

FLOODING RESPONSE POLICY

Policy

The purpose of this policy is to establish procedures and responsibilities for the mobilization of City personnel for severe weather/potential flooding incidents. The City recognizes that the primary responsibility for preventing property from the risk of flooding rests with the property owner. It is also aware of the efforts put in by the City to notify property owners in flood risk areas of the risks they face and encourage them to plan their own arrangements to protect themselves and their properties.

Mitigation

The City supports this approach and urges those living within areas identified as being at risk from flooding to follow the advice of the Army Corp of Engineers. The City is concerned that, in the event of the threat of flooding to a number of properties in the community, it may not have the resources to protect every property and that priorities will have to be made. This could inevitably lead to some flooding to properties that, with some preplanned preventative measures by the occupant, could have been avoided or minimized. In view of limited resources in the event of a flood emergency, the City has determined that the most effective use of City resources will be to protect public facilities.

It must be emphasized that residents of Champlin who live in identified flood risk areas should not rely upon the City to respond to a threat of flooding to their property but should have in place their own flood protection plan.

Owners of properties that are susceptible to flooding are encouraged to check with their insurance agents to determine if they have adequate flood coverage, and to take such other precautions and preparations as deemed appropriate.

However, as a responsible authority, the City recognizes that the level of individual preparedness will vary enormously, and it is prudent to plan for some additional support to the local community. With this in mind, the City has developed the following procedure.

Preparedness

Incident Command System

The City of Champlin will utilize the National Incident Management System (NIMS), a nationwide standardized approach to incident management and response. NIMS establishes a uniform set of processes and procedures that emergency responders at all levels government will use to conduct response operations. This system provides the use of common terminology and command structure facilitates, and better flow of information and coordination between responding agencies.

Terminology

The following terms are used when describing floods:

Minor Flooding – minimal or no property damage, but possibly some public threat or inconvenience.

Moderate Flooding – some inundation of structures and roads near stream or river. Some evacuations of people and/or transfer of property to higher elevations are necessary.

Major Flooding – extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.

Record Flooding – flooding which equals or exceeds the highest stage or discharge at a given site during the period of record keeping.

Stage – level of the water surface in a river measured with reference to some datum.

Flow – volume of water passing a given point per unit of time.

Kilo Cubic Feet per Second (kcfs) – measurement of water flow equivalent to 1,000 cubic feet of water passing a given point for an entire second.

Flood Warning System

The City of Champlin Engineering Department will monitor one (1) gauge on the Mississippi River and one (1) gauge on the Elm Creek waterway during periods of possible flooding. The gauge readings can be found at:

<https://waterdata.usgs.gov/mn/nwis/current/?type=flow>

- The gauge on the Anoka-Champlin Bridge provides Mississippi River level. The station number is: 05283500.
- The gauge on the Elm Creek Dam provides Lower Mill Pond water level. The station number is: 05287890.

Watches and warnings are issued by the National Weather Service over the Emergency Alert System (EAS) and NOAA Tone-Alert Weather Radios.

During periods or forecast of severe weather which might produce heavy rains, or prolonged periods of rain, the Public Works Department will monitor the rainfall amounts from the rain gauge located on the City Hall Campus. The Emergency Operations Center may be activated when a flash flood/flood warning is received from the National Weather Service.

Depending on the amount of rainfall and rate of rise, specific actions will be taken and information about possible flooding in Champlin will be broadcast on the City website. In the event that a flooding event should occur in a short amount of time, notification to areas known to flood by public address systems in emergency vehicles and door-to-door.

Flood Threat Recognition System

Flood Categories of the Mississippi River at the Anoka-Champlin Bridge

Major Flood Stage:	841' (gauge reading: 17)
Moderate Flood Stage:	840' (gauge reading: 14)
Flood Stage:	838' (gauge reading: 12)
Action Stage:	836' (gauge reading: 9)

Historical Crests

1. 843.7' – 04/12/1965 (approx. gauge reading: 18)
2. 843.4' – 04/17/1965 (approx. gauge reading: 17.7)
3. 842.4' – 03/06/1984 (approx. gauge reading: 17.6)
4. 841.55' – 03/29/1957 (approx. gauge reading: 15.8)
5. 841.2' – 04/15/1952 (approx. gauge reading: 15.5)
6. 840.5' – 04/09/1997 (approx. gauge reading: 14.8)
7. 839.1' – 04/15/2001 (approx. gauge reading: 13.7)

