

VILLAGE OF BRADFORD
RESOLUTION NO. 15/16-07

ADOPTION OF THE NATURAL HAZARDS MITIGATION PLAN

ADOPTED BY THE VILLAGE BOARD
OF THE
VILLAGE OF BRADFORD

Published in pamphlet form by authority of the Village Board in the Village of Bradford,
Stark County, Illinois, this 8th day of February, 2016.

[NOTE: When a resolution is published in pamphlet form, the following certificate should be filled out by the Municipal Clerk.]

STATE OF ILLINOIS)
) SS
County of STARK)

CERTIFICATE

I, Diana Cobb, certify that I am the duly appointed and acting
Municipal Clerk of the Village of Bradford, Stark
County, Illinois.

I further certify that on February 8, 2016, the Corporate Authorities of
such municipality passed and approved Resolution No. 15/16-07, entitled

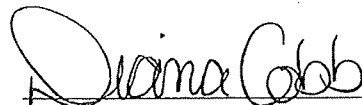
Adoption of the Natural Hazards Mitigation Plan

which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Resolution No. #15/16-07, including the Resolution and a
cover sheet thereof, was prepared, and a copy of such Resolution was posted in the municipal
building, commencing on February 8, 2016 and continuing for at least ten days
thereafter. Copies of such Resolution were also available for public inspection upon request in the
office of the Municipal Clerk.

DATED at Bradford, Illinois, this 11th day of February,
2016.

(SEAL)



Municipal Clerk

"This resolution shall be in full force and effect from and after its passage, approval and publication in
pamphlet form as provided by law."

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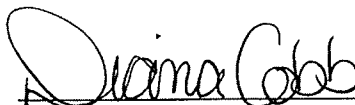
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Resolution # 15/16-07

Adoption of the Natural Hazards Mitigation Plan

WHEREAS, the Bureau, LaSalle, Marshall, Putnam, and Stark Counties Natural Hazards Mitigation Plan has been prepared in accordance with FEMA requirements at 44 C.F.R. 201.6; and,

WHEREAS, the Village of Bradford has participated in the preparation of a multi-jurisdictional plan, the Bureau, LaSalle, Marshall, Putnam, and Stark Counties Natural Hazards Mitigation Plan; and,

WHEREAS, the Village of Bradford is a local unit of government that has afforded the citizens an opportunity to comment and provide input in the Plan and the actions in the Plan; and,


WHEREAS, the Village of Bradford has reviewed the Plan and affirms that the Plan will be updated no less than every five years.

NOW THEREFORE, BE IT RESOLVED that the Village of Bradford adopts the Bureau, LaSalle, Marshall, Putnam, and Stark Counties Natural Hazards Mitigation Plan and the Village of Bradford Community Risk Assessment as provided in Chapter 10 of the plan, as this jurisdiction's Multi-Hazard Mitigation Plan, and resolves to execute the actions in this Plan.

ADOPTED this 8th day of Feb 2016.



Dianna Cobb, Village Clerk



Henry Waldinger, Village President

(SEAL)

Community Risk Assessment

Village of Bradford

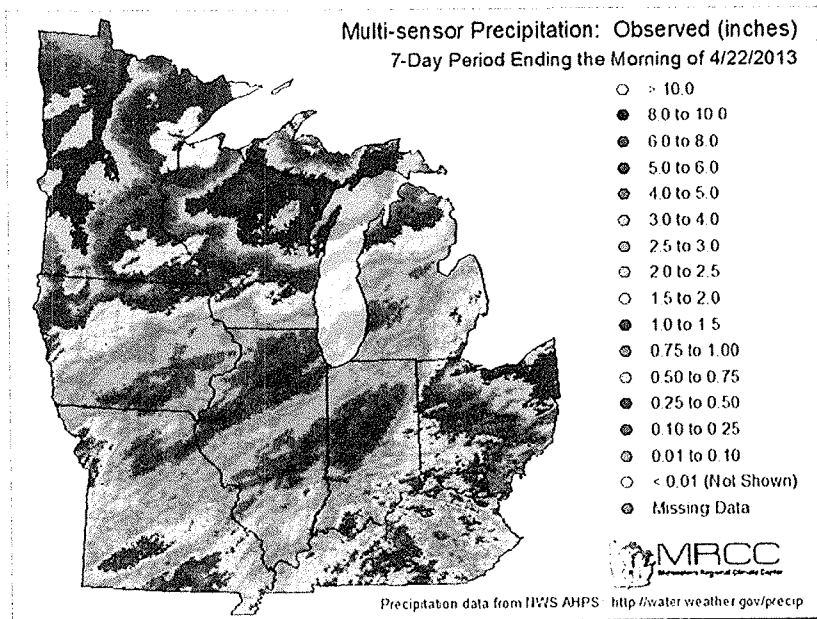
Risk Assessment								
Communities	Tornadoes	Floods	Winter Storms	Extreme Temps.	Dangerous Winds	Lightning	Drought	Hail
Stark County	Guarded	Elevated	High	Elevated	High	Guarded	Elevated	Elevated
Bradford	Guarded	Guarded	High	Elevated	Elevated	Guarded	Elevated	Guarded

