

## Northfield

### Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
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### Jurisdiction Profile

The following is a summary of key information about the jurisdiction and its history:

**Date of Incorporation:** 1926

**Current Population:** The 2020 U.S. Census population was 5,751. The 2022 U.S. Census estimate indicated the population was 5,578.

**Population Growth:** The overall population has increased by 2.88% between 2018 and 2022.

**Location and Description:** Located 17 miles north of the City of Chicago via a highway or Commuter Train Northfield has easy access to two of Chicago's biggest highway systems I94 and I-294. I-94 runs through the town. Northfield is bordered by the following towns, to the east is Winnetka, to the south Wilmette, to the west Glenview, and to the north Northbrook. Northfield is home to the Corporate Offices of Kraft Foods Inc

**Brief History:** When settlers first arrived, Northfield was a remote swamp. Northfielders were often called the "river folks" by residents of neighboring communities because of their struggles to get back and forth to church or the beach in their wagons, crossing the Skokie Lagoons and Middle Fork branch of the Chicago Rivers. From this small beginning, the Village began to attract other families who liked its small size and country atmosphere.

**Climate:** The climate of Northfield and the Chicago area is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and humid summers; pleasant autumns; and cold winters. Annual precipitation is average and reaches its lowest points in the months of January and February, and peaks in the months of May and June. Winter proves quite variable. Seasonal snowfall in the Village has ranged from 9 – 90 inches. The daily average temperature in January at Midway Airport is 24.8 °F (-4.0 °C), and temperatures often stay below freezing for several consecutive days or even weeks in January and February. Temperatures drop to or below 0 °F (-18 °C) on 5.5 nights annually at Midway and 8.2 nights at O'Hare. Spring in the Chicago area is perhaps the area's wettest and most unpredictable season. Winter-like conditions can persist well into April and

even occasionally into May. Thunderstorms are especially prevalent in the springtime as the area's lakeside location makes it a center of conflicts between large volumes of warmer and colder air, triggering many kinds of severe weather. Temperatures vary tremendously in the springtime; March is the month with the greatest span between record highs and lows. On a typical summer day, humidity is usually moderately high and temperatures ordinarily reach anywhere between 78 and 92 °F (26 and 33 °C). The extreme heat that the Chicago area is capable of experiencing during the height of the summer season can persist into the autumn season. Temperatures have reached 100 degrees high and subzero lows below –18 °C. Fall can bring heavy thunderstorms, many of which are capable of producing flooding. The average first accumulating snow occurs around Nov 19.

**Governing Body Format:** The Village of Northfield is a home rule municipality governed by a Village President and six trustees which operates under a council-manager form of government, in which a board of six trustees and a president are elected at large on a rotating four-year election cycle. Village operations and administration are run by a professional manager, who is hired at the discretion of the Village board. The village operates 6 departments including Community Development, Finance, Fire-Rescue, Office of the Village Manager/Village Clerk, Police Department, and Public Works Department.

**Development Trends:** The Village has formed a committee to formulate redevelopment alternatives for the Village Center district. The goal of the task force is to create a viable plan to enhance the area as a pedestrian-oriented retail and service core for the Northfield community. In 2019, there was an application submitted for Walden Lane Planned Unit Development to build single-family homes.

**Changes in Community Priorities:** There have been no significant changes in priority regarding the hazards that could potentially impact the community or changes in priority regarding resilience.

## Capability Assessment

The assessment of the jurisdiction's legal and regulatory capabilities is presented in the *Legal and Regulatory Capability Table* below. The assessment of the jurisdiction's fiscal capabilities is presented in the *Fiscal Capability Table* below. The assessment of the jurisdiction's administrative and technical capabilities is presented in *Administrative and Technical Capability Table* below. Information on the community's National Flood Insurance Program (NFIP) compliance is presented in the *National Flood Insurance Program Compliance Table* below. Classifications under various community mitigation programs are presented in the *Community Classifications Table* below.

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
<b>Codes, Ordinances &amp; Requirements</b>					
Building Code	Yes	No	No	Yes	NVC, Appendix C, Articles IV, V, VI and VII, 9/17/2013

					There are plans to update the building codes, possibly by fall
Zonings	Yes	No	No	Yes	NVC, Appendix A, 9/17/2013
Subdivisions	Yes	No	No	No	NVC, Appendix B, 9/17/2013
Stormwater Management	Yes	No	Yes	Yes	<i>State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA.</i> NVC, Chapter 7, Article IV, 9/17/2013
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	
Site Plan Review	No	No	No	No	
Public Health and Safety	Yes	No	Yes	Yes	Cook County Board of Health. NVC, Chapter 8, 9/17/2013
Environmental Protection	Yes	No	No	No	NVC, Chapter 10, 9/17/2013
<b>Planning Documents</b>					
General or Comprehensive Plan	Yes	No	No	No	Northfield Vision Plan, 1999
<i>Is the plan equipped to provide integration to this mitigation plan?</i>					Yes, the plan includes a redevelopment component.
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	MWRD	No	Regional stormwater impacts are managed by MWRD. The Village lies

					within the North Branch of the Chicago River watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
Capital Improvement Plan	No	No	No	No	
<i>What types of capital facilities does the plan address?</i>					N/A
<i>How often is the plan revised/updated?</i>					N/A
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development-related programs and incentives including tax incentives offered through the Cook County 6b program. The Comprehensive Plan includes an ED component
Shoreline Management Plan	No	No	No	No	
<b>Response/Recovery Planning</b>					
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County EMRS
Threat and Hazard Identification	No	No	Yes	No	Cook County EMRS

and Risk Assessment					Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County EMRS
Post-Disaster Recovery Plan	No	No	Yes	Yes	Cook County EMRS
Continuity of Operations Plan	No	No	Yes	No	Cook County EMRS
Public Health Plans	No	No	Yes	No	Cook County DPH

