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

## **Skokie 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
Jeff Hoeflich, Interim Fire Chief	Max Slankard, Public Works Director
Skokie Fire Department	9050 Gross Point Road
7424 Niles Center Road	Skokie, IL 60074
Skokie, IL 60074	Telephone: 847-933-8272
Telephone: 847-982-5320	Email Address:
Email Address:	max.slankard@skokie.org
jeffrey.hoeflich@skokie.org	

#### Jurisdiction Profile

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

- Date of Incorporation: Incorporated as Niles Center in 1888
- Current Population: 63,280 as of the 2018 US Census population estimate.
- **Population Growth:** Population growth has remained relatively flat since 2000 with an increase of 2.7%. From 2010 to 2017 the estimates show a slight decrease in population of less than 2 percent.
- Location and Description: The Village of Skokie is located 16 miles northwest of downtown Chicago and 12 miles east of O'Hare International Airport. Skokie is a largely populated Village with 65,000 residents, 24,000 households and 1,925 businesses that call Skokie their home. The Village of Skokie covers 10.06 square miles of land and is bordered by the Villages of Glenview and Wilmette on the north, the Village of Lincolnwood and the City of Chicago on the south (West Rogers Park and Edgebrook neighborhoods), the Villages of Morton Grove and Niles on the west and the City of Evanston on the east. Accessibility to transportation is a key advantage in Skokie, with the Edens Expressway (I-94) spanning the community's western edge, seven Chicago Transit Authority and 10 Pace suburban bus lines, and the CTA's Skokie Swift rail line offering numerous options for public transportation.
- Brief History: Known as Niles Center for 52 years, Skokie was incorporated in 1888 as a thriving community with many homes, places of worship, schools and shops. In the early 1900s, the village was known for its vegetable farms, greenhouses and saloons. Population increases were modest during the early 1900s. Land annexations nearly increased the village to its present 10.06 square miles. By 1920, subdivisions spurred by construction of the Chicago and North Shore Railway (electric) to Waukegan (presently Skokie Swift connection) and construction of the Chicago and North Western Railway tracks further expanded the village population. By the 1950s, Skokie hosted three interchanges of the Eden's Expressway, Chicagoland's first Expressway, with the village's population skyrocketing to 59,364 by 1960. The village became an attractive new home for companies leaving nearby Chicago. Careful city planning has led to productive growth of the Village. Today, the Village of Skokie is a community represented by an urban/suburban lifestyle.
- Climate: The climate for the Village of Skokie is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and often humid summers; pleasant autumns; and cold winters. Annual precipitation is average, and reaches its lowest points in the months of January (2.05"/11.6" of snow) and February (1.93"/9.6" of snow), and peaks in the months of May (4.12") and June (4.06"). Annual temperature averages are lowest in January (16.5 F degrees) and are highest in July (84.1 F degrees).
- Governing Body Format: The Village of Skokie is a home-rule community under the 1970 Illinois
  Constitution. Skokie's Council-Manager form of government was inaugurated in 1957, when
  residents overwhelmingly voted to adopt the Council-Manager form. The Village Manager
  functions as the Chief Administrative Officer of the Village. It is the Manager's responsibility to
  enforce all Village ordinances, recommend policy alternatives to the Board and prepare an

annual budget. This body of Government will assume the responsibility for the adoption and implementation of this plan. The Village Manager directs and coordinates the activities of all Village Departments except the Corporation Counsel Department which, like advisory commissions, reports directly to the Mayor and Board of Trustees. There are seven positions on the Board of Trustees, including the Mayor and six Trustees. A Village Clerk is also elected. Each elected official serves a four-year term. There are 87 voting precincts in Skokie all elected positions are elected at-large. Skokie operates 12 village departments including: Community Development, Corporation Counsel, Economic Development, Finance Department, Fire Department, Health Department, Human Services, Personnel, Police Department, Public Works Department, Purchasing, and the Village Manager's Office.

