mount on walls | Inspect and correct in spring and fall |
| Basement Finishes | Finishes are easily damaged by water e.g. carpet, drywall | When renovating select materials that are water resistant e.g. ceramic tile, cement board, spray foam insulation and items that are easily removed and cleaned (e.g. area rugs) | Replace items as budget permits to reduce replacement cost in case of flood |