



# HOMEOWNER FLOOD RISK REDUCTION RESOURCE LIST

# **Introduction to the Home Flood Protection Program**

The Home Flood Protection Program is an educational service designed to help homeowners reduce their risk of basement flooding and minimize damage if flooding occurs. The program is developed by the Intact Centre on Climate Adaptation (ICCA) at the University of Waterloo and is being piloted in Burlington, Ontario.

#### Introduction to the Homeowner Flood Risk Reduction Resource List

This Resource List has been created to provide a starting point for homeowners to learn about basement flood protection and to support the uptake of practical action to reduce flood risk. Most of the resources will be helpful to homeowners across Ontario. Specific resources have also been collected to support homeowners in Burlington, Ontario.

The list has been compiled by staff at the Intact Centre on Climate Adaptation (ICCA) to provide online water damage risk reduction resources that meet the following criteria:

- 1. Resources are written at a level of detail and technical language appropriate for the average homeowner to find easy to use.
- 2. Resources have been developed by reputable government, non-profit, and commercial sources.
- 3. All videos and factsheets have been selected for their educational value and do not directly promote any one product or service

## **Help Us Improve the Resource List**

We welcome your input! If there is a resource that meets our criteria that you would like to see added, please share it with us. All requests can be directed to Janet Szydlowski, Home Flood Protection Program Assistant at floodprotect.info@uwaterloo.ca.

**Please Note**: The Intact Centre on Climate Adaptation is providing this list of online resources for the convenience of interested homeowners. The Intact Centre on Climate Adaptation is in no way providing advice of any kind and does not endorse or recommend any of the services or products identified below.





#### **Table of Contents**

#### **Local Resources**

## Halton Region and City of Burlington

## Flood Risk Management Resources for Outside your Home

- 1. Storm Drains and Proper Drainage
- 2. Lot Grading and Overland Drainage
- 3. Trees
- 4. Landscaping and Overland Drainage Around your Home Gardens and Lawn
- 5. Permeable Paving
- 6. Eaves Troughs and Downspouts
- 7. Rain Barrels
- 8. Foundation Drain and Sewer Lateral Maintenance
- 9. Foundations and Grading at Foundations
- 10. Repairing Cracks in your Foundation
- 11. Exterior Water Sources
- 12. Basement Windows and Window Wells

## Flood Risk Management Resources for Inside your Home

- 1. Drain Maintenance in your Home
- 2. Sewer Lateral and Floor Drain
- 3. Backwater Valve
- 4. Sump Pumps and Pits Maintenance
- 5. Indoor Plumbing and Fixtures Maintenance
- 6. Finished Walls and Floors
- 7. Storage and Limiting Indoor Humidity

## **Additional Resources**

- 1. What to Consider Before You Start a Project
- 2. How to Find a Reliable Contractor
- 3. Understanding Water Damage Insurance
- 4. Preparing for a Flood





LOCAL RESOURCES	
Halton Region and City of Burlington	
Basement Flooding Subsidies Access Link (Website) (Click on Basement Flooding at the bottom of this page and fill in your address to access information on available subsidies)	Halton Region
Basement Flooding – Emergency Preparedness (Website)	Halton Region
Halton Region Downspout Disconnection Program (Factsheet)	Halton Region
After the Flood- Homeowners Checklist (Factsheet)	Halton Region
Flood Assistance (Website)	City of Burlington, Halton Region
Flood Prevention Home Check-Up (Website)	City of Burlington
By-laws (Website)	City of Burlington
Private Drains By-law (Website)	City of Burlington
Site Alteration By-law (Website)	City of Burlington
Public Tree By-law (Website)	City of Burlington
Storm Sewer Discharge By-law (Website)	City of Burlington





# FLOOD RISK REDUCTION RESOURCES FOR OUTSIDE YOUR HOME

Storm Drains and Proper Drainage	
Storm Water Drainage in the City of Burlington (Factsheet)	City of Burlington
Home Drainage and Causes of Basement Flooding (Factsheet)	City of Toronto
Storm Drain Survival Kit (Factsheet)	City of Lethbridge, Alberta
Storm Drain Clean Up (Video)	City of Lethbridge, Alberta
Adopt a Storm Drain (Factsheet)	City of Lethbridge, Alberta
Lot Grading and Overland Drainage	
Bylaws Enforcement Grading & Drainage/Site Alteration (Factsheet)	City of Burlington
Lot Grading and Drainage (Factsheet)	City of Hamilton
Lot Grading (Video)	City of Hamilton
Lot Drainage Issues (Video)	Institute for Catastrophic Loss Reduction
Trees	
Root Growth in Sewers (Factsheet)	City of Edmonton
Trees Near the House? Foundations Beware! (Factsheet)	Quebec CAA
Landscaping and Overland Drainage Around Your Home – Gardens and Lawn	
How to Build a Rain Garden (Factsheet)	This Old House