**Development Trends:** As of November 2013, after several years of a down economy, building activity has increased significantly and is currently at a record level for issued building permits. Development is occurring primarily in the commercial, institutional and industrial areas, and downtown is currently under redevelopment. Several new shopping centers are currently under construction or being planned with big box retail and restaurant uses. Existing industrial buildings are in high demand for use by small companies and are being purchased and modernized. Institutional uses, such as the hospital and schools, are remodeling and expanding. Residentially there has been little new construction; however, there has been a significant increase in single family additions and remodeling work that is expected to continue. The Village of Skokie adopted its comprehensive plan in March of 2007. The plan divides the Village into neighbors with specific redevelopment plans. The Village is currently focusing on the redevelopment of the Downtown with a \$12 million dollar development plan and the East Dempster Street area, for which a plan was recently developed. Both areas have commuter rail stations and the Village is encouraging redevelopment with mixed-use commercial/residential buildings. Skokie currently has a number of long range planning goals with plans for a Bicycle Plan, Dempster Station Area Plan, Neighborhood Plans (Because Skokie is a very diverse community, creating smaller plans around neighborhoods makes it easier to focus on the specific needs and interests of local residents and businesses), Skokie Swift/Yellow Line Extension, and the Skokie Valley Trail (The Village of Skokie was awarded a grant through the Model Communities Grant Program to prepare plans for the Skokie Valley Trail to be located along the ComEd right-of-way from Oakton Street south to the Village of Lincolnwood limits).

## 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 & R	Requirements	3			
Building Code	Yes	No	No	Yes	08-C-3613, 4/7/08
Zonings	Yes	No	No	Yes	08-C-3613, 4/7/08
Subdivisions	Yes	No	No	No	09-6-C-3683, 6/15/09
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. 13-10-C-4010 10/7/13 MWRD
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	Yes	No	No	No	Village of Skokie Health Department 13-10-C-4010 10/7/13
Public Health and Safety	Yes	No	Yes	Yes	VOS Code Chapter 54
Environmental Protection	Yes	No	No	No	08-12-C-3652
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	03-12-Z-3233 12/1/03
Is	the plan equi	pped to provide	linkage to this mit	igation plan?	Yes, Plan includes land use and redevelopment components.
Floodplain or Basin Plan	Yes	No	No	No	08-8-C-3631 GIS Plan
Stormwater Plan	Yes	No	No	No	08-22-1977 Completed
Capital Improvement Plan	Yes	No	No	No	Part of Annual Budget
What types of capital facilities does the plan address?					Village Infrastructure, Facilities & Equipment
		How oft	en is the plan revis	ed/updated?	Yes
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	No	No	Yes	Yes	The Economic Development Department is charged with reviewing all economic development related programs and incentives including tax incentives offered

					through the Cook County 6b program.
Shoreline Management Plan	No	No	No	No	
Response/Recovery PI	anning				
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County DHSEM
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County DHSEM
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County DHSEM
Public Health Plans	Yes	No	No	No	The Village of Skokie has its own Health Department

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	Yes			
Withhold Public Expenditures in Hazard-Prone Areas	No			

State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other (Home Rule Sales Tax)	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	Community Development/ Planner	
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering/Civil Engineer	
Planners or engineers with an understanding of natural hazards	Yes	Engineering/Civil Engineer	
Staff with training in benefit/cost analysis	Yes	Public Works/Assistant to Director	
Surveyors	No		
Personnel skilled or trained in GIS applications	Yes	Skokie GIS Consortium Staff and Cook County GIS Consortium	
Scientist familiar with natural hazards in local area	No		
Emergency manager	Yes	Fire Chief is Emergency Management Coordinator, Cook County DHSEM, IEMA & FEMA	
Grant writers	No	Non-Specific – Each Village Department Manages their own with support from Village Manager's Office and Village of Skokie Finance Department	

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE		
What department is responsible for floodplain management in your jurisdiction?	Engineering	

Who is your jurisdiction's floodplain administrator? (department/position)	Engineering/Village Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	2008 - Northern IL Floodplain Ordinance
When was the most recent Community Assistance Visit or Community Assistance Contact?	8/22/2012
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)	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; Undecided

TABLE: COMMUNITY CLASSIFICATIONS					
	Participating?	Classification	Date Classified		
Community Rating System	No	N/A	N/A		
Building Code Effectiveness Grading Schedule	Yes	4	2007		
Public Protection	Yes	1	2008		
StormReady	Yes	Gold (Countywide)	2014		
Tree City USA	Yes	N/A	2017		

