

## Sauk Village

### Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
Stephen Barrett, Fire Chief Sauk Village Fire Department Email Address: sbarrett@saukvillage.org	Derrick Burgess, Mayor Village of Sauk Village Email address: dburgess@saukvillage.org

### Jurisdiction Profile

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

**Date of Incorporation:** 1957

**Current Population:** The 2020 U.S. Census population was 9,921. The 2022 U.S. Census estimate indicated the population was 9,578.

**Population Growth:** The overall population has decreased by 7.42% between 2018 and 2022.

**Location and Description:** Sauk Village is in far south east Cook County approximately 20 miles south of the Chicago border. Sauk Village is bordered by Chicago Heights, Ford Heights, and Lynwood to the north; Steger and Crete to the south, South Chicago Heights to the west; and Dyer, Indiana to the east. Sauk Village is 3.4 square miles and is predominately a bedroom community. In recent years, a warehouse/small industry district was developed on the west side of IL 394 which runs through Sauk Village.

**Brief History:** The area that is now Sauk Village was originally named Strassburg after a town in France. Many of the original settlers were from France and Germany and had moved west from the east coast. When the Calumet Expressway (now IL 394) was opened in the late 1950s, the area was seen as prime real estate and construction of homes began. The town was incorporated in 1957 as Sauk Village since there was already a Strassburg in southern Illinois. Over the years, more subdivisions were built and in the 1990s, Sauk Village began to see an influx of bigger businesses moving in.

**Climate:** Sauk Village's climate is warm during summer when temperatures tend to be in the 70s and very cold during winter when temperatures tend to be in the 20s. The warmest month of the year is July with an average maximum temperature of 83.70 degrees Fahrenheit, while the coldest month of the year is January with an average minimum temperature of 14.80 degrees Fahrenheit. Temperature variations between night and day tend to be fairly limited during summer with a difference that can reach 19 degrees Fahrenheit, and fairly limited during winter with an average difference of 15 degrees Fahrenheit. The annual average precipitation at Sauk Village is 38.65 inches. Rainfall is fairly evenly distributed throughout the year. The wettest month of the year is June with an average rainfall of 4.66 inches.

**Governing Body Format:** Sauk Village is governed by an elected six-member Board of Trustees, Mayor, and Village Clerk. This body of Government will assume the responsibility for the adoption and implementation of this plan. The Village Board of Trustees hires the Village Manager/Administrator (according to ordinance re-establishing the position in 2011 and rescinded in 2012 not since re-established), Treasurer, Police Chief, Fire Chief, EMA Director, Public Works Superintendent, other Village Department Heads and members of Committees and Commissions with the “advice and consent” of the Village Board of Trustees. Sauk Village operates six departments including: Community Development, Finance Department, Fire Department, Police Department, Public Works Department, and Emergency Management Agency.

**Development Trends:** The largest growth of the village came in the early 1990s when the village annexed nearly 1 square mile as a result of a major land grab with neighbors Steger and Ford Heights. The largest parcel annexed came in 1991 when 500 acres at the northwest corner of Sauk Trail and the Calumet Expressway was finally added to the village. Development would finally take off in 2004 when Sauk Village marketed the property to national developers. In November 2004 the company entered into a development agreement with the village. In March 2005, development on the first 100 acres began. In its master plan, the company planned to spend \$150 million to develop 5,000,000 square feet of warehouse and manufacturing space. Logistics Center Business Park currently occupies 325 acres and has a 496,260-square-foot distribution facility (expandable up to 1.2 million square feet). The 1990s saw completion of the Deer Creek Subdivision on Sauk Village’s far west boundary, the Carolina subdivision, and another modular home community that was completed in the early 2000s in the far northeast jurisdiction. Housing development stopped in 2005. The newest subdivision named Lincoln Meadows started with access from Steger Rd with plans to hook into the original Indian Hill subdivision at Yates and Jeffrey Avenues. Approximately 50 homes were built, but the project stopped short when the housing market turned sour in the mid-2000s. In 2018 Sauk Village closed on the sale of 32 acres of land the Village owned for 14 years. Sauk Village made \$1.35 million dollars on the deal. A Gas-N-Wash came to Sauk Village, a great addition to the community that will bring in over \$500,000 in revenue to the Village each year, which will provide the residents with a gas station, car wash, restaurant and about 80 new jobs. Economic Development has been a key component to the Strategic Plan for Progress and reiterates the commitment in our new Comprehensive Plan. Sauk Village has secured a \$350,000 grant for Phase 1 Engineering in the LogistiCenter. The study is critical for the expansion of the industrial park which will bring Sauk Village new business opportunities. The study will get underway in 2019 and will be completed by 2020.