<b>TABLE: FISCAL CAPABILITY</b>	
<b>Financial Resources</b>	<b>Accessible or Eligible to Use?</b>
Community Development Block Grants	Yes
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Other	Yes

<b>TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY</b>		
<b>Staff/Personnel Resources</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development Department
Engineers or professionals trained in building or infrastructure construction practices	Yes	Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Village Engineer
Staff with training in benefit/cost analysis	No	
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Village Manager
Grant writers	Yes	Community Development Department

<b>TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE</b>	
What department is responsible for floodplain management in your jurisdiction?	Community Development
Who is your jurisdiction's floodplain administrator? (department/position)	Village Engineer

Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date of adoption of your flood damage prevention ordinance?	7/15/08
When was the most recent Community Assistance Visit or Community Assistance Contact?	2/22/06
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	Yes
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No Maybe

### **NFIP Participation Activities**

Maintaining compliance under the NFIP is an important component of flood risk reduction. All planning partners that participate in the NFIP have identified actions to maintain their compliance and good standing. Cook County entered the NFIP on April 15, 1981. Structures permitted or built in the County before then are called “pre-FIRM” structures, and structures built afterward are called “post-FIRM.” The insurance rate is different for the two types of structures. The effective date for the current countywide FIRM is August 19, 2008. This map is a DFIRM (digital flood insurance rate map). The communities in Cook County that participate in the NFIP are shown in **Table: NFIP Participating Communities in Cook County** in **Volume I** of the Cook County MJ-HMP.

The NFIP makes federally-backed flood insurance available to homeowners, renters, and business owners in participating communities. The communities in Cook County that participate in the NFIP and their "Policies in Force," "Total Coverage," and "Total Written Premiums" are shown in **Table: Cook County Flood Insurance Policies** in **Volume I** of the Cook County MJ-HMP.

The following are NFIP-related activities completed by our community:

- Our staff provides the following services: permit reviews, GIS, inspections, and engineering capability.
- Our community teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars.
- Our community enforces local floodplain regulations and monitors compliance.
- Our floodplain development regulations meet or exceed Federal Emergency Management Agency (FEMA) or State minimum requirements.

### **Substantial Improvement Rule and the Substantial Damage Rule**

The IDNR/OWR has developed a model ordinance for floodplain management, which has been adopted by most communities in Illinois. The ordinance includes the minimum requirements an NFIP participating jurisdiction must adopt and enforce, as well as additional higher regulatory requirements. The optional, higher regulatory standards include a minimum of one foot of freeboard above the base flood elevation and cumulative tracking of damage repairs and improvements to establish substantial damage and substantial improvement compliance. Some jurisdictions have chosen to exceed the requirements of the model ordinance and have adopted more restrictive ordinances. This is most common in the communities in northeastern Illinois.

*Existing Municipal Code:*

## Section 7-75 Definitions

**SUBSTANTIAL IMPROVEMENT.** Any repair, reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either: 1) before the improvement or repair is started, or 2) if the structure has been damaged from any source, and is being restored, before the damage occurred. This term includes the restoration of a structure to its pre-damaged condition when the cost would equal or exceed fifty percent (50%) of the market value at the time immediately before the damage occurred, regardless of the actual repair work performed. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural parts of a building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either: 1) any project for improvement of a structure to comply with any existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or 2) any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

## Section 7-80 Occupation and Use of Identified Floodways

This Section applies to proposed development, redevelopment, site modification, or building modification within a regulatory floodway. No person, firm, corporation, or governmental body not exempt by state law shall commence any development in a floodway without first obtaining a permit from DWR. All development shall also meet the requirements of Section 7-82 of this Article.

No development of any kind or nature shall be permitted within the regulatory floodway except as follows: (Ord. 96-869, 1-22-1996) (1) Encroachments, including fill, new construction, substantial improvements, and other development within the regulatory floodway are prohibited unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the Village during the occurrence of the base flood discharge. All new construction and substantial improvements in zones V1-30 and VE, and also zone V if base flood elevation data is available, on the Village's FIRM, must be elevated on pilings and columns so that: a) the bottom of the lowest horizontal structure member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and b) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state or Village building standards. (Ord. 05-1234, 3-15-2005)

## Section 7-81 Permitting Requirements Applicable to all Special Floodplain Areas

In addition to the requirements found in Sections 7-80 and 7-81 of this Article for development in flood fringes and regulatory floodways, the following requirements shall be met. (Ord. 96-869, 1-22-1996)

(3) Protecting Buildings. All buildings located within a 100-year floodplain or a special flood hazard area shall be protected from flood damage below the flood protection elevation in the following situations: (a) Construction or placement of a new building. (Ord. 96-869, 1-22-1996) (b) A substantial improvement or structural alteration to an existing building that increases the first-floor area by more than twenty percent (20%), or the building market value by more than fifty percent (50%). The value of improvements and alterations shall be calculated cumulatively over the most recent ten (10) year period. (Ord. 17-1682, 7-18- 2017)

Their ordinance did not include substantial damage rule provisions; future updates will consider the inclusion of these rules as applicable and as appropriate.

