# COOK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN VOLUME 2 - Municipal Annexes

# **Norridge Annex**

#### **FINAL**

July 2019

Prepared for:



Cook County
Department of Homeland Security and Emergency Management
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# Hazard Mitigation 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:** December 4, 1948
- **Current Population:** 14,281 as of the 2018 US Census population estimate.
- **Population Growth:** The Village of Norridge has been relatively stable with a less than 1 percent decrease from 2000 to 2016.
- Location and Description: The Village of Norridge is located in Norwood Park Township, Cook County, just 13 miles northwest of the Chicago Loop. The Village sits on a Moraine ridge forming a watershed with the Chicago River Valley on the east and the Des Plaines River Valley on the west. The crown of the ridge is at Overhill Ave., 7600 west. It is bordered by Norwood Park and O'Hare Airfield to the north, Dunning to the south, Harwood Heights to the east, and Forest Preserves to the west. O'Hare International Airport is 1 mile directly north of Norridge. The altitude is 645 feet. Norridge is part of Norwood Park Township and the County of Cook. The portion of Norridge which is west of Cumberland Avenue is part of Leyden Township. Interstates 90 and 294 both run adjacent to Norridge. According to the U.S. Census Bureau, the total land area is 1.81 square miles.
- Brief History: Through the efforts of the Annexation Improvement Club, Norridge was incorporated, by referendum, on December 4, 1948. Norridge became a "Home Rule" Community by referendum on May 1, 1973. In 1954 Norridge doubled its size when it annexed the area between Montrose Ave. and Lawrence Ave. Norridge continued its growth by additional annexations north to Foster Ave., west to Dee Road and east to Sayer Ave. It now encompasses approximately two square miles. The population at the time of incorporation was 1,675. It reached 18,043 in 1971. At the last census in 2000 it was 14,582.
- Climate: The climate of the Village of Norridge 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 city 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 city's wettest and unpredictable season. Winter like conditions can persist well into April and even occasionally into May. Thunderstorms are especially prevalent in the spring time as the city'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 the 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 Norridge is governed by a seven-member Village Council, including 6 trustees and a Village President. Each trustee oversees a Village department which includes one trustee for police, one trustee for finance, license and contracts, one trustee for law and ordinance, economic development and property, one trustee for water, utilities and information technology, one trustee for Village properties, environment, human resources, insurance, health and life safety, and one trustee for public works. This body of Government will assume the responsibility for the adoption and implementation of this plan. A Village President, Village Clerk and six Trustees are elected at large to serve four-year terms. In addition, numerous civic-minded individuals compose commissions and boards that assist the Village to meet the needs of the residents.
- **Development Trends:** The neighborhood area has been well established for many years. The Village is land-locked and nearly fully developed. The Village does not anticipate any growth. The Village developed a comprehensive plan in 2012. The plan focuses on issues of the greatest concern to the community. Village actions, such as those relating to land use allocations, annexations, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with this plan. Future growth and development in the Village will be managed as identified in the Comprehensive Plan. As of 2019, there are some new retail businesses coming to Norridge.

## 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 the *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
Codes, Ordinances & F	Requirements	5			
Building Code	Yes	No	No	Yes	In accordance with Public Act 096-0704, Illinois has adopted the IBC as its state Building Code Article III Sec 18- 61 through 84
Zonings	Yes	No	No	Yes	Article III Sec 86- 101 through 107
Subdivisions	Yes	No	No	No	Article I Sec 86-1 through 4
Stormwater Management	Yes	No	No	Yes	Article II Sec 46- 31 through 40
Post Disaster Recovery	Yes	No	No	No	Chapter 26 Sec 26-1
Real Estate Disclosure	Yes	No	No	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act. Article II Div. 3 Sec 54-81 through 88
Growth Management	Yes	No	No	No	Comprehensive Plan 2010