**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 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
<b>Codes, Ordinances &amp; Requirements</b>					
Building Code	Yes	No	No	Yes	In accordance with Public Act 096-0704, Illinois has adopted the IBC as its state Building Code. SVC, Chapter 14, article II, 2021
Zonings	Yes	No	No	Yes	(65 ILCS 5/) Illinois Municipal Code. SVC, Chapter 82, 2/12/2013
Subdivisions	Yes	No	No	Yes	SVC, Chapter 82, Article 5, 2/12/2013
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. SVC, Chapter 26, Article III, 2/12/2013
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	Yes	No	No	No	SVC, Chapter 82, Article IV, section 82-98, 2/12/2013
Public Health and Safety	Yes	No	No	Yes	Fire- 1977/2005 Police- 1977/2005 EMA- 1977/2005

					Public Health-1977/2005
Environmental Protection	Yes	No	No	No	SVC, Chapter 26,2/12/2013
<b>Planning Documents</b>					
General or Comprehensive Plan	Yes	No	No	No	Adopted March 26, 2019
<i>Is the plan equipped to provide integration to this mitigation plan?</i>					N/A
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	Yes	No	Yes		Regional stormwater impacts are managed by MWRD. The Village lies within the Little Calumet 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	No	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.

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 and Risk Assessment	No	No	Yes	No	Cook County EMRS Preparing
Terrorism Plan	No	No	Yes	Yes	Cook County EMRS
Post-Disaster Recovery Plan	No	No	No	No	
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	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	Yes
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	

<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	Robinson Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Robinson Engineering
Planners or engineers with an understanding of natural hazards	Yes	Robinson Engineering
Staff with training in benefit/cost analysis	Yes	Village Finance Director
Surveyors	Yes	Robinson Engineering

Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	Fire Chief
Emergency manager	Yes	Fire Chief
Grant writers		

<b>TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE</b>	
What department is responsible for floodplain management in your jurisdiction?	Department of Public Works
Who is your jurisdiction's floodplain administrator? (department/position)	Department of Public Works
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	2000
When was the most recent Community Assistance Visit or Community Assistance Contact?	2/1/1998
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- Robinson Engineering
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?	Unknown
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

### **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 afterwards 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 provide the following services: permit reviews, GIS, inspections, engineering capability.
- Our community enforces local floodplain regulations and monitors compliance.

### **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 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:*

Sec. 26-82 Definitions

*Substantial improvement* means any reconstruction, rehabilitation, addition, or improvement of a structure taking place subsequent to the adoption of this ordinance in which the cumulative percentage of improvements equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started.

(1) "Substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures which have incurred repetitive loss or substantial damage, regardless of the actual work done.

(2) The term does not, however, include either:

- a. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
- b. Any alteration of a "historic structure" listed on the National Register of Historic Places or the Illinois Register of Historic Places, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Sec. 26-257 Duties of Enforcement Official

The zoning and code enforcement superintendent shall be responsible for the general administration and enforcement of this article which shall include the following:

(1) *Determining the floodplain designation.* Check all new development sites to determine whether they are in a special *flood* hazard area (SFHA). If they are in an SFHA, determine whether they are in a floodway, *flood* fringe or a floodplain on which a detailed study has not been conducted which drains more than one square mile.

(2) *Professional engineer review.* If the development site is within a floodway or in a floodplain on which a detailed study has not been conducted which drains more than one square mile, then the permit shall be referred to a registered professional engineer (PE) under the employ or contract of the village for review to ensure that the development meets the requirements of division 4 of this article. In the case of an appropriate use, the PE shall state in writing that the development meets the requirements of division 4 of this article.