Creating a Rain Garden (Factsheet)	Credit Valley Conservation Authority	
Maintaining Your Rain Garden (Factsheet)	Rutger's	
Rain Gardens: Design and Maintenance (Factsheet)	Canadian Mortgage and Housing Corporation	
Native Plants for Your Rain Garden (Factsheet)	Toronto Region and Conservation	
Rain Garden Case Study: St John's Parish, Kitchener Ontario (Video)	REEP Green Solutions	
Soak It Up! How to Install a Soak-away Pit and Increase Permeability of Hard Surfaces (Factsheet & Video)	REEP Green Solutions	
Outdoor Water Management – Permeable Paving and Soakaway Pits (Video)	REEP Green Solutions.	
Infiltration Galleries (Video)	REEP Green Solutions.	
The Benefits of Bioswales, Permeable Pavement, Rain Gardens, Downspout Disconnection and Green Infrastructure (Factsheet)	Green Infrastructure Ontario Coalition	
Permeable Paving		
Permeable Pavement (Factsheet)	City of Edmonton	
The Benefits of Bioswales, Permeable Pavement, Rain Gardens, Downspout Disconnection and Green Infrastructure (Factsheet)	Green Infrastructure Ontario Coalition	
Soak It Up! How to Install a Soakaway Pit and Increase Permeability of Hard Surfaces (Factsheet &Video)	REEP Green Solutions	
Outdoor Water Management – Permeable Paving and Soakaway Pits (Video)	REEP Green Solutions.	
Eaves Troughs and Downspouts		





Halton Region Downspout Disconnection Program (Factsheet)	Halton Region	
Downspout Disconnection Subsidy (Factsheet)	Halton Region	
Disconnecting Downspout DIY (Factsheet)	City of Toronto	
Are Your Gutters and Downspouts Doing Their Job? (Factsheet)	Quebec CAA	
Cleaning Gutters and Downspouts: An Essential Task! (Factsheet)	Quebec CAA	
How to Install a Rain Gutter (Video)	This Old House	
How to Drain Downspout Water Flow Away From a House (Video)	This Old House	
Proper Water Drainage (Factsheet)	Mike Holmes, Make it Right	
How to Clean Gutters and Downspouts (Factsheet)	Do it Yourself.com	
Rain Barrels		
Rain Barrel Assembly, Installation and Maintenance (Video & Factsheet)	Rainbarrel.ca	
Rain Barrels (Video)	REEP Green Solutions	
How to Make a Rain Barrel (Video)	Today's Homeowner	
Foundation Drain and Sewer Lateral Maintenance		
Sanitary Lateral Lining and Repair Subsidy (Factsheet)	Halton Region	
Foundation Drains: Problems and Solutions (Factsheet)	CAA Quebec	
Getting to Know Your Foundation Drain System - Life Expectancy and Maintenance (Factsheet)	Square One Insurance	





Sewer Backups and Basement Flooding (Factsheet)	Halton Region
Sewer and Sewer Laterals: How Can I Prevent Backups in My Sewer Lateral? (Factsheet)	Municipality of Cornwall Ontario
Sewer Lateral Blockages: What Should You Do When Your Sewer Lateral Backs Up (Factsheet)	City of Brantford Ontario
Sewer Lateral Blockages FAQ (Website)	City of Brantford Ontario
<u>Understanding Your Sanitary Sewer Lateral (Factsheet)</u>	Sanitary District 1, Kentucky, USA
Foundations and Grading at Foundations	
Bylaws Enforcement Grading & Drainage/Site Alteration (Factsheet)	City of Burlington
How to Repair a Crack in a Concrete Foundation(Video)	This Old House
Infrared Thermograph: High Tech Inspection to Detect Water Infiltration in Foundation or Roof (Factsheet)	Quebec CAA
How to Grade Around a Foundation (Video)	This Old House
How to Waterproof a Basement (Video)	This Old House
Efflorescence (Factsheet)	<b>Basement Questions</b>
Efflorescence: How to Recognize It and Take Action – If Need Be (Factsheet)	Quebec CAA
Repairing Cracks in Your Foundation	
How to Repair a Crack in a Concrete Foundation (Video)	This Old House
How to Recognize a Problematic Foundation Crack and What to Do About It (Article)	National Post





Infrared Thermograph: High Tech Inspection to Detect Water Infiltration in Foundation or Roof (Factsheet)	Quebec CAA
Exterior Water Sources	
Winterizing Your Hose Bibs (Video)	The Neighborhoods of EYA
Basement Windows and Window Wells	
How to Seal Basement Windows (Factsheet)	Do It Yourself
Exterior Sealants to Guard Against Damaging Infiltrations (Factsheet)	Quebec CAA
Weather Stripping Basement Windows (Factsheet)	Natural Resources Canada
Getting to Know Your Window Wells (Factsheet)	Square One Insurance