Site Plan Review	Yes	No	No	No	Article III Sec 18- 61 through 84
Public Health and Safety	Yes	No	Yes	No	Cook County Board of Health. Chapter 26 Sec 26-1
Environmental Protection	Yes	No	No	No	Article V Div. 1 Sec 98-188 and 189
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	Comprehensive Plan 2010
Is	the plan equi	pped to provide	linkage to this mit	igation plan?	Yes
Floodplain or Basin Plan	Yes	No	No	No	Article II Sec 46- 31 - 40
Stormwater Plan	Yes	No	No	No	Article II Sec 46- 31 - 40
Capital Improvement Plan	Yes	No	No	No	Div. 3 Sec 98-241 - 246
What types of capital facilities does the plan address?					Norridge is developing a plan to re-develop existing land for business and manufacturing. The town is landlocked.
How often is the plan revised/updated?					Bi-Annually
Habitat Conservation Plan	No	No	No	No	No
Economic Development Plan	Yes	No	No	Yes	Subdivision II Sec 2-111 through 127
Shoreline Management Plan	No	No	No	No	N/A
Response/Recovery Planning					

Comprehensive Emergency Management Plan	Yes	No	No	No	Pending approval by Cook County
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	Yes	No	No	No	EOP
Post-Disaster Recovery Plan	Yes	No	No	No	EOP
Continuity of Operations Plan	Yes	No	No	No	ЕОР
Public Health Plans	Yes	No	No	No	Div. 6 Sec 2-311

TABLE: FISCAL CAPABILITY			
Financial Resources	Accessible or Eligible to Use?		
Community Development Block Grants	Yes		
Capital Improvements Project Funding	Yes		
Authority to Levy Taxes for Specific Purposes	Yes		
User Fees for Water, Sewer, Gas or Electric Service	Yes		
Incur Debt through General Obligation Bonds	Yes		
Incur Debt through Special Tax Bonds	Yes		
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	Yes		

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY				
Staff/Personnel Resources Available? Department/Agency/Position				
Planners or engineers with knowledge of land development and land management practices	Yes	Village Engineer		

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	Yes	Village Engineer
Surveyors	Yes	Cook County
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Norridge Emergency Management
Grant writers	Yes	Administrative Consulting Specialists, LLC

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE				
What department is responsible for floodplain management in your jurisdiction?	Village Engineer			
Who is your jurisdiction's floodplain administrator? (department/position)	Village Engineer			
Are any certified floodplain managers on staff in your jurisdiction?	No - Norridge is not in a floodplain.			
What is the date of adoption of your flood damage prevention ordinance?	Article II Sec 46-31 through 40			
When was the most recent Community Assistance Visit or Community Assistance Contact?	Unavailable			
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No			
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	No, FEMA advised Norridge is not in a floodplain			
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			

TABLE: COMMUNITY CLASSIFICATIONS					
	Participating?	Classification	Date Classified		
Community Rating System	No	N/A	N/A		
Building Code Effectiveness Grading Schedule	Yes	Unknown	N/A		
Public Protection/ISO	Yes	ISO 4	May 2013		
StormReady	Yes	Gold (countywide)	2014		
Tree City USA	No	N/A	N/A		

# Jurisdiction-Specific Natural Hazard Event

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: 0
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

TABLE: NATURAL HAZARD EVENTS					
Type of Event	FEMA Disaster Number (if applicable)	1)270			
Heavy Rain	-	8/7/2018	-		
Hail	-	4/25/2016	-		
Severe Winter Storm	-	1/1/2014	13.8 inches of snow		
Severe Storm	-	7/24/2013	3.74 inches of rain/street and basement flooding		
Severe Storm	-	6/26/2013	3.75 inches of rain/street and basement flooding		
Severe Storm	DR-4116	4/18/2013	4.8 inches of rain/street and basement flooding		
Severe Storm	9325782	7/22/2011	4.25 inches of rain/street and basement flooding		
Severe Storm/Thunderstorms - Wind	9322464	6/21/2011	Severe storm with wind damage to trees		
Illinois Severe Winter Storm and Snowstorm	DR-1960	1/31/2011	Norridge received IL Disaster Aide for snow removal.		
Illinois Severe Winter Storm and Snowstorm	DR-1960	1/31/2011	Heavy snow.		
Severe Storm/Thunderstorms - Wind	9240525	9/21/2010	-		