## 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: 21
- 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)	Date	Preliminary Damage Assessment		
Severe Weather	-	8/25/2014	-		
Flash Flooding	-	6/21/2014	-		
Severe Weather	-	Annual Events Typical	Storms cause urban flooding, impacting streets and building basements – High winds cause power outages, fallen trees and structural damage		
Severe Winter Weather	-	Annual Events Typical	Heavy snows impact streets and ice conditions impact electric utilities		
Severe Storms	DR-4116	2013	-		
Severe Winter Storms	DR-1960	2011	-		
Severe Storms/Flooding	DR-1935	2010	-		
Severe Storms/Flooding	DR-1800	2008	-		
Severe Storms/Flooding	DR-1729	2007	-		
Severe Winter Storm	EM-3161	2000	-		
Winter Snow Storm	EM-3134	1999	-		

Flooding	DR-1188	1997	-
Flooding	DR-1129	1996	-
Severe Storms/Flooding	DR-997	1993	-
Severe Storms/Flooding	DR-798	1987	-
Severe Storms/Flooding	DR-776	1986	-

#### **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:* The Village of Skokie has two key roads that are prone to flooding: Skokie Blvd (Highway 41) viaduct South of Oakton Street and McCormick Blvd. (mostly South of Howard St). Also, despite maintaining existing flood control systems, we experience flooding at Devonshire Park, Touhy Ave, and areas south of Touhy.

**Extreme Heat:** We have experienced elderly housing facilities and existing shelters (cooling centers) without emergency power to maintain acceptable conditions.

*High Winds:* We have experienced elderly housing facilities and existing shelters without emergency power. Our community has predominately overhead power lines that are subject to power outages.

**Extreme Cold:** We have experienced elderly housing facilities and emergency shelters (warming centers) without emergency power, leading the facilities to be unable to maintain acceptable conditions. Previously, during extreme cold events, our shallow water mains have been susceptible to freezing (e.g. Oakton St. east of Crawford during the 2019 Polar Vortex).

*Ice Storms:* Similar to the impacts of high winds, our Village's predominately overhead power lines are vulnerable to ice damage.

## 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	Severe Weather	54				
2	Severe Winter Weather	54				
3	Flood	39				
4	Tornado	33				
5	Earthquake	16				
6	Drought	2				
7	Dam Failure	0				

#### 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						
Status	Hazards Mitigated	Objective s Met	Sources of Funding	Timeline/Projecte d Completion Date (a)			
prone areas	<b>Action S4.1</b> —Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structural damage. Give priority to properties with exposure to repetitive losses.						
Ongoing	All	7, 13	Village of Skokie	High	FEMA Hazard Mitigation Grants	Long-Term (depending on funding)	
Action S4.2	—Continue to	o support th	e countywide a	actions identified in	this plan.		
Ongoing	All	All	Village of Skokie	Low	General Fund	Short- and Long- term	
Action S4.3	Action S4.3—Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3,4,6	DHSEM Village of Skokie	Low	General Fund	Short-Term	
	Action S4.4—Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.						

Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Village of Skokie	Low	General Fund	Long-term
programs the adopted floor providing programs the adopted floor providing programs the adopted floor programs the adopted floor providing programs the adopted floor providing providing providing programs the adopted floor providing prov	Action S4.5—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. This would include resolving compliance issues identified by IDNR during the 8/22/2012 CAV.					
Ongoing	Flooding	4, 6, 9	Village of Skokie	Low	General Fund	Short-term and ongoing
Action S4.6 events.	—Where feas	sible, implen	nent a program	to record high wa	ter marks foll	owing high-water
Ongoing	Flooding, Severe Weather	3, 6, 9	Village of Skokie	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
	—Integrate tl redevelopme		itigation plan ir	nto other plans, pro	ograms, or re	sources that dictate
Complete d	All	3, 4, 6, 10, 13	Community Developmen t	Low	General Fund	Completed
	—Actively pu District – We		tallation of an e	emergency generat	or to support	the shelter at
Ongoing	All	1, 2	Village of Skokie	\$250,000; High	General Fund, CIP, FEMA Grants	Short-term
<b>Action S4.9</b> —Sewer system improvements, professional engineering services to supplement the engineering division for programmed multitier combined sewer system improvements. This is an annual expenditure with \$1,000,000 for sewer rehabilitation and the balance used for engineering services and sewer infrastructure videoing.						
Ongoing	Urban Flooding, Severe Weather	1, 2	Village of Skokie	\$850,000; High	General Fund, CIP, FEMA Grants	Long-term
Action S4.10—Analyze and mitigate specific flood control system issues including basement backups and serious overland flooding cases toward reasonable solutions through system redesign if necessary.						