Location: The Village of Bradford is located 16.7 miles northeast of the City of Toulon (via Illinois Routes 91 and 93) in Stark County.

Population: 768 (2010 Census)

Major Storm Events since February 2008:

- July 2012 – October 2012 Drought: The county experienced a drought that caused \$15.9 million in crop damage.
- April 17, 2013 – April 19, 2013 Flood: A slow moving storm dropped upwards of 10 inches of rain across central and southeast Illinois. The graphic to the right shows precipitation amounts from the storm. Water entered several basements throughout the village.



- May 20, 2013 Dangerous Wind: Severe thunderstorms developed east of the Mississippi River after an upper-level disturbance hit a cold front. As the storm approached the region, winds between the City of Wyoming and the Village of Bradford reached 60 miles per hour. Localized rain amounts of up to two (2) inches were reported. Trees and power lines were knocked down as a result of the storm.

Tornado Risk: The Village of Bradford has a “Guarded” risk of tornadoes. Nine (9) tornadoes have been reported in Stark County in the past 50 years. However, none have touched down in Bradford during this time period. The village has tornado sirens, but does not have tornado shelters.

Flood Risk: The Village of Bradford has a “Guarded” risk of flooding. FEMA Flood Insurance Rate Maps (FIRMs) for the village have not been digitalized.

Community Risk Assessment

Type(s) of Flooding: Basement Flooding/ Riverine Flooding

Basement backups are often the result of overwhelmed storm and sanitary sewer systems. The village's sewers are not separate. A smoke test found extensive inflow and infiltration issues.

Coopers Defeat Creek, located on the south end of the village, has flooded homes in the past.

Area of Risk: Homes throughout the village are at risk of having basement backups. Coopers Defeat Creek (Illinois Route 40) south of the village.

Critical Facilities at Risk: None.

National Flood Insurance Program Participant: Yes

Community Rating System Participant: No

Winter Storm Risk: The Village of Bradford has a "High" risk of experiencing winter storms including blizzards, heavy snowstorms, and ice storms. Early frost and freeze events are another form of winter weather that are factored into determining the winter storm risk level. There have been 43 significant winter storms in Stark County since 1965. Data for individual communities was not reported.

Extreme Temperatures Risk: Extreme heat and cold can have detrimental effects on the human body including illness and death. Exposure to extreme heat can lead to heat rash, exhaustion, and stroke. When exposed to extremely cold temperatures, the human body loses heat quickly. Unable to replace utilized energy, the body is susceptible to hypothermia and frostbite. Extreme heat and cold can also be problematic for public water systems. Although water main breaks are thought to occur more frequently during the winter, they can happen anytime of the year. According to AccuWeather.com, prolonged hot and cold temperatures cause the ground to shift more abruptly, which leads to water main breaks. The age and condition of water mains can also play a factor. The Village of Bradford has an "Elevated" risk of experiencing extreme temperatures.

Dangerous Winds Risk: This category includes thunderstorm winds, high winds, and strong winds. Stark County has a "High" risk of having dangerous winds that can lead to property damage and crop damage. During high winds, people are at a greater risk for injury and death as a result of flying debris such as trees and power lines. The Village of Bradford has an "Elevated" risk of dangerous winds.

Lightning Risk: Lightning is caused by the buildup and release of atmospheric electricity. Whenever there is a thunderstorm, lightning has occurred. Lightning can strike anywhere and has the potential to cause fatalities, injury, and property damage. Lightning data for the county is not available. Therefore, all communities within Stark County have a "Guarded" risk of experiencing damages as a result of lightning.

Drought Risk: Drought is caused by a lack of precipitation over an extended period of time. A prolonged drought can have a devastating impact on a region's economy and quality of life. The Village of Bradford has an "Elevated" risk of drought.

