

TOWNSHIP OF HOWICK
FLOOD EMERGENCY PLAN
FOR THE VILLAGES OF
FORDWICH
GORRIE
WROXETER

TABLE OF CONTENTS

SECTION		PAGE
1.0	Introduction	1
2.0	Purpose of the Plan	1
3.0	Authority and Custodian	1
4.0	Flood Emergency Definition	1
5.0	Notification and Implementation	2
6.0	Mitigation Strategies	2
7.0	Government and Non-Government Agencies Roles and Responsibilities	2
7.1	Maitland Valley Conservation Authority	2
7.2	Township of Howick	3
7.3	Township of Howick ECG	3
7.4	Public Works Co-ordinator	3
7.5	Howick Firefighters	3
7.6	Wroxeter Village Management	4
7.7	Huron OPP	4
7.8	Huron County Public Health Unit	4
7.9	Huron Ambulance Services	4
7.10	Avon Maitland School Board	4
7.11	Huron County Social Services	4
7.12	Property Owners	4
8.0	Resources	4
9.0	Training	4
10.0	Recovery	4
11.0	Public Education	5
APPENDICES:		
Appendix A	Flood Checklist	
Appendix B	Sample Bulletins	
Appendix C	Flood line Maps / Resident Notification List	
Appendix D	Resident's Letter	

Township of Howick FLOOD EMERGENCY PLAN

1.0 INTRODUCTION:

The Township of Howick's 'Emergency Plan' identifies Flooding as an emergency event likely to occur in the Township, and the Maitland Valley Conservation Authority's 'Flood Contingency Plan' lists the Villages of Fordwich, Gorrie and Wroxeter as "*flood prone areas*" due to heavy snowfalls combined with late or rapid snow melts, excessive rain or ice jams.

Vulnerable Populations within the villages that would be affected by flooding include all residents inhabiting homes situated in the floodway zones as indicated on the maps included in Appendix "C".

Critical municipal infrastructure identified within the flood prone areas includes the main artery road in each of the villages, all of which are bisected by a bridge and could be rendered impassable during a flood. Access to the Fire Station in the Village of Gorrie and to the Fordwich Village Nursing Home in Fordwich could be impeded. The Wroxeter Village Management, responsible for operation and maintenance of the Wroxeter dam, must work in co-operation with Maitland Valley Conservation Authority, responsible for operation and maintenance of the Gorrie dam, to co-ordinate removal of boards from the dams when conditions dictate.

2.0 PURPOSE OF THE PLAN:

The purpose of this plan is to complement the Township of Howick's Emergency Response Plan. The Township of Howick has rated the incidence of Flooding as high on their Hazard Identification and Risk Assessment.

The purpose of the flood risk emergency plan for the Township of Howick is two-fold:

- i) To **identify the roles and responsibilities** of the Township of Howick and its staff, the residents and owners of property within Villages, and support agencies such as the Maitland Valley Conservation Authority (MVCA), to prepare for and manage a flood emergency
- ii) To **outline the actions** of officials of the Township of Howick once a Flood Warning Bulletin has been received from the MVCA.

3.0 AUTHORITY AND CUSTODIAN:

The authority for the establishment of the Flood Emergency Plan is included in the *Emergency Management and Civil Protection Act*. This Flood Emergency Plan has been prepared by the Emergency Management Program Committee of the Township of Howick and has been included as an appendix to the Township of Howick Emergency Plan, which was adopted by Howick Council in 2004. This Plan will be reviewed annually by the CEMC and the Public Works Co-ordinator to ensure that it remains current.

4.0 FLOOD EMERGENCY DEFINITION:

River flow records indicate that floods can occur anytime during any given year, but the magnitude of such flooding will vary according to such factors as the amount of snow cover, temperature, extent and duration of freezing periods, amount of rainfall, wind direction and velocity, and soil conditions. Generally, in Ontario, the 100-year-flood or Regional Storm Flood Event (Hurricane Hazel) is used to define the flooding hazard limit

for municipalities. In Howick Township the Regional Storm Flood Event is the defining flood hazard event

A Regional Storm Flood Event is defined as a “major storm of record” for flood regulation purposes. The rainfall actually experienced during Hurricane Hazel combined with local conditions is used by the Conservation Authority to establish the Regional Floodplain.

5.0 NOTIFICATION AND IMPLEMENTATION:

This plan may be implemented in whole or in part, with or without the declaration of an emergency by the Head of Council or by the Township’s Public Works Co-ordinator. Upon assessing the situation, the Public Works Co-ordinator will make a decision with respect to the notification of the Township of Howick Emergency Control Group (ECG). The procedures set out in the Emergency Response Plan will be utilized to notify the members of the Township’s Emergency Control Group.