<b>TABLE: COMMUNITY CLASSIFICATIONS</b>			
	<b>Participating?</b>	<b>Classification</b>	<b>Date Classified</b>
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	N/A
Public Protection/ISO	Yes	Unknown	N/A
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	Yes	Participating	1984

### **Opportunities to Expand and Improve Capabilities**

At this time, the municipality did not include or identify any opportunities to expand and improve capabilities. Plans will be updated in the future should this change.

### **Plan Integration**

The capability assessment describes opportunities to "link" or integrate the mitigation plan into other planning mechanisms. The process and mechanism to identify opportunities to integrate the Cook County MJ-HMP into other planning mechanisms will occur during the Annual Update Process and be reflected in the Jurisdictional Annual Report each year. Specific plan integration opportunities will include:

- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the Comprehensive Plan.
- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the jurisdiction's land use plans, zoning, and subdivision codes.

### **Emergency Plan Integration:**

Cook County EMRS is supporting communities to develop and update their respective Emergency Operations Plans, Continuity of Operations Plan/Continuity of Government Plan, and Recovery Plan in 2024. This is an ongoing countywide initiative and is being implemented in all municipalities.

### **Emergency Operations Plan (EOP)**

An EOP template was created for all municipalities. The 2019 Cook County MJ-HMP and the hazards in the mitigation plan have been integrated into the Situation and Assumptions section of the EOP.



Within that section, the natural hazards based on the 2019 MJ-HMP were added in the Initial Analysis and Assessment and Identification of Hazards section of the EOP. The hazards in the 2019 plan and the 2024 MJ-HMP did not change apart from adding wildfires for the Forest Preserve and unincorporated areas of the County. Future updates of the EOP will take into consideration any additional new natural hazards that are added to subsequent updates to the MJ-HMP.

#### Continuity of Operations Plan (COOP)

The Continuity of Operations Plan (COOP) for the municipality includes a Situation section that is based on the 2019 Cook County MJ-HMP jurisdictional annex, and specifically the hazards identified in the annex. The COOP-specific risk assessment is hazard-specific and based on the likelihood of occurrence and severity of impact.

#### Recovery Plan

The goals of the Recovery Plan were developed to align with the 2019 Cook County MJ-HMP, and specifically prioritize the responsibility of officials under this plan to save lives, protect property, relieve human suffering, sustain survivors, repair essential facilities, restore services, and protect the environment. The plan acknowledges that hazard mitigation is an important priority and consideration during the rebuilding process.

## **Jurisdiction-Specific Natural Hazard Event History**

The information provided below was solicited from the jurisdiction and supported by NOAA and other relevant data sources.

The *Natural Hazard Events Table* lists all past occurrences of natural hazards within the jurisdiction. Repetitive flood loss records are as follows:

- Number of FEMA-Identified Repetitive Loss Properties: 21 (15 Single Family, 6 Two-Four Family Residence)
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 1

### **Federal Disasters Declared**

Disaster Declaration Number	Date Declared	Event
DR-227	4/25/1967	Tornado
DR-351	9/4/1972	Flood
DR-373	4/26/1973	Flood
DR-509	6/18/1976	Severe Storm(s)
DR-643	6/30/1981	Severe Storm(s)
DR-776	10/7/1986	Flood
DR-798	8/21/1987	Flood
DR-997	7/9/1993	Flood
DR-1129	7/25/1996	Severe Storm(s)
DR-1188	9/17/1997	Severe Storm(s)
DR-1729	9/25/2007	Severe Storm(s)

DR-1800	10/3/2008	Severe Storm(s)
DR-1935	8/19/2010	Severe Storm(s)
DR-1960	3/17/2011	Snow
EM-3068	1/16/1979	Snow
EM-3134	1/8/1999	Snow
EM-3161	1/17/2001	Snow
EM-3230	9/7/2005	Hurricane – Katrina Evacuation
EM-3435	3/13/2020	Biological
DR-4116	5/10/2013	Flood
DR-4489	3/26/2020	Biological
DR-4728	8/15/2023	Severe Storm(s)
DR-4749	11/20/2023	Flood

### State Disaster Declarations

Date Declared	Event
7/26/2010	Severe Storms, High Winds, Torrential Rain
1/31/2011	Winter Weather
4/25/2011	High Wind, Tornadoes, Torrential Rain
5/25/2011	
4/18/2013	Severe Storms, Heavy Rainfall, Flooding, Straight-line Winds
4/20/2013	
4/21/2013	
4/25/2013	
4/30/2013	
1/6/2014	Heavy Snowfall, Frigid Temperatures
7/12/2017	Thunderstorms, Heavy Rainfall, Flooding
7/14/2017	
1/29/2019	Winter Storm
2/6/2020	Severe Storms
3/12/2020 – present (reissued monthly)	COVID-19
2/16/2021	Winter Storms
2/1/2022	Winter Storms
8/1/2022 (reissued monthly through 10/28/2022)	Monkeypox

**TABLE: NATURAL HAZARD EVENTS**

Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment/ Event Narrative
Flash Flood	-	8/18/2016	-
Flash Flood	-	7/23/2016	-
Severe Winter Weather	1960-IL	3/17/2011	\$22,00
Severe Weather/Flood		3/10/2009	After heavy rains from March 8th through March 10th, flooding occurred across many parts of Northfield, including yard

			and road flooding as well as basement flooding.
Severe Storm/Flood	1800-IL	10/15/2008	\$33,800
Severe Summer Weather	1729-IL	9/25/1997	\$135,000

### **Jurisdiction-Specific Hazards: Vulnerabilities and Impacts**

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2024 Cook County Multi-Jurisdictional Hazard Mitigation Plan Update. This section only addresses the hazards and their associated impacts that are **relevant** and **unique** to the municipality.