Their ordinance did not include substantial improvement / substantial damage rule provisions; future updates will consider 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	No	N/A	N/A
Public Protection/ISO	Yes	3	2019
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	No	N/A	N/A

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

Opportunities to expand and improve capabilities include developing a strategy to identify and set aside municipal funds to assist with the 25% cost match for FEMA HMA mitigation grants. Due to the technical expertise needed to develop grant applications and benefit cost analyses for FEMA HMA grants, Sauk Village has a need for qualified grant writers to assist in the development and management of these grants.

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

#### **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
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**State Disaster Declarations**

Date Declared	Event
7/26/2010	Severe Storms, High Winds, Torrential Rain
1/31/2011	Winter Weather
4/25/2011 5/25/2011	High Wind, Tornadoes, Torrential Rain
4/18/2013 4/20/2013 4/21/2013 4/25/2013 4/30/2013	Severe Storms, Heavy Rainfall, Flooding, Straight-line Winds
1/6/2014	Heavy Snowfall, Frigid Temperatures
7/12/2017 7/14/2017	Thunderstorms, Heavy Rainfall, Flooding
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
Hail	-	7/7/2017	-
Winter Storms	-	1/2013 – 2/2013	Extreme frigid temperatures closed schools Provide warming stations during cold spells. We had almost 90 inches of snow during this winter season
High Winds	DR-4116	4/2013	Damage to several homes (roof, tree damage, flooding and power outages
Flooding	-	8/2010	Major flooding throughout the region that affected homes and travel everywhere
Winter Storm	-	2009 - 2010	Extreme temperatures and snow which caused traveling difficulty,

			causing water main breaks throughout town
Lightning	-	Summer 2000s	Lightning strikes caused damage to several homes
High Wind	-	Early 1980s	New homes being built destroyed by major wind storm
Winter Storm Blizzard	-	1981 or 1982	Snow storm created difficulty to travel in town and throughout region
Winter Storm Blizzard	-	1978	Closed roads and made it hard to travel in town caused problems in responding to emergency calls
Winter Storm Blizzard	-	1967 - 1968	Extreme amount of snow that caused havoc and created problems where kids could not attend school and residents had to walk to stores store shelves became empty because delivery trucks could not get in town
Winter Storm Blizzard	-	1967 - 1968	Extreme amount of snow that caused havoc and created problems where kids could not attend school and residents had to walk to stores store shelves became empty because delivery trucks could not get in town

### **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's elderly and Infrastructure are vulnerable to the impacts of flooding. The Village also lacks low areas and collection areas. There are multiple areas and streets that are subject to urban flooding during heavy rain down fall; 221st and Yates, 223rd place and Strassburg.

**Earthquake:** The aging Fire Department is not seismically reinforced.

**Extreme Heat:** The elderly and children are vulnerable to extreme heat. Moreover, the Village lacks adequate power sources (alternative supplies, generators, lack backup systems, cooling centers, and staffing).

**High Winds:** The elderly are vulnerable to high winds. The Village lacks adequate power sources (alternative supplies, generators).

**Severe Winter Weather:** Sauk Village has a huge elderly population.

**Snow:** The elderly are vulnerable to the impacts of snow. The Village does not have enough warming shelters and warming shelter supplies (alternative power sources, bedding, and evacuation).

**Blizzards:** The elderly are vulnerable to the impacts of blizzards. The Village does not have enough warming shelters and warming shelter supplies (alternative power sources, bedding, and evacuation).

**Extreme Cold:** The elderly are vulnerable to the impacts of extreme cold. The Village does not have enough warming shelters and warming shelter supplies (alternative power sources, bedding, and evacuation).

**Ice Storms:** The elderly are vulnerable to the impacts of ice storms. The Village does not have enough warming shelters and warming shelter supplies (alternative power sources, bedding, and evacuation).

**Tornado:** The Village requires more power sources and alternative sources (generators), as well as evacuation planning, and shelter for evacuees to minimize the impacts of tornadoes. Additionally, the village has 3 mobile home parks; Weatherstone Lakes, Candlelight Village and Carlisle Estate which are all located near Lincoln Hwy and Torrence.