In the event that the Maitland Valley Conservation Authority issues a Flood Warning Bulletin (Appendix B) the Township’s Emergency Control Group will be notified and requested to assemble at the primary emergency operations centre.

6.0 MITIGATION STRATEGIES

Existing flood mitigation strategies for the Township of Howick can be categorized into two types: ‘Non-Structural’ and ‘Structural’.

Non-Structural strategies include the approval of specific Official Plan policies involving the designation of ‘Open Space’ and ‘Restricted’ Areas within the Villages. During the mid 1990’s a two-zone flood plain management zoning strategy was implemented for all new development and redevelopment within the Regional Floodplain. A two-zone concept identifies a floodway and a flood fringe. The floodway refers to that portion of the floodplain where development and site alteration would cause a threat/risk to public health and safety and property damage. In other words, that portion of the floodplain required for the safe passage of flood waters. The flood fringe on the other hand contains that portion of the floodplain where development may be permitted subject to certain established standards and procedures (Understanding Natural Hazards, MNR 2001). To this end, the Township of Howick Zoning By-law No. 23-1984 contains provisions for the requirement of certain flood proofing standards for new development within the flood fringe areas and these are considered structure mitigation strategies.

7.0 GOVERNMENT AND NON-GOVERNMENTAL AGENCIES ROLES AND RESPONSIBILITIES:

The following roles and responsibilities are to be considered additional to those set out in the Emergency Response Plan and to any internal agency or department Emergency Response Plan.

7.1 Maitland Valley Conservation Authority (MVCA)

- i) Maintain precipitation and stream flow monitoring network.
- ii) Issue flood flow forecasts when required.
- iii) Annually update MVCA’s Flood Contingency Plan. A copy of the MVCA’s Flood Contingency Plan is located in the Public Works Co-ordinator’s Emergency Kit located in the EOC.

- iv) Assist the Township of Howick with the maintenance of their flood emergency plan.
- v) Provide technical advice on ways to reduce loss of life, property and social disruption from flood events.
- vi) Attend at the Township of Howick Emergency Operations Centre, if requested by the Emergency Control Group.

7.2 The Township of Howick:

- i) Annually review and maintain the Township’s Flood Emergency Plan,
- ii) The following have been appointed as the municipal flood co-ordinators for the Township of Howick – Public Works Co-ordinator, Head of Council, Clerk/CEMC, Wingham Area Fire Chief, Huron O.P.P.
- iii) Maintain an up-to-date listing of the residents and property owners in potentially affected areas. Affected areas are those identified, in consultation with the MVCA as sustaining a risk to life or property in a flood emergency. These areas are identified in MVCA Flood Plain Maps.
- iv) Maintain an up-to-date listing of the ECG members.
- v) Conduct a public education campaign to residents about the flood risk, how to prepare for a flood emergency and what to do in the event of a flood emergency.
- vi) Review the Flood Checklist identified in Appendix “A” to this plan and implement accordingly.

7.3 Township of Howick Emergency Control Group (ECG)

- i) Upon receipt of a flood warning bulletin, the ECG will activate the Township’s Flood Emergency Response Plan, Emergency Response Plan and Emergency Information Plan.
- ii) Alert affected residents based upon flooding scenarios provided by the Maitland Valley Conservation Authority. The appendices contain a listing of the municipal addresses of properties that are likely to be affected by a flood emergency, and a map showing the flood proned areas and those areas likely to be evacuated in the event of a flood warning.
- iii) The ECG will monitor the flood situation and recommend to the Head of Council the declaration of a flood emergency.
- iv) Conduct evacuations. Schedule “A” identifies flood evacuation zones, with Zone 1 being the area of greatest priority and Zone 2 the area of secondary importance. Areas outside of Zone 1 and Zone 2 are not likely to be flooded during a regional storm event.
- v) Monitor the flood situation and if warranted provide advice to village residents through the implementation of the Emergency Information Plan including the use of the road and hydro services.

7.4 Township of Howick Public Works Co-ordinator

- i) Review Appendix “A” checklist and complete steps as required
- ii) Direct evacuation
- iii) Direct notification of affected flood areas using public works vehicles

7.5 Township of Howick Firefighters

- i) Conduct telephone / door-to-door notification to advise those living in designated flood areas to take necessary steps to prepare.

7.6 Wroxeter Village Management

- i) Maintain and operate the Wroxeter dam in accordance with the *Manual for the Operation and Maintenance of the Wroxeter Dam*.
- ii) Co-ordinate with MVCA removal of boards from the dam as required.

7.7 Huron O.P.P:

- i) Set up road blocks at all of the major intersections leading into villages
- ii) Identify pre-flood event locations of emergency road blocks and train staff accordingly.

7.8 Huron County Health Unit:

- i) Assist with the inspection of buildings affected by the flood.