Ongoing	Urban Flooding, Severe Weather	1, 2, 9	Village of Skokie	\$45,000; Mediu m	General Fund	Long-term
Action S4.1 and Skokie		trol efforts i	nclude remedi	ation and repair wo	ork on the Ga	bion Pond – Oakton
Complete d	Urban Flooding, Severe Weather	1, 2, 9	Village of Skokie	\$650,000; High	General Fund, MDWR Phase II	Completed
	• •		stallation of a g lage of Skokie	generator to suppo	rt the use of	a shelter at North
New	Flood, Extreme Heat, Lightning, Hail, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widesprea d Power Outage, Secondary Impacts from Mass Influx of Evacuees	12	Village of Skokie	\$180,000; High	Grants, Local Funds	2021
	<b>Action S4.13</b> —Install Devonshire Park Rain Garden & Naturalized Detention Basin at the Skokie Police Headquarters					
New	Dam/Levee Failure, Flood	13	MWRD	\$500,000; High	MWRD	Unknown
Action S4.1 Elementary	•	it Flood Proj	ect at the Evan	ston/Skokie Schoo	l District 65 G	il at Orrington
New	Flood	2	MWRD	Unknown	MWRD	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 #	# 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	2	High	High	Yes	Yes	No	Medium
2	13	Medium	Low	Yes	No	Yes	High
3	3	Medium	Low	Yes	Yes	Yes	High
4	9	Medium	Low	Yes	No	Yes	Medium
5	3	Medium	Low	Yes	No	Yes	High
6	3	Medium	Medium	Yes	Yes	No	Medium
7	5	Medium	Low	Yes	No	Yes	High
8	2	Medium	Low	Yes	Yes	No	High
9	2	Medium	Moderate	Yes	No	Yes	Moderate
10	2	Medium	Low	Yes	No	Yes	Moderate
11	2	Medium	High	Yes	No	Yes	High
12	1	Medium	High	No	Yes	Unknown	Medium
13	1	High	High	Yes	Yes	Unknown	High
14	1	Low	Unknown	Unknown	Yes	Unknown	Low

a. See Chapter 1 for explanation of priorities

## **New Mitigation Actions**

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

Mitigation Action	Actively pursue the installation of a generator to support the use of a shelter at North Shore Center for Performing Arts, Village of Skokie		
Year Initiated	2019		
Applicable Jurisdiction	Village of Skokie		
Lead Agency/Organization	Village of Skokie		
Supporting Agencies/Organizations			
Applicable Goal	<ul> <li>Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>Develop, promote, and integrate mitigation action plans.</li> <li>Promote public understanding of and support for hazard mitigation.</li> </ul>		
Applicable Objective	Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.		
Potential Funding Source	Grant and Local Funding		
Estimated Cost	\$180,000		
Benefits (loss avoided)	The project would ensure that a shelter could be maintained during a major power outage		
Projected Completion Date	2021		
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)	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).		
Actual Completion Date			

Recommended Mitigation Action/Implementation Plan and Project Description					
Plan and Project	Installation of a generator that would maintain electrical supply for essential building components would allow the use of the North Shore Center for Performing Arts to be utilized as an emergency shelter. Current shelter options do not have an emergency power supply.				

	Mitigation Action and Project Maintenance				
Year	Status	Comments			
2019	New				
2020					
2021					
2022					
2023					

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

Mitigation Action	Install the Devonshire Park Rain Garden & Naturalized Detention Basin at the Skokie Police Headquarters
Year Initiated	2018
Applicable Jurisdiction	Village of Skokie
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	Village of Skokie
Applicable Goal	<ul> <li>Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> </ul>
Applicable Objective	<ul> <li>Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
Potential Funding Source	MWRD
Estimated Cost	\$500,000; MWRD Contribution: \$200,000
Benefits (loss avoided)	N/A
Projected Completion Date	TBD
Priority and Level of Importance (Low, Medium, High)	High
Benefit Analysis (Low, Medium, High)	High
Cost Analysis (Low, Medium, High)	High
Actual Completion Date	