Hail Risk: Hailstones can be found within the middle and upper portions of most thunderstorms. Hailstones are compacted layers of ice and snow that look like snowballs. Hailstones may be as small as

Community Risk Assessment

marbles or as large as softballs. Hailstones cause damage to property and crops. Since 1965, there have been 37 hail events with hail 0.75 inches or larger. The Village of Bradford has a “Guarded” risk of hail.

Additional Information:

- The village does not have a comprehensive plan.
- Zoning for the village is controlled by Stark County.
- The village does not have a storm water management ordinance.
- First Baptist Church can serve as a heating and cooling center during extreme temperatures.
- When the village loses power, the water system and sanitary sewer system are not operational.

Mitigation Activities:

- 1. Mitigation Strategy:** Purchase backup generators for the waste water treatment plant and water treatment plant.
Responsible Entity or Person: Village Board
Priority: Very High
Cost: Generators
Revenue Source: Local Funds
Resources: N/A
Benefits: Avoid loss of power at both treatment plants during power outages.
Deadline: 2 Years
- 2. Mitigation Strategy:** Develop and implement an outreach program to assist residents with disconnecting sump pumps from downspouts.
Responsible Entity or Person: Village Board
Priority: High
Cost: Staff Time
Revenue Source: Local Funds
Resources: Programs implemented in other communities.
Benefits: Minimize basement backups and avoid overwhelming the waste water treatment plant during heavy periods of rain.
Deadline: 2 Years
- 3. Mitigation Strategy:** Engage in a regional discussion on the implementation of best practices for activating early warning sirens during storm events.
Responsible Entity or Person: A regional group consisting of County Emergency Management Agencies for Bureau/ LaSalle/ Marshall/ Putnam/ and Stark Counties, Local Fire Departments, Fire Protection Districts, County Sheriff's Departments, Local Police Departments, and Local Officials
Priority: Very High
Cost: Staff Time
Revenue Source: Local Funds
Resources: NOAA/ Illinois Emergency Management Agency/ Policies for other communities
Benefits: Regional guidelines on activating early warning sirens can lessen public confusion and save lives.

Community Risk Assessment

Deadline: 1 Year

4. **Mitigation Strategy:** Develop and adopt a Comprehensive Land Use Plan.
Responsible Entity or Person: Village Board
Priority: Low
Cost: Staff Time/ Planning Consultant
Revenue Source: Local Funds/ State and Federal Funding
Resources: Planning Consultant/ Residents/ Public Officials/ Other Stakeholders
Benefits: Provide the community with an understanding of the village's history, demographics, land use, transportation, and potential for future development.
Deadline: 3 Years
5. **Mitigation Strategy:** Participate in the development of a building inspector training program with neighboring communities and/or a mutual agreement to share trained building inspectors.
Responsible Entity or Person: Village Board
Priority: Medium
Cost: Staff Time
Revenue Source: Local Funds
Resources: International Code Council
Benefits: Communities that are unable to afford a full-time building inspector will have a resource for building inspections.
Deadline: 3 Years
6. **Mitigation Strategy:** Identify and promote heating and cooling center locations to residents and ensure that such facilities are compliant with the American Disabilities Act (1990) 2010 Standards for Accessibility Design Requirements.
Responsible Entity or Person: Village Board
Priority: High
Cost: Staff Time/ Engineer Inspection/ Promotional Expenses
Revenue Source: Local Funds
Resources: 2010 Standards for Accessibility Design Requirements/ Village Engineer
Benefits: Provide a safe environment to residents during extreme periods of cold and heat.
Deadline: 1 Year
7. **Mitigation Strategy:** Participate in regional activities and encourage the public to be involved.
Responsible Entity or Person: Village Board and Staff
Priority: Low
Cost: Staff Time
Revenue Source: Local Funds
Resources: Stark County Emergency Management Agency/ North Central Illinois Council of Governments
Benefits: Collaboration with neighboring communities provides opportunities to share resources and ideas.
Deadline: 1-5 Years (Ongoing)

Community Risk Assessment

8. **Mitigation Strategy:** Work with regional partners to share resources and to create opportunities for the public to be engaged and informed about the risks of natural hazards and mitigation activities.

Responsible Entity or Person: Village Board

Priority: High

Cost: Staff Time

Revenue Source: Local Funds

Resources: Other communities/ North Central Illinois Council of Governments

Benefits: Collaboration provides opportunities to share ideas and resources.

Deadline: 1-5 Years (Ongoing)