7.9 Huron County Emergency Services (Ambulance)

- i) Liaise with LHIN to determine if any critically ill at-home residents are in need of assistance if in flood affected area.

7.10 Avon Maitland School Board:

- i) The Avon Maitland School Board may be contacted for assistance in opening up and preparing the school to receive evacuees at Howick Central School.

7.11 Huron County Social Services:

- i) Assist Township of Howick with the evacuation of residents from the flood affected area.
- ii) Assist in the monitoring of residents getting back into their homes.
- iii) Assist with arrangements for those individuals not permitted to re-occupy their homes after the flood event.

7.12 Property Owners / Residents:

- i) Prepare a flood emergency plan for own property and be prepared to take appropriate action in the event that a Flood Warning is issued and evacuation ordered.
- ii) Safeguard lives and secures possessions prior to a flood evacuation.

8.0 RESOURCES

Procurement for resources required is the responsibility of the Treasurer of the Township of Howick as approved by the Township of Howick ECG. Sheltering will be the responsibility of the County of Huron Social Services subject to any agreements or memorandums of understanding they may have with the municipality and supporting agencies.

9.0 TRAINING

Each participating agency/department listed in this plan is responsible for defining and providing the training, at its own cost, required for its staff to perform its emergency role.

10.0 RECOVERY:

Recovery procedures will be implemented as per the Township of Howick Recovery Management Plan (Emergency Plan, Appendix P). Township of Howick's Emergency

Control Group (during declared emergencies) will determine when the response phase has terminated and recovery measures are required.

Any claims for costs and/or damages incurred during the flood emergency will be forwarded to the Treasurer of the Township of Howick for consideration of reimbursement.

The Township will consider application to the Ontario Disaster Relief Assistance Program.

11.0 PUBLIC EDUCATION REQUIREMENTS

The following information will be provided to residents in the Flood Prone areas through a structured public education campaign put forward by the Township in consultation with the Maitland Valley Conservation Authority.

In order to safeguard yourself and others during a flood warning, village residents should take the following precautions/actions.

- Remain calm.
- Listen to local radio – CKNX - and local cable television – CKNX. These stations will be used as the primary media for the issuance of flood advisories, warnings and updates as provided by the MVCA or the Township of Howick.
- Call the emergency information centre for details.
- Warn all residents and guests on the property of the flood alert and take necessary precautions.
- If flooding appears to be imminent, evacuate.
- Vacate your home or work when municipal officials request you to do so. Ignoring such a request could put you and your family's health or safety at risk.
- Listen to your local radio stations for information on the location of evacuation/reception centres.
- Take your 72-hour survival kit.
- Shut off utilities before leaving, if requested to do so.
- Lock your house or business.
- Leave via designated routes, if your municipality has identified such routes.
- Register with the local reception centre so that you can be contacted and reunited with your family.
- Notify your family contact of your location and condition.
- Inform evacuation officials of your whereabouts.
- Report any missing individuals
- Once flood levels have subsided, wait for confirmation that the property is suitable for clean up and re-occupation.

i) Public Awareness Flood Information:

A Self-Help Advice pamphlet on what to do before and after FLOODS, as prepared by the Government of Canada, was distributed to all property owners/residents and business persons and in particular those within the highest flood risk areas. This pamphlet provides some very important information on what homeowners and business persons can do to safeguard themselves and others before, during and after a flood event.

The Canadian Mortgage and Housing Corporation website at www.cmhc-schl.gc.ca/en/inpr is a very good source containing suggested consumer resources/fact sheets to deal with the aftermath of a flood in your home.

ii) **Public Education:**

- a) The Township will publish a notice to residents in the flood prone area to remind residents and businesses of the risks and the steps to be taken to safe guard their homes should a flood event occur. A sample letter is attached as appendix “D”.
- b) Conduct an Open House with residents and businesses concerning the Flood Risk Emergency Plan and how the public can become better prepared.
- c) MVCA conducts annual public education campaigns in the school.
- d) The Township will work with MVCA regarding procedures and notification methods.

APPENDIX A

FLOOD CHECKLIST

In the event that the MVCA issues a Flood ADVISORY, the following steps/actions will be taken:

- MVCA will telephone and fax an “**ADVISORY**” Bulletin to the Reeve and Clerk and the Municipal Flood Co-ordinator (Public Works Co-ordinator). An example of a Flood Advisory Bulletin is illustrated in Appendix “B”.
- The Municipal Flood Co-ordinator or alternate will assess local flood situation.
- The Flood Co-ordinator will activate the Township’s Flood Emergency Notification System if deemed necessary.

In the event that MVCA issues a Flood WARNING Bulletin, the following steps/actions will be taken.