Recommend	Recommended Mitigation Action/Implementation Plan and Project Description				
Action/Implementation Plan and Project Description:	ID: Skokie Contract: 16-IGA-10 Watershed: North Branch Location: Skokie, IL Construction of rain garden at Devonshire Park and a naturalized detention basin at the Village of Skokie Police Headquarters. Basin is designed to receive runoff from police station rooftop. MWRD provided funding for 40% of the				
	total \$500,000 construction cost. Project provides 46,424 gallons of design				

retention capacity in a flood-prone area. The Village is to provide long term maintenance per the intergovernmental agreement.

	Mitigation Action and Project Maintenance			
Year	Status	Comments		
2018	New			
2019	Ongoing	Substantially completed in 2018		
2020				
2021				
2022				
2023				

	Mitigated Hazards	
	All Hazards	
Х	Dam/Levee Failure	
	Drought	
	Earthquake	
Х	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	

Mitigation Action  Year Initiated  Applicable Jurisdiction	Implement the Flood Project at the Evanston/Skokie School District 65 GI at Orrington Elementary School  2019  Village of Skokie
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	Village of Skokie
Applicable Goal	<ul> <li>Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> </ul>
Applicable Objective	Increase the resilience of (or protect and maintain) infrastructure and critical facilities.
Potential Funding Source	MWRD
Estimated Cost	N/A
Benefits (loss avoided)	N/A
Projected Completion Date	TBD
Priority and Level of Importance (Low, Medium, High)	Low
Benefit Analysis (Low, Medium, High)	Low
Cost Analysis (Low, Medium, High)	N/A
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

Mitigated Hazards	
All Hazards	

	Dam/Levee Failure
	Drought
	Earthquake
Х	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)
# S-4.1	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: 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)
# S-4.2	Continue to sup	oport the county wide 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			en

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# S-4.3	Actively participate in the plan maintenance strategy identified in this plan.		
Status Description: Yes		0	
C = Proj	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)	
# S-4.4	Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.		
Status Description: Yes		0	
<b>C</b> = Pi	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)	
# S-4.5	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. This would include resolving compliance issues identified by IDNR during the 8/22/2012 CAV.		
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)	
# S-4.6	Where feasible, implement a program to record high water marks following high-water events.		
Status Description: Yes		0	
C = Pro	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)				
# S-4.8	Actively pursue the installation of an emergency generator to support the shelter at Skokie Park District – Weber Center.					
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					
# S-4.9	Sewer system improvements, professional engineering services to supplement the engineering division for programmed multitier combined sewer system improvements. This is an annual expenditure with \$1,000,000 for sewer rehabilitation and the balance used for engineering services and sewer infrastructure videoing.					
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			
# S-4.10 Analyze and mitigate specific flood control system issues including basement backups and serious overland flooding cases toward reasonable solutions through system redesign if necessary.				
Status Description: Yes		0		
C =	Completion status legend:  N = New O = Action Ongoing toward Completion  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)			
# S-4.7	7 Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.				
Status Description: Yes		С			
<b>C</b> = Pr	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				
# S-4.11	Flood control efforts include remediation and repair work on the Gabion Pond – Oakton and Skokie Blvd.				
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

No needs have been identified at this time.

# Additional Comments

No additional comments at this time

## HAZUS-MH Risk Assessment Results

SKOKIE EXISTING CONDITIONS				
2010 Population	64,784			
Total Assessed Value of Structures and Contents	\$16,803,965,999			
Area in 100-Year Floodplain	41.17 acres			
Area in 500-Year Floodplain	41.47 acres			
Number of Critical Facilities	122			

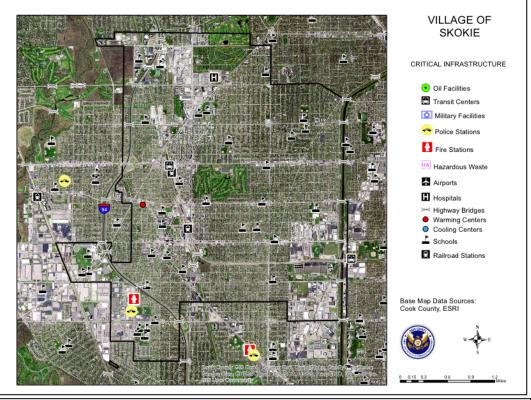
HAZARD EXPOSURE IN SKOKIE							
	Number	Exposed	Value Expos	ed to Hazard		% of Total Assessed	
	Population	Buildings	Structure	Contents	Total	Value Exposed	
Dam Failure							
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%	
Touhy	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%	
Flood	Flood						
100-Year	0	0	\$0	\$0	\$0	0.0%	