**Wildfire (Wildfire Smoke):** Sauk Village has Multiple Forest Preserves on Burnham Ave.

Indicator	Number	Percent
Families in poverty	803	18.8%
People with disabilities	2,733	14.7%
People over 65 years	2,212	11.9%
People under 5 years	1,319	7.1%
People of color	14,931	80.3%
Black	12,498	67.2%
Native American	15	0.1%
Hispanic	2,131	11.5%
Difficulty with English	165	1%
Households with no car	495	8%
Mobile homes	823	13.3%

*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	Tornado
4	Flood
5	Earthquake
6	Drought
7	Dam Failure

## New Mitigation Actions

The following are new mitigation actions created during the 2024 update.

### Action S-1.12

Mitigation Action #12: Property acquisition and relocation					
<b>Lead Agency/Department Organization:</b> Fire Chief	<b>Supporting Agencies/Organizations:</b>	<b>Estimated Cost:</b> High	<b>Potential Funding Source:</b> Building Resilient Infrastructure and Communities (BRIC)	<b>Estimated Projected Completion Date:</b> Short-term	<b>Hazard(s) Mitigated:</b> Earthquake Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds) Severe Winter Weather (Ice Storm, Heavy Snow, Blizzards, Extreme Cold) Tornado
<b>Year Initiated</b>		2025			
<b>Applicable Jurisdiction</b>		Village of Sauk Village			
<b>Applicable Goal</b>		1,2,3,4,5,6			
<b>Applicable Objective</b>		All			
<b>Cost Analysis (Low, Medium, High)</b>		High			
<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>	property acquisition and relocation,
<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	N

## Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2024 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

### Action S-1.1

Mitigation Action #1: 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>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> High	<b>Potential Funding Source:</b> FEMA Hazard Mitigation Grants, BRIC, HMGP, FMA	<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 Sauk Village				
<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>	To be considered when funding is available.
<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 S-1.2**

<b>Mitigation Action #2: 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 Sauk Village				
<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>	Transmittal of required information to keep the plan updated.				
<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 S-1.3**

<b>Mitigation Action #3: 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 Sauk Village				
<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>	Transmittal of required information to keep the plan updated.				
<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 S-1.4

<b>Mitigation Action #4: 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 Sauk Village			
<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>		To be considered in the future.			
<b>Actual Completion Date or Ongoing Indefinite</b>					
<b>Project Status &amp; Changes in Priority</b> <b>Completion status legend:</b> N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

## Action S-1.5

<b>Mitigation Action #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.</b>
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<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 Sauk Village			
<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>		For proposed new developments, Sauk Village ensured that developments would not be located in floodplain areas to minimize the risk of losses during flooding events.			
<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 S-1.6**

<b>Mitigation Action #6: Where feasible, implement a program to record high water marks following high-water events.</b>					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> Medium	<b>Potential Funding Source:</b> General Fund: FEMA Public	<b>Estimated Projected Completion Date:</b> Long Term	<b>Hazard(s) Mitigated:</b> Flooding; Severe Weather

			Assistance (PA)		
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Sauk Village				
<b>Applicable Goal</b>	1,2,5				
<b>Applicable Objective</b>	3,6,9				
<b>Cost Analysis (Low, Medium, High)</b>	Medium				
<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>	To be considered in the future.				
<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 S-1.7**

<b>Mitigation Action #7: Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.</b>					
<b>Lead Agency/Department Organization:</b> Robinson Engineering	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> Medium	<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 Sauk Village				
<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>	A new comprehensive plan is in the process of being prepared for the Village. The hazard mitigation plan will be integrated into this plan.
<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 S-1.8**

<b>Mitigation Action #8: 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> Public Works	<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> Long-term and Ongoing	<b>Hazard(s) Mitigated:</b> All
<b>Year Initiated</b>	2014				
<b>Applicable Jurisdiction</b>	Village of Sauk Village				
<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>	Sauk Village is beginning to plan for the development of CIPs for the Village's infrastructure.
<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 S-1.10**

<b>Mitigation Action #10: Back up Generator Systems</b>					
<b>Lead Agency/Department Organization:</b> Sauk Village Safety Committee	<b>Supporting Agencies/ Organizations:</b> EMA, Fire, Police, Public Works	<b>Estimated Cost:</b> Under investigation: High	<b>Potential Funding Source:</b> General Fund, Fundraisers, Donations	<b>Estimated Projected Completion Date:</b> Short-term	<b>Hazard(s) Mitigated:</b> Drought, Earthquake, Flood, Extreme Heat, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widespread Power Outage, Secondary Impacts from Mass Influx of Evacuees, Hazardous Materials Release
<b>Year Initiated</b>		2019			