- MVCA will telephone and/or fax a “**WARNING**” Bulletin to the Reeve, the Media, Police, County, MNR, MTO and Hydro One. An example of a Flood Warning Bulletin is illustrated in Appendix “B”.
- The Flood Co-ordinator will activate the Township of Howick Flood Emergency Notification System.
- Clerk/CEMC or alternate will initiate an emergency notification call to each member of the Emergency Control Group as listed in Appendix “A” of the Township’s Emergency Plan and they will be asked to report to the Township’s primary EOC.

APPENDIX "B"

SAMPLE MVCA EXAMPLE ADVISORY AND WARNING BULLETINS

FLOOD ADVISORY BULLETIN

TO: Township of Howick

FROM: MVCA Message No. 01 **DATE:**

ADVISORY:

FORECASTED RAINFALL INDICATES A POSSIBILITY OF FLOODING ALONG THE MAITLAND RIVER AND ALL TRIBUTARIES OVER THE NEXT TWENTY-FOUR HOURS. THE MAITLAND VALLEY CONSERVATION AUTHORITY REQUESTS THAT OFFICIALS IN CHARGE OF THE TOWNSHIP'S FLOOD WARNING SYSTEM BE ON STAND BY DURING THIS PERIOD. SUBSEQUENT BULLETINS WILL BE ISSUED WHEN FURTHER INFORMATION IS AVAILABLE.

Received by: _____ . From: _____ . Time: _____ . Date: _____ .

FORWARD TO: SENT BY: TIME RECEIVED

FLOOD WARNING BULLETIN

TO: Township of Howick

FROM: MVCA Message No. 02

DATE:

WARNING:

HEAVY RAINS OVERNIGHT THREATEN LOW LYING AREAS ALONG THE MAITLAND RIVER AND ITS TRIBUTARIES. EXPECT POSSIBLE FLOODING IN

PLEASE ADVISE RESIDENTS IN THE FLOOD PRONE AREAS.

Received by: _____ . From: _____ . Time: _____ . Date: _____ .

FORWARD TO: SENT BY: TIME RECEIVED

APPENDIX “C”

FLOOD LINE MAPS / RESIDENT NOTIFICATION LIST

VILLAGE OF FORDWICH - SEE ATTACHED

VILLAGE OF GORRIE – SEE ATTACHED

VILLAGE OF WROXETER – SEE ATTACHED

APPENDIX “D”

LETTER

Date:

Dear Resident/Business Owner

The Maitland Valley Conservation Authority has identified portions of the Township of Howick as likely flood prone areas. Such areas are considered to be a flood damage centre and therefore, the risks and damages from flooding are considered high. Flood risks are not limited to any one time of year in this area.

In order to respond to a flood emergency, both the MVCA and the Township of Howick have prepared Flood Contingency Plans/Flood Emergency Plans. In the event of a flood, co-operation among the MVCA, Township and the residents and businesses is important.

The Township has distributed a Self-Help Advice brochure to you regarding floods. The brochure identifies what to do before and after a flood event. Take time to familiarize yourself with the brochure and prepare yourself and your family on what to expect and what to do should you be advised that a flood emergency may occur. Extra copies of the brochure are available at the Township Municipal Office. Also attached is a map of your village that identifies the flood prone areas.

If a flood event may to occur, MVCA will issue advisories and warnings through CKNK radio and local cable television stations. The Township will provide public information through this media as well. If you are asked to leave your home, please do so. The Township will make this request in the interest of public health and safety. At this time, the Howick Community Centre has been identified as the main evacuation centre in the event of a flood. You and your family may assemble at this location. A registration and inquiry centre will be established there as well.

Preparing for and responding to a community emergency requires all of us. Safeguard your home and family. Become prepared.

Yours truly,

Max Demaray
Reeve

Getting Prepared

1. Learn how to shut off the Power to your home (Hydro One).
2. Take any special precautions to safeguard your home utilities – consult suppliers now on procedures.
3. Purchase a battery-powered or crank radio so you can listen to instructions on the radio.
4. Prepare an emergency survival Kit.
5. Check your insurance coverage.

Flood Advisory or Warning Issued

1. Lead-time for a flood event in Howick is limited 4 to 6 hours. If time warrants remove small electrical appliances to upper levels, remove any toxic substances.
2. Evacuate if instructed to do so and take your emergency kit with you.
3. Make arrangements for pets, do not leave them behind. Pets will not be permitted in shelters.
4. If leaving area, take care, do not drive through water. You could be caught in fast-rising waters unexpectedly.

After the Flood

1. Municipal Officials and Public Health Officials will advise when the flood emergency has ended. Pre-arrangements for your accommodations during this time should be part of your own emergency plan. The Canada Mortgage and Housing Corporation can provide information about clean up and repair after flooding. Also, contact your insurance company.
2. Evacuees must wait for confirmation that their homes are suitable for re-occupancy. Inspections may be required for structural damage, on-site septic/sewage systems, unsafe health conditions, and electrical safety.