Illinois Severe Storms, Flooding	DR-1935	7/19/2010	-
Severe Storm	9322464	6/19/2009	3.20 inches of rain/street and basement flooding
Severe Storm	DR-1800	9/13/2008	7.26 inches of rain/street and basement flooding
Wind-Winter Weather	8867633	1/22/2008	Norridge received IL Disaster Aide for snow removal.
Severe Storm/Thunderstorms - Wind	8832682	8/23/2007	Severe storm with wind damage to trees
Flooding	8827885	6/26/2007	-
Flooding	8810172	9/13/2006	4.44 inches of rain/street and basement flooding
Illinois Severe Winter Storm	EM-3161	12/11/2000	-
Illinois Winter Snow Storm	EM-3134	1/1/1999	21.6 inches of snow
Illinois Flooding	DR-1188	8/16/1997	-
Illinois Flooding, Severe Storms	DR-997	4/13/1993	-
Severe Storm/Thunderstorms - Wind	9277194	6/29/1990	-
Illinois Severe Storms, Flooding	DR-798	8/13/1987	-
Illinois Severe Storms, Flooding	DR-776	9/21/1986	-
Illinois Severe Storms, Tornadoes, Flooding	DR-643	6/30/1981	-
Illinois Blizzards and Snowstorms	EM-3068	1/16/1979	18.8 inches of snow
Illinois Severe Storms, Tornadoes, Flooding	DR-509	6/18/1976	-
Illinois Severe Storms, Flooding	DR-373	4/26/1973	-

Illinois Severe Storms, Flooding	DR-351	9/4/1972	-
Severe Storm/Thunderstorms - Wind	8935123	8/16/1968	-

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

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2019 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:** Within the Village, several areas are prone to flooding. Some of these areas are low lying and were natural creek areas prior to development particularly along Oketo and Octavia Avenues. In 2018, Heavy rain produced flash flooding across portions of northern Illinois during the afternoon of August 7th. Storm total rainfall of 2.63 inches was measured in Norridge

**Extreme Heat:** Within the Village, homes are older, many without AC. Moreover, the community's demographic is largely composed of senior citizens. In particular, this population has been negatively impacted in the past by extreme heat. Just as well, the community has power back-ups in several large senior assisted living homes.

**Severe Weather**: In 2003, hail the size of quarters to walnuts was reported in Norridge. In 2012, multiple reports of hail up to the size of nickels were received between Norwood Park and Niles, including a report near the intersection of Touhy Avenue and Caldwell Avenue. A slow moving cold front sagged south across northern Illinois during the evening of May 3rd. Isolated severe thunderstorms initially developed over northern Illinois then became more widespread overnight as thunderstorms continued to develop upstream and train along the frontal boundary. In 2016, quarter size hail was reported near the intersection of Montrose and Ottawa.

**Dam Failure:** While no event has occurred, stormwater retention is needed especially for Ocatvia/Belle Plaine Avenue, Overhill/Giddings, Osage and Wilson.

## 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.

	TABLE: HAZARD RISK RANKING						
Rank	Hazard Type	Risk Rating Score (Probability x Impact)					
1	Urban Flooding	54					
2	Severe Weather	54					
3	Severe Winter Weather - Cold	54					
4	Tornado	54					
5	Earth Quake	18					
6	Dam Failure	9					
7	Drought	2					

Note: Norridge requested that Urban Flooding be manually adjusted to represent a risk threshold that was higher. The original score was 45.

## Mitigation Strategies and Actions

The heart of the mitigation plan is the mitigation strategy, which serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The mitigation strategy describes how the community will accomplish the overall purpose, or mission, of the planning process. In this section, mitigation actions/projects were updated/amended, identified, evaluated, and prioritized. This section is organized as follows:

- New Mitigation Actions New actions identified during this 2019 update process
- Ongoing Mitigation Actions Ongoing actions with no definitive end or that are still in progress.
   During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.
- Completed Mitigation Actions An archive of all identified and completed projects, including completed actions since 2014.

The Hazard Mitigation Action Plan Matrix Table below lists the actions that make up the jurisdiction's hazard mitigation plan. The Mitigation Strategy Priority Schedule Table identifies the priority for each action.