**Flood:** The Village of Northfield has five (5) flood-prone areas, including, Winnetka, Latrobe, and Wagner Roads, Jeffery Middlefork, and Edens Expressway at Winnetka. We have 2 small rivers in town and the Skokie Lagoons.

**Extreme Heat:** Our elderly population ([12.6% of the population is over 65](#)) is vulnerable to the impacts of extreme heat.

**Extreme Cold:** Our elderly population is vulnerable to the impacts of extreme cold.

**Ice Storms:** Our elderly population is vulnerable to the impacts of ice storms.

Indicator	Number	Percent
Families in poverty	181	5.3%
People with disabilities	887	7.4%
People over 65 years	2,787	23.1%
People under 5 years	779	6.5%
People of color	2,560	21.2%
Black	246	2%
Native American	0	0%
Hispanic	650	5.4%
Difficulty with English	115	1%
Households with no car	196	4.3%
Mobile homes	0	0%

*Data are from the U.S. Census Bureau, American Community Survey. See methods for more information.*

The community evaluated whether vulnerability, and subsequently the potential impacts, in hazard-prone areas had increased, decreased, or remained the same for each natural hazard identified in this Hazard Mitigation Plan. Climate change, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard area or is not built to the updated building codes, it may increase the community's vulnerability to future hazards and disasters. On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics were taken into consideration when assessing development trends.

### **Jurisdiction-Specific Climate Change Vulnerability and Impacts**

The table below outlines if climate change, as assessed by the local planning team, has increased or decreased the municipality's vulnerability/exposure, and thereby the potential impacts, to each natural hazard over the past five (5) years (**Current Vulnerability**), and the effect of climate change in the future probability of occurrence and impacts (**Future Vulnerability**) from each natural hazard.

Future studies are needed to better understand the impact of climate change on the community's assets.

Hazard	Vulnerability
<b>Current Vulnerability</b>	
Dam and Levee Failure	Remained the Same
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Remained the Same
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Remained the Same
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Remained the Same
Tornado	Remained the Same
Wildfire (Wildfire Smoke)	Remained the Same

Hazard	Vulnerability
<b>Future Vulnerability</b>	
Dam and Levee Failure	No Change is Anticipated
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
Flood (Riverine, Urban, Shoreline)	No Change is Anticipated
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	No Change is Anticipated
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	No Change is Anticipated
Tornado	No Change is Anticipated
Wildfire (Wildfire Smoke)	No Change is Anticipated

### **Jurisdiction-Specific Changes (or Expected Changes) in Development Trends in Hazard-Prone Areas**

The table below outlines if development, as assessed by the local planning team, over the past five (5) years (**Current Vulnerability**) has increased or decreased the jurisdiction's vulnerability/exposure, and thereby the potential impacts, to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts (**Future Vulnerability**) from these natural hazards.

Hazard	Vulnerability
<b>Current Vulnerability</b>	
Dam and Levee Failure	Remained the Same
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Remained the Same
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Remained the Same
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Remained the Same
Tornado	Remained the Same
Wildfire (Wildfire Smoke)	Remained the Same

Hazard	Vulnerability
<b>Future Vulnerability</b>	
Dam and Levee Failure	No Change is Anticipated
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
Flood (Riverine, Urban, Shoreline)	No Change is Anticipated
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	No Change is Anticipated
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	No Change is Anticipated
Tornado	No Change is Anticipated
Wildfire (Wildfire Smoke)	No Change is Anticipated

Our community does not anticipate future major assets may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan. Any new assets (e.g., new construction in hazard-prone areas) will be constructed to adhere to the latest building codes and standards, and mitigation to protect them from identified and anticipated hazards, especially those that are expected to increase due to climate change.

## Hazard Risk Ranking

The *Hazard Risk Ranking Table* below presents the ranking of the hazards of concern. Hazard area extent and location maps are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan and are considered to be adequate for planning purposes.

<b>TABLE: HAZARD RISK RANKING</b>	
Rank	Hazard Type
1	Severe Weather
2	Severe Winter Weather
3	Flood
4	Tornado
5	Earthquake
6	Drought
7	

## New Mitigation Actions

Northfield did not have any new mitigation actions identified during the 2024 update.

## Ongoing Mitigation Actions

During the 2024 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

### Action N-4.3

Mitigation Action #3: Middle Fork Channel Improvements.					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> \$5.1 Million; High	<b>Potential Funding Source:</b> BRIC, HMGP, Bonds, MWRD-Phase II	<b>Estimated Projected Completion Date:</b> Short-term	<b>Hazard(s) Mitigated:</b> Flooding, Severe Weather
<b>Year Initiated</b>		2014			
<b>Applicable Jurisdiction</b>		Village of Northfield			
<b>Applicable Goal</b>		1,2,3			
<b>Applicable Objective</b>		1, 2, 9			
<b>Cost Analysis (Low, Medium, High)</b>		Low			
<b>Priority and Level of Importance (Low, Medium, High)</b>		High			
<b>Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)</b>		Medium			
<b>Action/Implementation Plan and Project Description:</b>					
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b>		O			