Identification of flood hazards is identified through the following information:

- Topographical maps
- GIS mapping
- Historical events

Data collection, communications, and data analysis tools:

- On-site river gauges
- Satellite radar
- Internet access for weather and river levels
- Physical readings of the river level and rainfall totals conducted by the Public Works Department
- National Weather Service – <https://water.weather.gov/ahps/>
- Law enforcement communications system (monitored by Hennepin County Sheriff's Communication 24 hour a day)

In the event of deteriorating weather leading to the issue of severe weather warnings or flooding alerts that could potentially affect any part of the City, especially properties along the Mississippi River or Elm Creek waterways, the Police Department will monitor the threat through information passed on via Hennepin County Communications and the National Weather Service advisories.

Risk assessments will be undertaken and regularly updated. These assessments could be wide area or site specific. They could include information obtained from site visits by the Engineering/Public Works Departments or other professional partners.

Response

Flood Operations

The allocation of sandbags to individuals will depend upon a number of factors including the total number of sandbags available, an assessment of the viability of protecting the particular property with sandbags and demands from other emergency flood defense measures involving the use of sandbags that would protect a greater number of properties. The need to protect infrastructure assets e.g. roads, energy distribution sites, communication network sites, and/or City owned public buildings etc. are also likely to make demands on the City limited resources.

Should the need arise for sandbagging operations, sandbags and sand will be staged at various locations in the City known to need sandbagging assistance. The City will make every attempt to provide assistance with sand and sandbags for sandbagging operations. Request for sandbags can be made by calling 763-421-8100. The provision of sandbags and assistance by the Council under this policy will be free of charge. The City will not provide plastic sheeting to assist in the sandbagging operations.

In the event of the City's risk assessment for a defined area identifying the use of sandbags to be appropriate to minimize or mitigate the risk of flooding to residential, utility or commercial properties, the City may set up local sandbag collection centers.

When approved by the Emergency Management Director, periodic requests for volunteers will be made via the Public Information Officer (PIO) through local media sources (TV, Radio, City web site) as needed. These requests will ask volunteers to report to specific locations needing assistance and sign in at predetermined staging areas. This is necessary for safety and if a Presidential Disaster Declaration is made, tracking of the volunteer hours that the community provided in the flood fight efforts.

Possible volunteer recruitment organizations:

Champlin Park High School Students

Fire Department Personnel

North Hennepin Community & Technology College Students

General Public

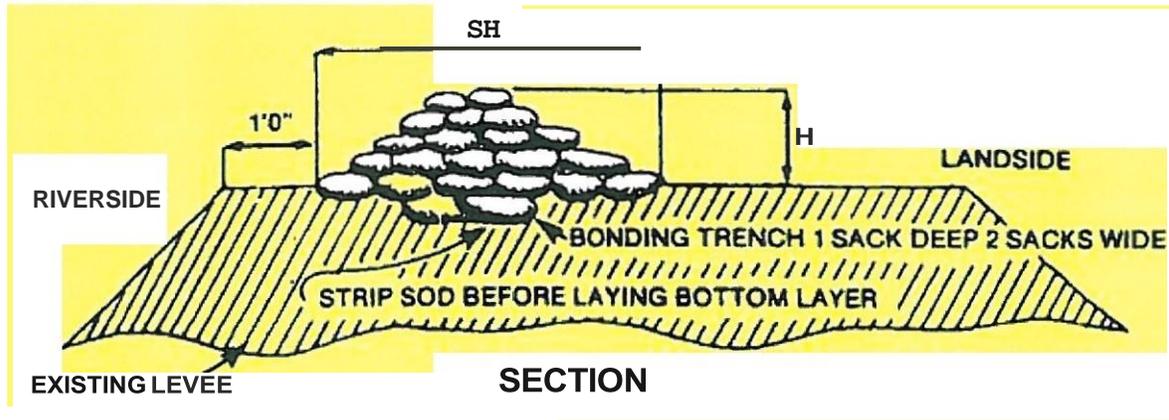
Proper Sandbagging Procedures

Sandbags are commonly used to cap levees. This is a time-tested method that has a proven track record. Sandbag caps are easily adaptable to a variety of conditions and are relatively resistant to wave action and erosion.