FLOOD RISK MANGEMENT RESOURCES FOR INSIDE YOUR HOME	
Drain Maintenance in Your Home	
Green Methods for Indoor Drain Maintenance (Factsheet)	David Suzuki Website
How to Clear Any Clogged Drain (Factsheet)	This Old House
Blocked Drain (Factsheet)	Quebec CAA
Sewer Lateral and Floor Drain	
Sanitary Lateral Lining and Repair Subsidy (Factsheet)	Halton Region
Blocked Drain (Factsheet)	Quebec CAA





Drains and Foundation: Prevention or Repair? (Factsheet)	Quebec CAA	
Backwater Valve		
Installation of Backwater Valve Subsidy (Factsheet)	Halton Region	
Backwater Valves: How They Work and General Maintenance Practices (Video)	Cranberry Township	
Avoid Sewage Backflow With a Backwater Valve (Video)	Insurance is Evolving	
The Backwater Valve: A One-Way Trip for Wastewater (Factsheet)	Quebec CAA	
Importance of Backwater Valves (Video)	HGTV, Holmes Makes it Right	
Focus on Backwater Valves (Factsheet)	Institute for Catastrophic Loss Reduction	
Backwater Valve (Factsheet)	Insurance Bureau of Canada	
Sump Pumps and Pits Maintenance		
Weeping Tile Disconnection and Installation of Sump Pump Subsidy (Factsheet)	Halton Region	
Focus on Sump Pump Systems (Factsheet)	Institute of Catastrophic Loss Reduction	
How to Keep Your Basement Dry With a Sump Pump (Video)	Insurance is Evolving	
Simple Sump Pump Maintenance (Video)	Central Insurance	
How to Install a Battery Operated Backup Sump Pump (Video)	This Old House	
Indoor Plumbing and Fixtures Maintenance		
Preventing Water Damage: Appliance Maintenance and Water Shut-Off Valve (Video)	Insurance is Evolving	





How to Unclog a Toilet and Keep the Problem From Recurring (Factsheet)	Quebec CAA
Plumbing Defects and How to Prevent Them (Factsheet)	Quebec CAA
Flushing Your Water Heater (Factsheet)	Quebec CAA
How to Repair a Crack in a Concrete Foundation (Video)	This Old House
Finished Walls and Floors	
The Right Flooring for Your Basement (Factsheet)	Money Sense
Basement Floor Finishes: Your Options (Factsheet)	Quebec CAA
Floor Covering Options (Factsheet)	Quebec CAA
Checklist: Moisture Problems in the Basement (Factsheet)	Canadian Mortgage and Housing Corporation
Basement Waterproofing Options (Factsheet)	HGTV
Storage and Limiting Indoor Humidity	
Moisture Problems in the Basement (Factsheet)	Canadian Mortgage and Housing Corporation
A Guide for Understanding and Fixing Interior Moisture Problems in Housing (Factsheet)	Canadian Mortgage and Housing Corporation
Mold: Get Rid of It for Good (Factsheet)	Quebec CAA





ADDITIONAL RESOURCES	
What to Consider Before You Start a Project	
Call Before You Dig (Website)	City of Burlington
Call Before You Dig (Website)	OntarioOneCall
Bylaws Enforcement Grading & Drainage/Site Alteration (Factsheet)	City of Burlington
Do I Need a Building Permit? (Website)	City of Burlington
How to Find a Reliable Contractor	
Your Rights When Starting Home Renovations and Repairs (Factsheet)	Province of Ontario
Need Work Done? Here's How to Find a Reliable Contractor (Factsheet)	Quebec CAA
Finding a Contractor for Small Jobs (Factsheet)	Quebec CAA
Do Not Sign Without Reading the Fine Print (Factsheet)	Quebec CAA
How to Hire a Contractor (Factsheet)	Mike Holmes, Make it Right

Understanding Water Damage Insurance	
Preventative Tips to Avoid Water Damage (Video)	Insurance is Evolving
Renovations and Home Insurance: Check Your Coverage Options (Factsheet)	Quebec CAA
Flood Insurance: What is Covered? What is Excluded (Factsheet)	Square One Insurance
A Guide for Understanding and Fixing Interior Moisture Problems in Housing (Factsheet)	Insurance Bureau of Canada





Handbook for Reducing Basement Flooding (Factsheet)	Institute for Catastrophic Loss Reduction
Does Your Home Need a Flood Prevention Tune Up? (Factsheet)	Intact Centre on Climate Change Adaptation
Preparing for a Flood	
Helping Canadians Prepare for a Flood (Website)	Flood Smart Canada
Flood Facts Canada (Factsheet)	Government of Canada
Being Prepared for a Flood(Factsheet)	Government of Canada