<b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	
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**Action N-4.4**

<b>Mitigation Action #4: Willow Road Flood Barrier.</b>					
<b>Lead Agency/Department Organization:</b> Public Works	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> \$3 Million; High	<b>Potential Funding Source:</b> BRIC, HMGP, Bonds, MWRD-Phase II	<b>Estimated Projected Completion Date:</b> Long-term	<b>Hazard(s) Mitigated:</b> Flooding, Severe Weather
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Northfield				
<b>Applicable Goal</b>	1,2,3				
<b>Applicable Objective</b>	1, 2, 9				
<b>Cost Analysis (Low, Medium, High)</b>	High				
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium				
<b>Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)</b>	Medium				
<b>Action/Implementation Plan and Project Description:</b>					
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	O				

## Action N-4.5

Mitigation Action #5: Winnetka-Meadowview Flood Barrier.					
<b>Lead Agency/Department Organization:</b> Public Works	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> \$2.6 Million; High	<b>Potential Funding Source:</b> BRIC, HMGP, Bonds, MWRD-Phase II	<b>Estimated Projected Completion Date:</b> Long-term	<b>Hazard(s) Mitigated:</b> Flooding, Severe Weather
<b>Year Initiated</b>		2014			
<b>Applicable Jurisdiction</b>		Village of Northfield			
<b>Applicable Goal</b>		1,2,3			
<b>Applicable Objective</b>		1, 2, 9			
<b>Cost Analysis (Low, Medium, High)</b>		High			
<b>Priority and Level of Importance (Low, Medium, High)</b>		Medium			
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)		Medium			
<b>Action/Implementation Plan and Project Description:</b>					
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed		O			

## Action N-4.7

## Mitigation Action #7: Winnetka Road Storm Sewer.



<b>Lead Agency/Department Organization:</b> Public Works	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> \$2.5 Million; High	<b>Potential Funding Source:</b> BRIC, HMGP, Bonds, MWRD-Phase II	<b>Estimated Projected Completion Date:</b> Long-term	<b>Hazard(s) Mitigated:</b> Flooding, Severe Weather
<b>Year Initiated</b>		2014			
<b>Applicable Jurisdiction</b>		Village of Northfield			
<b>Applicable Goal</b>		1,2,3			
<b>Applicable Objective</b>		1, 2, 9			
<b>Cost Analysis (Low, Medium, High)</b>		High			
<b>Priority and Level of Importance (Low, Medium, High)</b>		Medium			
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)		Medium			
<b>Action/Implementation Plan and Project Description:</b>					
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed		O			

#### Action N-4.8

Mitigation Action #8: Sunset Ridge - Meadowbrook Storm Sewer.					
<b>Lead Agency/Department Organization:</b> Public Works	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> \$1.4 Million; High	<b>Potential Funding Source:</b> BRIC, HMGP, Bonds,	<b>Estimated Projected Completion Date:</b>	<b>Hazard(s) Mitigated:</b> Flooding, Severe Weather

			MWRD-Phase II	Long-term	
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Northfield				
<b>Applicable Goal</b>	1,2,3				
<b>Applicable Objective</b>	1, 2, 9				
<b>Cost Analysis (Low, Medium, High)</b>	High				
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium				
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	Medium				
<b>Action/Implementation Plan and Project Description:</b>					
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	O				

**Action N-4.9**

<b>Mitigation Action #9: Where appropriate, support retrofitting, purchasing, or relocating structures in hazard-prone areas to prevent future damage. Give priority to properties with exposure to repetitive losses.</b>					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> High	<b>Potential Funding Source:</b> BRIC, FMA, HMGP	<b>Estimated Projected Completion Date:</b> Long-term (depending on funding)	<b>Hazard(s) Mitigated:</b> All
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Northfield				

<b>Applicable Goal</b>	1,2,3
<b>Applicable Objective</b>	7,13
<b>Cost Analysis (Low, Medium, High)</b>	High
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	High
<b>Action/Implementation Plan and Project Description:</b>	
<b>Actual Completion Date or Ongoing Indefinite</b>	
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	O

**Action N-4.10**

<b>Mitigation Action #10: Continue to support the countywide actions identified in this plan.</b>					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> Low	<b>Potential Funding Source:</b> General Fund	<b>Estimated Projected Completion Date:</b> Short- and Long-term	<b>Hazard(s) Mitigated:</b> All
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Northfield				
<b>Applicable Goal</b>	1,5				
<b>Applicable Objective</b>	All				
<b>Cost Analysis (Low, Medium, High)</b>	Low				
<b>Priority and Level of Importance (Low, Medium, High)</b>	High				

<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	Medium
<b>Action/Implementation Plan and Project Description:</b>	
<b>Actual Completion Date or Ongoing Indefinite</b>	
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	O

**Action N-4.11**

<b>Mitigation Action #11: Actively participate in the plan maintenance strategy identified in this plan.</b>					
<b>Lead Agency/Department Organization:</b> EMRS, Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> Low	<b>Potential Funding Source:</b> General Fund	<b>Estimated Projected Completion Date:</b> Short-term	<b>Hazard(s) Mitigated:</b> All
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Northfield				
<b>Applicable Goal</b>	1,5				
<b>Applicable Objective</b>	3,4,6				
<b>Cost Analysis (Low, Medium, High)</b>	Low				
<b>Priority and Level of Importance (Low, Medium, High)</b>	High				
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	Medium				
<b>Action/Implementation Plan and Project Description:</b>					
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b>	O				