While properly filled and placed sandbags can be a simple, but effective way to reduce or prevent flood water damage, hundreds or thousands will be needed for even a modest project. Sandbag construction alone does not guarantee a water-tight seal but is acceptable in most situations. By utilizing plastic sheeting, a more effective water-tight seal can be achieved.



Filling sandbags is a two-person operation. One person should place the empty bag on the ground while the other person loads the sand. Do not try to hold the bag off the ground while filling. This could cause serious injury.



Fill the sandbag between one-half ($1/2$) to two-thirds ($2/3$) full. Each bag will weigh approximately 40-50 pounds. Bags can be tied or untied, if tied, fold opening under the bag. Place the opening towards the downstream direction.

If possible, dig a trench approximately 6" deep and 18" wide. Lay plastic sheeting from the trenched-out area to the stream side of area to be sandbagged. Lay sandbags in the trenched area first to secure the plastic sheeting. Determine how high you will need to sandbag for the desired protection. Once you've determined how high you need to go, multiply that figure by three (3), this will determine how wide the base needs to be. Stack bags in a pyramid shape, overlapping a portion of each previous row, stamp into place to eliminate voids.

Before you place the top row, pull the plastic sheeting up over the stream side of the sandbag levee and secure it by placing the top row of sandbags on top of it. This helps provide a water-tight barrier.

Caution should be utilized when stacking the sandbags. Individuals stacking the sandbags should wear life jackets in addition to other protective clothing. At night, individuals should wear reflective clothing and the area should be lighted.

Additionally, monitoring teams should check for problems and determine if there is time to repair any problems or if there is a need to evacuate. A long blast on an air horn or whistle is used to warn people to evacuate and move to higher grounds.

Evacuation

The first priority is the protection of human life. While there are many factors that may lead to an evacuation, information used from the National Weather Service forecast; rate of rise, crest and duration, are vital sources of information. This information can be monitored if individuals have tone alert weather radios. Additionally, any problems with flood fight efforts or lack of resources could lead to evacuation.

Lead times to possible evacuations could be anywhere from a few days to just minutes. Depending on the duration, warning information will be broadcast in the following manner: newspaper, Facebook, City website, television, and radio will provide updates on a daily basis if the duration is expected over a day or more; television and radio will provide updates as needed when only hours are predicted; radio, public address systems and door-to-door notification will be made if only a limited amount of time is expected.

Flood Impacts

Mississippi River (gauge reading)

838.8' (12.0) - Water begins flooding 411 Dayton Road Apartments parking lot and garage.

838' (10.0) - Water begins flooding residences at 1103 Mississippi Drive.

837' (9.0) - Water begins flooding Galloway Park.

835.9' (12.5) - Water begins flooding 11930 Mississippi Drive.

834' (10.0) - Water begins flooding Lower Mississippi Boat Launch.

Mississippi River Local Bench Marks

1. Anoka-Champlin Bridge - concrete ledge east side – 836.37
2. Galloway Park - iron pipe in lower level of park entrance road – 837.03
3. Mississippi Point Park – utility pole in picnic area – 835.94
4. 411 Dayton Road – utility pole in back parking lot, northeast corner – 838.84
5. 11903 Mississippi Drive – backyard step of residence, southside – 836.89

Elm Creek Waterway

857.0 – Water begins flooding west of Cartway Road at culvert.

850.4 – Water begins flooding roadway on West River Road.

849.0 – Water begins flooding residents along Lowell Road.

Elm Creek Waterway Local Bench Marks

1. Elm Creek Dam Weir – 846.20
2. Anoka-Champlin Bridge column, 3" concrete ledge, north of trail – 836.37
3. Cartway Road at culvert, top curb at culvert, west side – 855.52

Recovery

Cleanup after Flooding

Public Works is responsible for and has jurisdiction for all debris removal under the North Suburban Emergency Operations Plan. Under this plan, notification will be made to residents regarding sand, sandbags and debris:

- how to sort items
- where to put items
- when is pickup for items
- where/who to call for information