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
imeline/Projected ompletion Date (a)	Sources of Funding	Estimated Cost	Lead Agencies	Objectives Met	Hazards Mitigated	Status	
underground under ber each.				lle Plaine Aver			
2 years	General Fund	\$2,400,000	Public Works	1, 2, 3, 7, 9	Urban Flooding, Severe Weather, Dam failure	Ongoing	
nber underground o chamber each.							
2 years	General Fund	\$2,400,000	Public Works	1, 2, 3, 7, 9	Urban Flooding, Severe Weather, Dam failure	Ongoing	
	Fund		Works	1, 2, 3, 7, 9 ddings. Build a	Flooding, Severe Weather, Dam failure		

Ongoing	Urban Flooding, Severe Weather, Dam failure	1, 2, 3, 7, 9	Public Works	\$2,400,00	General Fund	2 years
					amber under o chamber ea	ground under the street ch.
Ongoing	Urban Flooding, Severe Weather, Dam failure	1, 2, 3, 7, 9	Public Works	\$2,400,000	General Fund	2 years
Hardwood F	leights and N	orridge this pr	oject would a	address reocc		Library between g by expanding sing pipe size.
Ongoing	Urban Flooding, Severe Weather, Dam failure	1, 2, 3, 7, 9	Norridge and Harwood Heights	\$3,100,000	General Fund from both agencies	5 years
Preserve to project to in	control reocc crease drain	urring floodin	g in residentiand the	al homes in th current reserv	ie area. This w	ok County Forest yould expand a previous ld also include an
Ongoing	Urban Flooding, Severe Weather, Dam failure	1, 2, 3, 7, 9	Norridge and Cook County Forest Preserve	\$5,700,000	General Fund from both agencies	5 years
Action N2.7—Emergency Operations Center and Warming/cooling center. Norridge has an elderly population that is the highest in the area per capita. Severe weather is one of the most significant hazards and during storm the existing power infrastructure is old and has multiple failures. Norridge has opened the warming and cooling center to serve the population at the community center. This is also the location of our Emergency Operations Center.						
Completed	All Hazards	1, 5, 8	Norridge	\$350,000	General Fund	Completed

				· ·		of structures in hazard- h exposure to repetitive
Ongoing	All	7, 13	Village	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action N2.9	—Continue to	support the	countywide a	ctions identif	ied in this plar	ո.
Ongoing	All	All	Village	Low	General Fund	Short-and long-term
Action N2.1	<b>0</b> —Actively p	articipate in tl	ne plan maint	enance strate	egy identified	in this plan.
Ongoing	All	3, 4, 6	DHSEM, Village	Low	General Fund	Short-term
	<b>1</b> —Consider լ e City, and Sto	•	n incentive-ba	ased program	s such as the	Community Rating
Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13		Low	General Fund	Long-term
programs the adopted flo	nat meet or ex od damage pr	ceed the min	imum NFIP re nance, partici	quirements. Spating in floo	Such program:	gram by implementing s include enforcing an ng updates, and pacts.
Ongoing	Flooding	4, 6, 9	Village Engineer	Low	General Fund	Short-term and ongoing
Action N2.1 events.	3—Where fea	asible, implem	ent a prograr	n to record h	igh water mar	ks following high-water
Ongoing	Flooding, Severe Weather	3, 6, 9	Village	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
	<b>Action N2.14</b> —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.					
Ongoing	All	3, 4, 6, 10, 13	Village	Low	General Fund	Short-term
Action N2.1	<b>.5</b> - Create Far	nily Disaster P	lans and Supp	oly Kits		
New	All	6	Unknown	Low	Unknown	Unknown

(a) Ongoing indicates continuation of an action that is already in place. Short-term indicates implementation within five years. Long-term indicates implementation after five years.