<b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	
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**Action N-4.12**

<b>Mitigation Action #12: Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.</b>					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> Low	<b>Potential Funding Source:</b> General Fund	<b>Estimated Projected Completion Date:</b> Long-term	<b>Hazard(s) Mitigated:</b> All
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Northfield				
<b>Applicable Goal</b>	1,2,3,5,6				
<b>Applicable Objective</b>	3, 4, 5, 6, 7, 9, 10, 11, 13				
<b>Cost Analysis (Low, Medium, High)</b>	Low				
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium				
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	Medium				
<b>Action/Implementation Plan and Project Description:</b>	We participate in these programs.				
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	O				

## Action N-4.13

Mitigation Action #13: Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements.					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> Low	<b>Potential Funding Source:</b> General Fund	<b>Estimated Projected Completion Date:</b> Short-term and Ongoing	<b>Hazard(s) Mitigated:</b> Flooding
<b>Year Initiated</b>		2014			
<b>Applicable Jurisdiction</b>		Village of Northfield			
<b>Applicable Goal</b>		1,2,5			
<b>Applicable Objective</b>		4,6,9			
<b>Cost Analysis (Low, Medium, High)</b>		Low			
<b>Priority and Level of Importance (Low, Medium, High)</b>		High			
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)		Medium			
<b>Action/Implementation Plan and Project Description:</b>		We continue to work on this.			
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed		O			

## Action N-4.15

<b>Mitigation Action #14: Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.</b>
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<b>Lead Agency/Department Organization:</b> Building Dept.	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> Low	<b>Potential Funding Source:</b> General Fund	<b>Estimated Projected Completion Date:</b> Short-term and ongoing	<b>Hazard(s) Mitigated:</b> All
<b>Year Initiated</b>		2014			
<b>Applicable Jurisdiction</b>		Village of Northfield			
<b>Applicable Goal</b>		1,5			
<b>Applicable Objective</b>		3,4,6,10,13			
<b>Cost Analysis (Low, Medium, High)</b>		Low			
<b>Priority and Level of Importance (Low, Medium, High)</b>		High			
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)		Medium			
<b>Action/Implementation Plan and Project Description:</b>		The building department handles this on every permit they get in.			
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed		O			

**Action N-4.16**

<b>Mitigation Action #16: Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village's regulatory, financial, and technical capability to implement mitigation actions.</b>					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> High	<b>Potential Funding Source:</b> CIP Component of General Fund (if implemented)	<b>Estimated Projected Completion Date:</b>	<b>Hazard(s) Mitigated:</b> All

				Long-term and Ongoing	
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Northfield				
<b>Applicable Goal</b>	1,5				
<b>Applicable Objective</b>	1,2,7				
<b>Cost Analysis (Low, Medium, High)</b>	High				
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium				
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	High				
<b>Action/Implementation Plan and Project Description:</b>					
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	O				

**Action N-4.17**

<b>Mitigation Action #17: Install Storm Sewer in Bosworth area</b>					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/Organizations:</b> Gewalt Hamilton Engineers	<b>Estimated Cost:</b> \$1,478,937	<b>Potential Funding Source:</b> BRIC, FMA, HMGP	<b>Estimated Projected Completion Date:</b> Long-term (depending on Funding)	<b>Hazard(s) Mitigated:</b> Flooding
<b>Year Initiated</b>	2019				
<b>Applicable Jurisdiction</b>	Village of Northfield				
<b>Applicable Goal</b>	1,2				
<b>Applicable Objective</b>	1,2,7,13				



<b>Cost Analysis (Low, Medium, High)</b>	Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
<b>Priority and Level of Importance (Low, Medium, High)</b>	High
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	Assist with flooding in that area. High—The project will provide an immediate reduction of risk exposure for life and property.
<b>Action/Implementation Plan and Project Description:</b>	Phase 1 of the Bosworth Area Storm Water Drainage Improvements starts on Jeffery Street and the unimproved Willow Road right of way. 2000Lf of pipe and Catch Basins and Inlets
<b>Actual Completion Date or Ongoing Indefinite</b>	
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> <b>N</b> = New; <b>I</b> = In Progress Toward Completion; <b>O</b> = Ongoing Indefinitely; <b>C</b> = Project Completed; <b>R</b> = Want Removed from Annex; <b>X</b> = No Action Taken/Delayed	0

## Completed Actions

**Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.**

Completed Action Items
Test Emergency Notification System. Smart 911
South Central Willow Road Storm Sewer.
Where feasible, implement a program to record high water marks following high water events.