<b>Applicable Jurisdiction</b>	Village of Sauk Village
<b>Applicable Goal</b>	1,2,3,4,5,6
<b>Applicable Objective</b>	1,2
<b>Cost Analysis (Low, Medium, High)</b>	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).
<b>Priority and Level of Importance (Low, Medium, High)</b>	High
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	High - Project will provide an immediate reduction of risk exposure for life and property.
<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 S-1.11**

<b>Mitigation Action #11: Utilize green infrastructure to address urbanized flood-prone area</b>					
<b>Lead Agency/Department Organization:</b> Village Administration	<b>Supporting Agencies/ Organizations:</b>	<b>Estimated Cost:</b> High	<b>Potential Funding Source:</b> General Fund, HMGP	<b>Estimated Projected Completion Date:</b> Long-term	<b>Hazard(s) Mitigated:</b> Flood, Snow
<b>Year Initiated</b>	2019				
<b>Applicable Jurisdiction</b>	Village of Sauk Village				
<b>Applicable Goal</b>	1,2,3,4,5,6				
<b>Applicable Objective</b>	3,13				



<b>Cost Analysis (Low, Medium, High)</b>	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).
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium
<b>Benefits of the Mitigation Project</b> (Loss Avoided or Issue Being Mitigated)	<p>Stormwater management and green infrastructure will help reduce flooding events, particularly street and basement flooding issues, while also improving water quality.</p> <p>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.</p>
<b>Action/Implementation Plan and Project Description:</b>	<p>While much of Sauk Village’s residential and commercial areas were built with some stormwater management infrastructure, many areas no longer meet the best practices. As a result, some areas may not have the green or grey infrastructure in place to handle significant rainfall events. Retrofitting existing development in Sauk Village can help reduce flooding events while also improving water quality. Stormwater management and green infrastructure can be incorporated at schools, churches, single-family, roadway and parkway redevelopments, especially those located in priority areas with higher risk of flooding.</p> <p>The following conceptual plans, as described in the Village’s 2019 Comprehensive Plan, can serve as pilot projects to be replicated elsewhere in Sauk Village and could be phased over several years depending on funding sources and partnership agreements:</p> <p>1. SCHOOL AND CHURCH CONCEPT PLAN. Three schools and five churches are located within the priority areas. Though Wagoner Elementary School was chosen to illustrate the concept, other schools and the local churches could consider how their campuses could be improved with these strategies. The Village should consider partnering with the Community Consolidated School District 168 and the local churches to implement regional stormwater management and green infrastructure projects on their properties. Through these partnerships green infrastructure projects could be incorporated into their capital improvement plans. In addition, grant proposals to redesign their green space, playgrounds, or athletic fields could incorporate stormwater</p>

	<p>management best practices. The school district could also apply for stormwater funds, such as MWRD's Green Infrastructure Fund, and note the additional educational benefits for students. Public rights-of-way (ROW) offer opportunities for the installation of green infrastructure practices such as permeable pavers, bioswales, and bioretention basins. Sauk Village should implement these practices in the parkways and other public ROWs during reconstruction or repair of streets, sidewalks, and storm sewers.</p> <p>2. RESIDENTIAL CONCEPT PLAN. A single-family residential neighborhood block located south of 223rd Street between Brookwood Drive and Murphy Avenue that has flooding issues was selected as an example. A conceptual plan developed for this area includes expanding the existing detention basin, along with the installation of bioswales that will minimize the amount of runoff being discharged to the pond.</p> <p>3. PARKWAY CONCEPT PLAN. 223rd Street is a transportation corridor with a significant large parkway in its ROW. A conceptual plan was developed for 223rd Street that incorporates bioswales to retain stormwater runoff from the roadway and reduce flow discharges to the storm sewer system and Lansing Ditch.</p> <p>4. PARKLAND CONCEPT PLAN. Park and undeveloped land adjacent to streams could be utilized for the installation of green infrastructure and dry detention basins that provide stormwater storage during high peak flow events. These areas could have multiple uses as they could serve as athletic/recreational fields most of the time and as off-line detention basins during storm events. Murphy Park, located by 224th Street and Theisen Avenue, is at the downstream end of a residential neighborhood with moderate road slopes that drain mainly to the park. A conceptual design for this park shows the use of permeable pavement to reduce stormwater discharges and adds surface detention storage to control stormwater volumes being discharged to the Lansing Ditch. Sauk Village should encourage private property owners to incorporate green infrastructure practices such as planting native trees and installing rain barrels, rain gardens, or bioswales in their yards. The Village could also create a voluntary cost sharing program that provides technical and financial assistance, as well as to help pay for private improvements that enhance drainage and mitigate flooding.</p>
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<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	X