	TABLE: MITIGATION STRATEGY PRIORITY SCHEDULE						
Action Number	Number of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant- Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority (a)
1	5	High	High	Yes	Yes	No	Medium
2	5	High	High	Yes	Yes	No	Medium
3	5	High	High	Yes	Yes	No	Medium
4	5	High	High	Yes	Yes	No	Medium
5	5	High	High	Yes	Yes	No	Medium
6	5	High	High	Yes	Yes	No	Medium
7	3	High	Low	Yes	Yes	No	Medium
8	2	High	High	Yes	Yes	No	Medium
9	13	Medium	Low	Yes	No	Yes	High
10	3	Medium	Low	Yes	Yes	Yes	High
11	9	Medium	Low	Yes	No	Yes	Medium
12	3	Medium	Low	Yes	No	Yes	High
13	3	Medium	Medium	Yes	Yes	No	Medium
14	5	Medium	Low	Yes	No	Yes	Medium
15	1	Medium	Low	Yes	Unknown	Unknown	Medium
(a) See Ch	anter 1 for e	vnlanation	of priorit	ies			

## **New Mitigation Actions**

The following are new mitigation actions created during the 2019 update.

Mitigation Action	Create Family Disaster Plans and Supply Kits
Year Initiated	2019
Applicable Jurisdiction	Norridge
Lead Agency/Organization	
Supporting Agencies/Organizations	
Applicable Goal	<ul> <li>Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> </ul>
Applicable Objective	Use the best available data, science and technologies to educate the public and to improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types and community development patterns, and the measures needed to protect life safety
Potential Funding Source	N/A
Estimated Cost	N/A
Benefits (loss avoided)	N/A
Projected Completion Date	TBD
Priority and Level of Importance (Low, Medium, High)	Medium Priority
Benefit Analysis (Low, Medium, High)	Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High)	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
Actual Completion Date	

## **Recommended Mitigation Action/Implementation Plan and Project Description**

Action/Implementation
Plan and Project
Description:

Family Disaster Plans and Supply Kits: Communities can encourage residents to prepare themselves by stocking up with necessary items and planning for how family members should respond if any of a number of possible emergency or disaster events strike.

#### **Mitigation Action and Project Maintenance**

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

	Mitigated Hazards
Х	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)		
# N-2.1	Ocatvia/Belle Plaine Avenue. Build a stormwater retention chamber underground under the street to mitigating occurring flooding in the area.  Two locations and two chamber each.			
Status Description: No	Need to discuss with municipal planning committee.			
Completion status legend:  N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# N-2.2	Ozanam Ave/Belle Plane Avenue. Build a storm water retention chamber underground under the street to mitigating occurring flooding in the area. Two locations and two chamber each.				
Status Description: No	Need to discuss with municipal planning committee.	Х			
	Completion status legend:				
N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)		
# N-2.3	Overhill/Giddings. Build a storm water retention chamber underground under the street to mitigating occurring flooding in the area. Two locations and two chamber each.			
Status Description: No	Need to discuss with municipal planning committee.			
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.4	Osage and Wilson. Build a storm water retention chamber underground under the street to mitigating occurring flooding in the area. Two locations and two chamber each.	
Status Description: No	Need to discuss with municipal planning committee.	Х
Completion status legend:		
N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.5	Oketo/Wilson Cooperative. In the area of the Eisenhower Public Library between Hardwood Heights and Norridge this project would address reoccurring flooding by expanding drainage sewers, adding water chambers, and improving drain sewer by increasing pipe size.	
Status Description: No	Description: Need to discuss with municipal planning committee and cooperating with other jurisdictions.	
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.6	Montrose/Thatcher Reservoir – Cooperative project with the Cook County Forest Preserve to control reoccurring flooding in residential homes in the area. This would expand a previous project to increase drain sewer size and expand the current reservoir. This would also include an underground pumping station from drainage water chambers.	
Status Description: No	Need to discuss with municipal planning committee and cooperating with other jurisdictions.	х
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.8	Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.	
Status Description: No  Need to discuss with municipal planning committee and cooperating with other jurisdictions.		Х
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)		
# N-2.9	Continue to support the countywide actions identified in this plan.			
Status Description: Yes		0		
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.10	Actively participate in the plan maintenance strategy identified in this plan.	
Status Description: Yes		Х
Completion status legend:  N = New O = Action Ongoing toward Completion		

**C** = Project Completed **R** = Want Removed from Annex **X** = No Action Taken

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.11	Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.	
Status Description: No		Х
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.12	Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.	
Status Description: No	Need to discuss with municipal planning committee.	х
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# N-2.13	Where feasible, implement a program to record high water marks following high-water events.		
Status Description: No		Х	
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.14	Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.	
Status Description: No	Ongoing	Х
Completion status legend:  N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

## Completed Mitigation Actions

The following section represents completed mitigation actions, and serves as an archive of identified and completed projects.