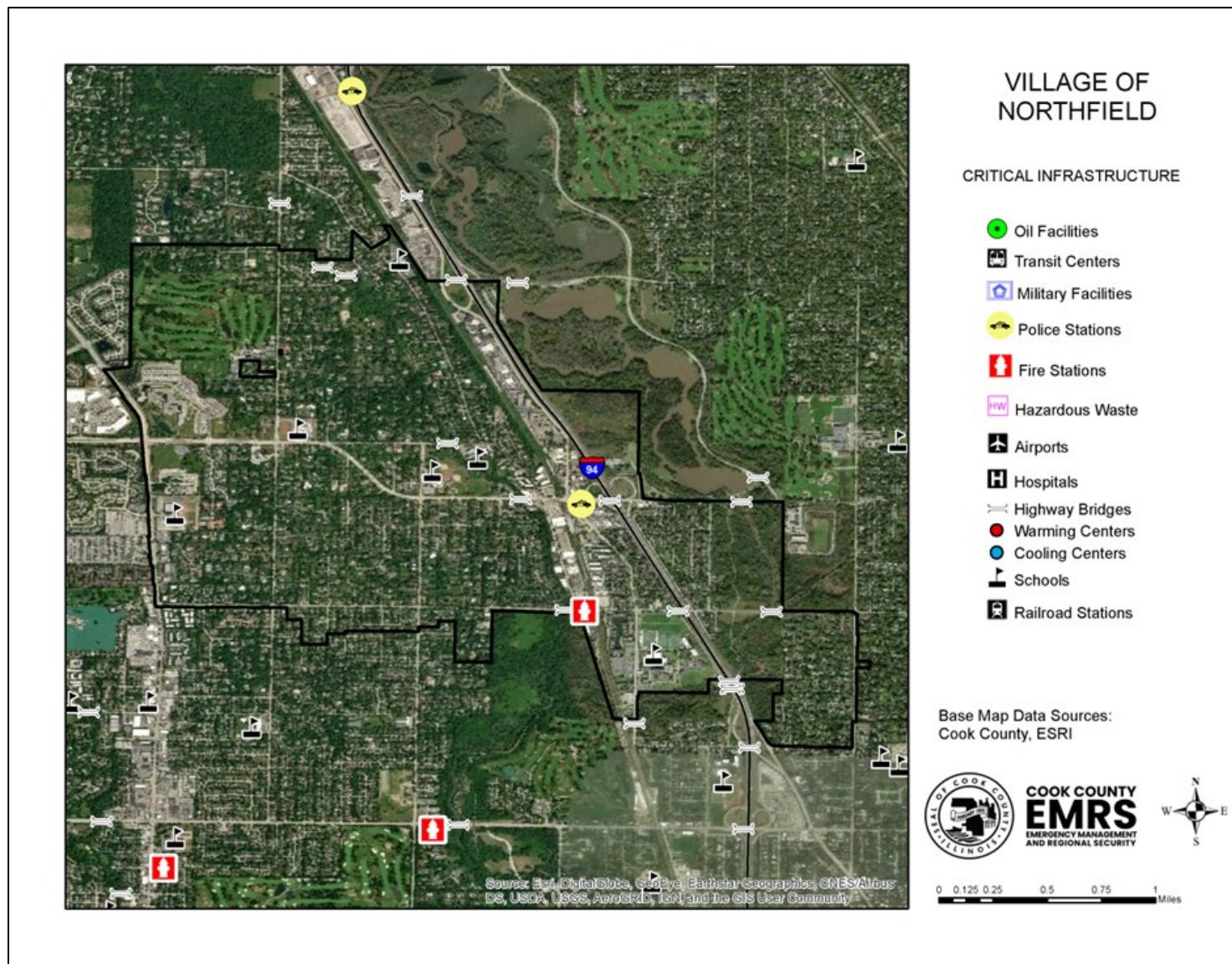
## Future Needs to Better Understand Risk/Vulnerability

No future needs have been identified at this time.