## Completed Actions

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

Completed Action Items
Repair and replace old water system equipment and install air strippers to eliminate contaminants.

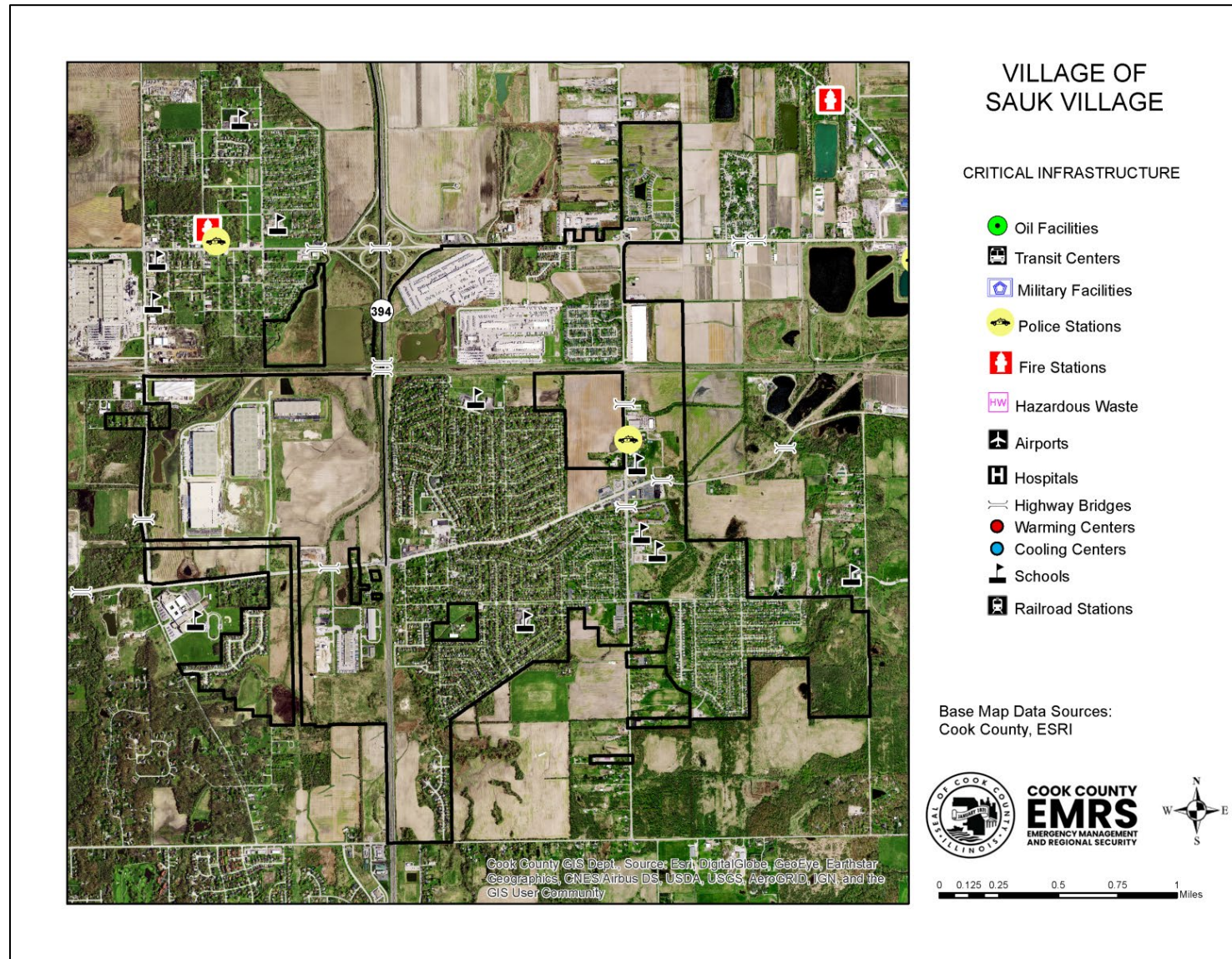
## Future Needs to Better Understand Risk/Vulnerability

No needs have been identified at this time.