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# N-2.7	Emergency Operations Center and Warming/cooling center. Norridge has an elderly population that is the highest in the area per capita. Severe weather is one of the most significant hazards and during storm the existing power infrastructure is old and has multiple failures. Norridge has opened the warming and cooling center to serve the population at the community center. This is also the location of our Emergency Operations Center.	
Status Description: Yes		С
Completion status legend:  N = New O = Action Ongoing toward Completion  C = Project Completed R = Want Removed from Annex X = No Action Taken		

# Future Needs to Better Understand Risk/Vulnerability

Norridge has a common boundary with the Cook County Forest Preserve and has developed the Urban Wildfire Building Code from the National Wildlife ICC due to potential fires in the area effecting homes.

# Additional Comments

No additional comments at this time

# HAZUS-MH Risk Assessment Results

NORRIDGE EXISTING CONDITIONS		
2010 Population	14,572	
Total Assessed Value of Structures and Contents	\$3,134,060,200	
Area in 100-Year Floodplain	0.00 acres	
Area in 500-Year Floodplain	0.00 acres	
Number of Critical Facilities	14	

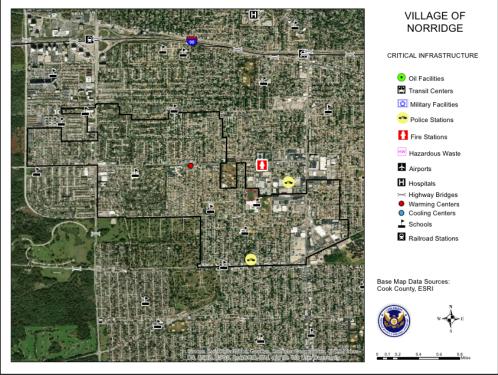
HAZARD EXPOSURE IN NORRIDGE							
	Number Exposed		Value Exposed to Hazard			% of Total Assessed	
	Population	Buildings	Structure	Contents	Total	Value Exposed	
Dam Failure							
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%	
Touhy	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%	
Flood							
100-Year	0	0	\$0	\$0	\$0	0.00%	

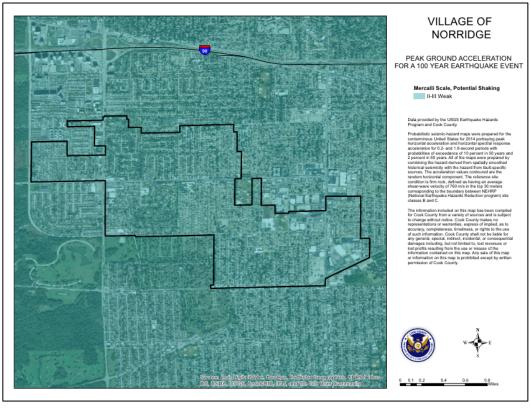
500-Year	0	0	\$0	\$0	\$0	0.00%
Tornado						
100-Year	_	_	\$480,008,005	\$317,047,852	\$797,055,857	25.43%
500-Year	_	_	\$706,978,970	\$530,096,465	\$1,237,075,435	39.47%