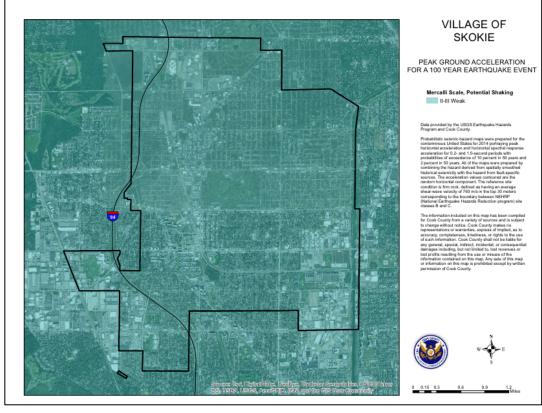
500-Year	0	0	\$0	\$0	\$0	0.0%	
Tornado	Tornado						
100-Year	_	_	\$1,060,450,456	\$836,883,784	\$1,897,334,240	11.29%	
500-Year	_	_	\$2,291,974,124	\$1,463,475,394	\$3,755,449,518	22.35%	

ESTIMATED PROPERTY DAMAGE VALUES IN SKOKIE						
	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	\$58,566,076	\$12,555,043	\$71,121,120	0.42%		
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	\$106,045,046	\$83,688,378	\$189,733,424	1.13%
500-Year	\$334,628,222	\$213,667,408	\$548,295,630	3.26%

# Hazard Mapping







#### VILLAGE OF SKOKIE

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.

Chicago and Cook County.

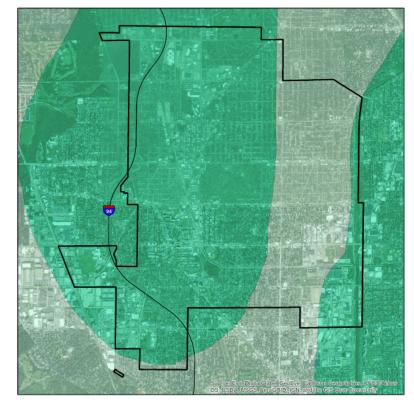
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DISCLAIMER: The Cook County MWRDGC 100-year hundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps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





0 0.15 0.3 0.6 0.9 1.2



## VILLAGE OF SKOKIE

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

low

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

Data provided by the terrors state consequent servey and Cook County.

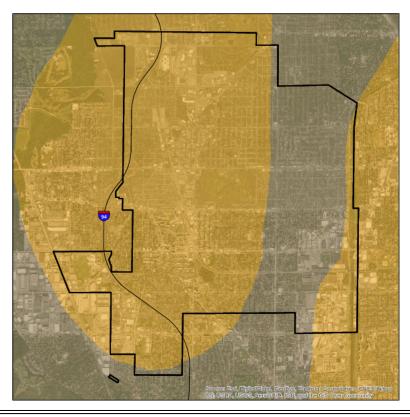
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sections, which influences much of the ampreciation. The information in clusted on this map has been compiled for Coast, County, I term a variety of sucress and is subject representation or warrieties, expense of implied, as to accuracy, completeness, timefreess, to regist to the use of such information. Could County that not be listed for all county information. Could County that not be listed for all county informations. Could County that not be listed for all county informations to cold county after not be successed of the county of the co





0 0.15 0.3 0.6 0.9 1.2 Miles



#### VILLAGE OF SKOKIE

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.

The Central United States Euriqueite Consortium (CUSEC) State Geologists produced a regional Solid Sci. Lisas mag (NEHR) Sol Profils Typa Map), a Usuardical Susciposition May and a Soli Response Usuardical Susciposition May and a Soli Response Marchine Consistency of Consortium Consort

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0.15 0.3 0.6 0.9



#### VILLAGE OF SKOKIE

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.



0 0.15 0.3 0.6 0.9 1.2 Mile