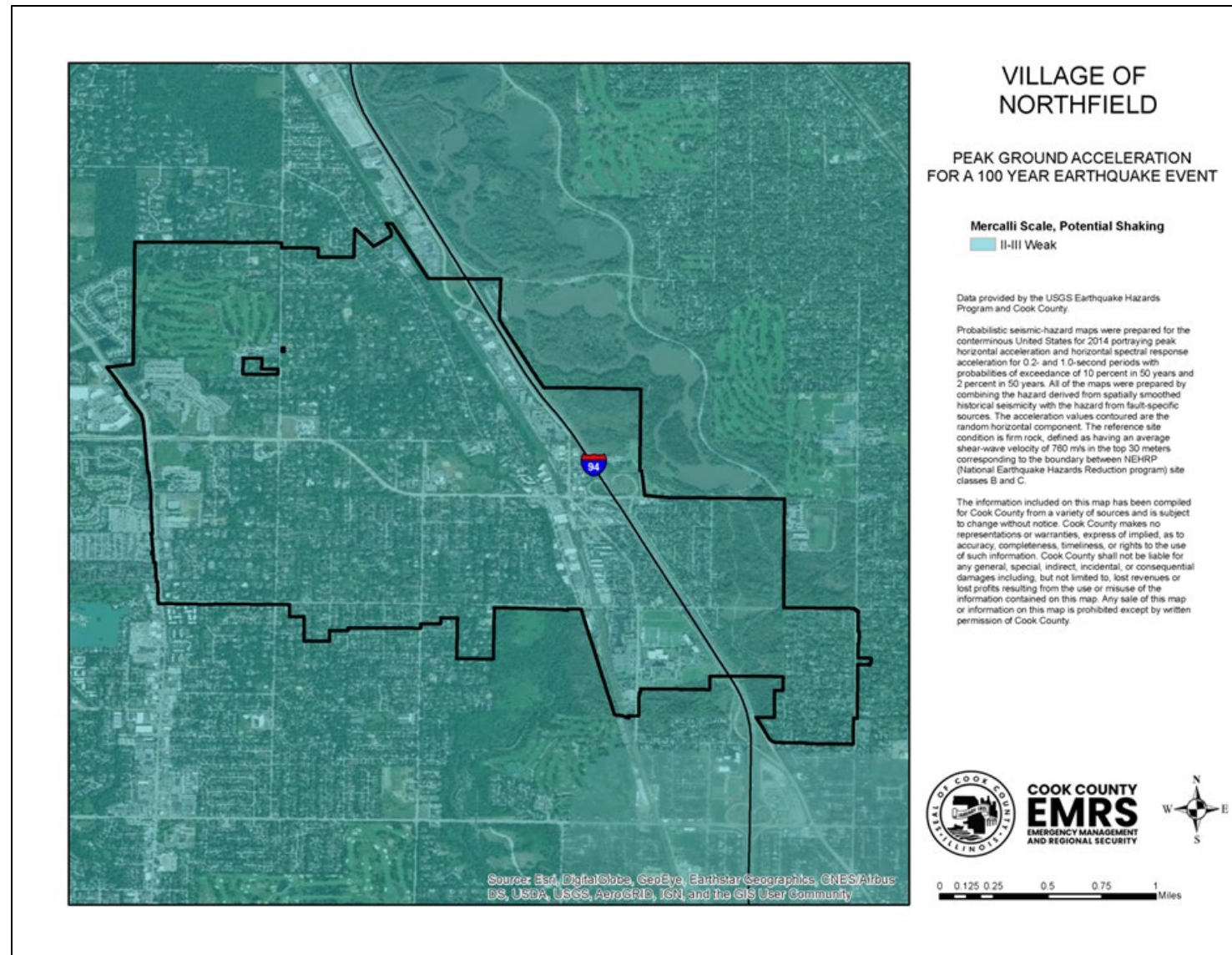
## **Additional Comments**

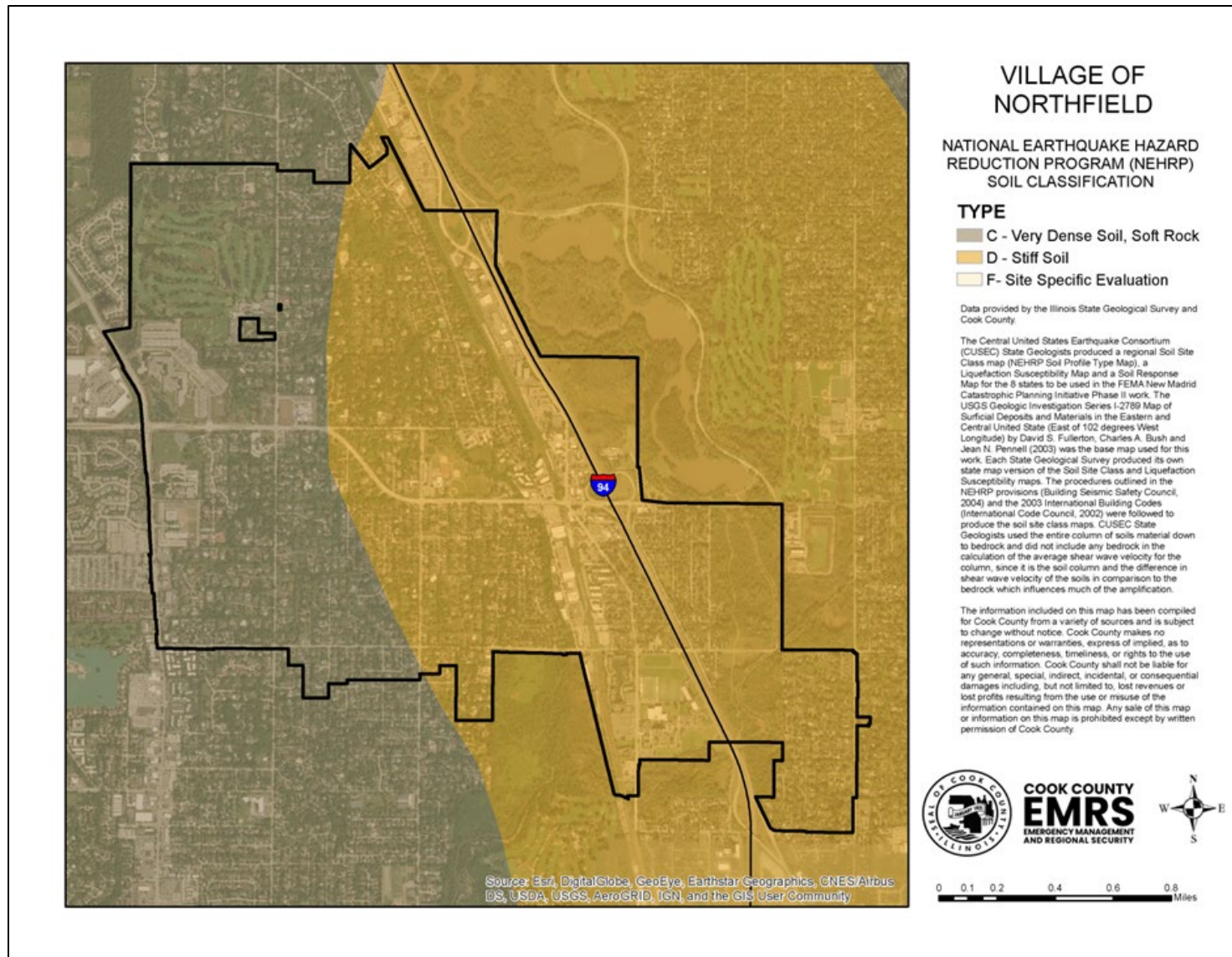
No additional comments at this time.

## Hazard Mapping











DISCLAIMER: The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from <http://www.fema.gov>.