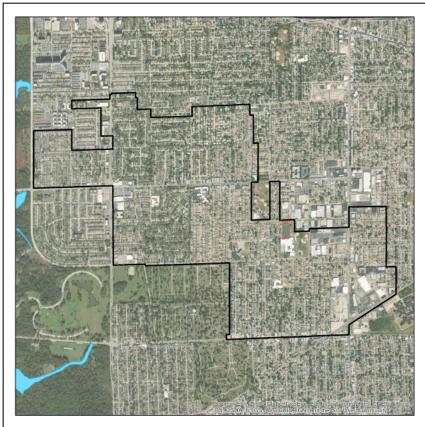
ESTIMATED PROPERTY DAMAGE VALUES IN NORRIDGE							
	Estima	% of Total Assessed					
	Building	Contents	Total	Value Damaged			
Dam Failure							
Buffalo Creek	\$0	\$0	\$0	0.00%			
U. Salt Cr. #2	\$0	\$0	\$0	0.00%			
Touhy	\$0	\$0	\$0	0.00%			
U. Salt Cr. #3	\$0	\$0	\$0	0.00%			
U. Salt Cr. #4	\$0	\$0	\$0	0.00%			
Earthquake							
1909 Historical Event	\$12,779,133	\$2,833,080	\$15,612,213	0.50%			
Flood							
10-Year	\$0	\$0	\$0	0.00%			
100-Year	\$0	\$0	\$0	0.00%			
500-Year	\$0	\$0	\$0	0.00%			

Tornado						
100-Year	\$48,000,801	\$31,704,785	\$79,705,586	2.54%		
500-Year	\$103,218,930	\$77,394,084	\$180,613,013	5.76%		

# Hazard Mapping







#### VILLAGE OF **NORRIDGE**

COOK COUNTY MWRDGC 100-YEAR INUNDATION AREA

100-year Inundation Area

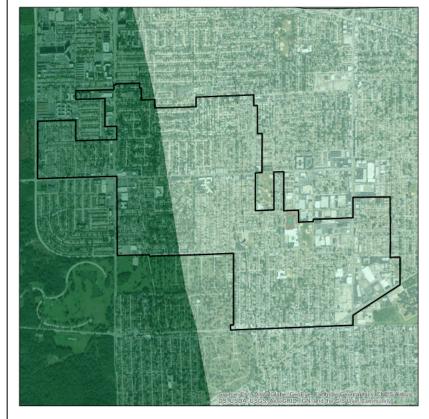
MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

The information included on this map has been compiled for Cook County from a variety of sources and is subject to change without notice. Cook County makes no representations or warranties, express of implied, as to accuracy, completeness, timeliness, or rights to the use of such information. Cook County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of Cook County.

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.







#### VILLAGE OF **NORRIDGE**

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

high low

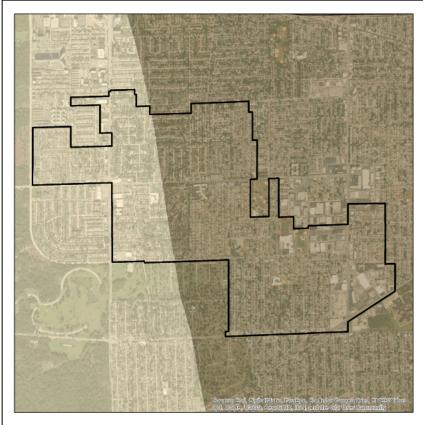
Data provided by the Illinois State Geological Survey and Cook County.

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#### VILLAGE OF NORRIDGE

NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

#### TYPE

C - Very Dense Soil, Soft Rock

D - Stiff Soil

F- Site Specific Evaluation

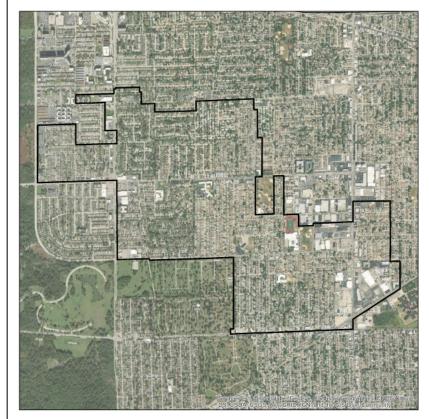
Data provided by the Illinois State Geological Survey and Cook County.

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The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil State (CUSEC) State Geologists produced a regional Soil State (CUSEC) State Geologists produced a regional Soil State (CUSEC) State S







#### VILLAGE OF **NORRIDGE**

100- AND 500- YEAR TORNADO EVENTS

#### Magnitude

4 (100 year event) 5 (500 year event)

Historic tornado data provided by NOAA/NWS showing the initial points and paths of all F4 and F5 events observed from 1950 to 2017.