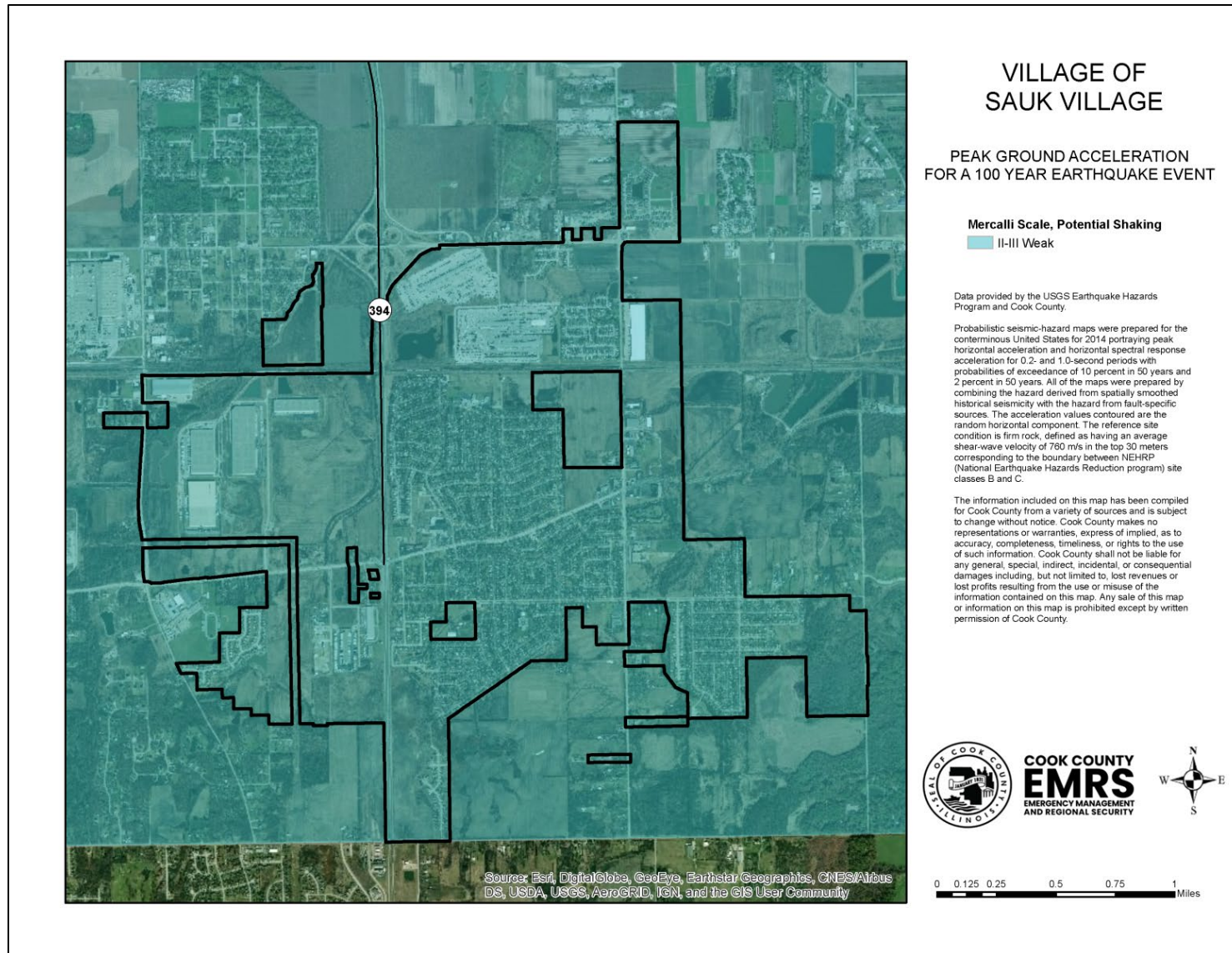
## Additional Comments

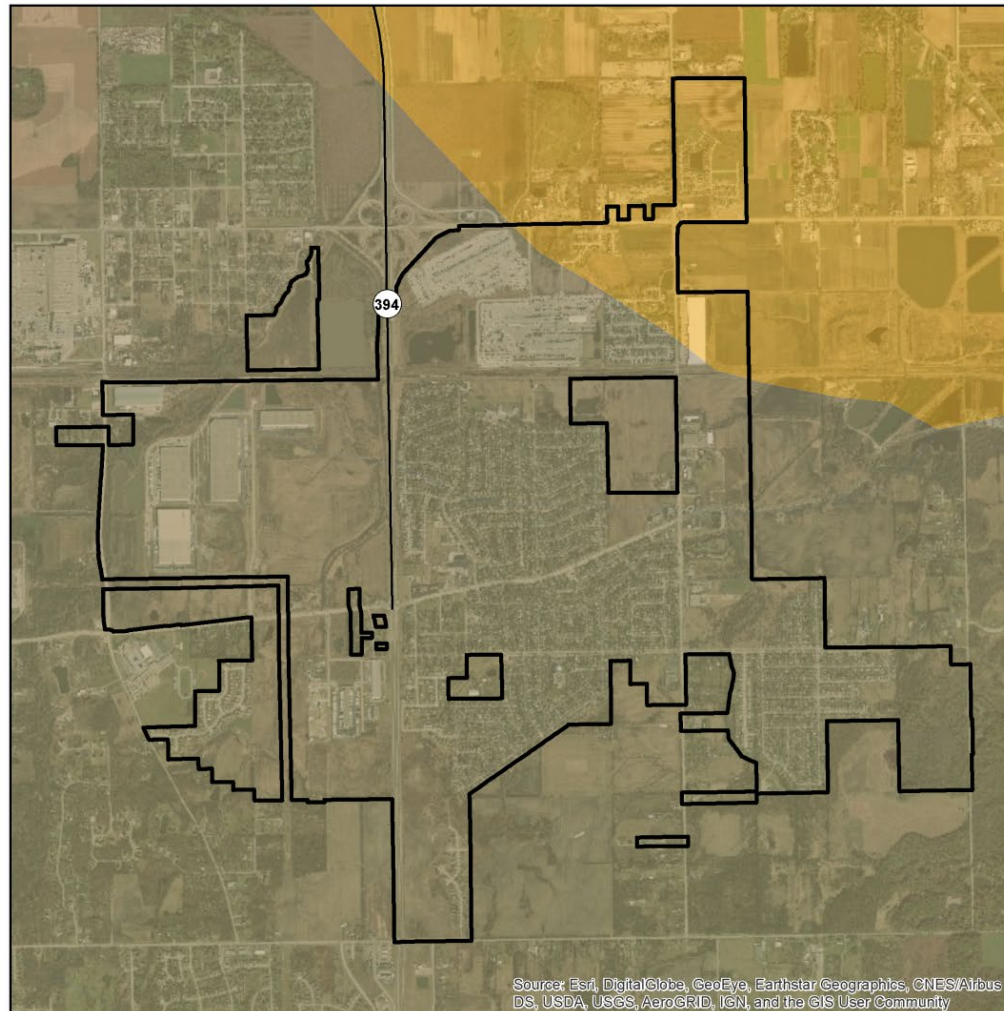
No additional comments at this time.

## Hazard Mapping









Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## VILLAGE OF SAUK VILLAGE

### 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 Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2769 Map of Surficial Deposits and Materials in the Eastern and Central United State (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Pennell (2003) was the base map used for this work. Each State Geological Survey produced its own state map version of the Soil Site Class and Liquefaction Susceptibility maps. The procedures outlined in the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 2002) were followed to produce the soil site class maps. CUSEC State Geologists used the entire column of soils material down to bedrock and did not include any bedrock in the calculation of the average shear wave velocity for the column, since it is the soil column and the difference in shear wave velocity of the soils in comparison to the bedrock which influences much of the amplification.

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 or 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.

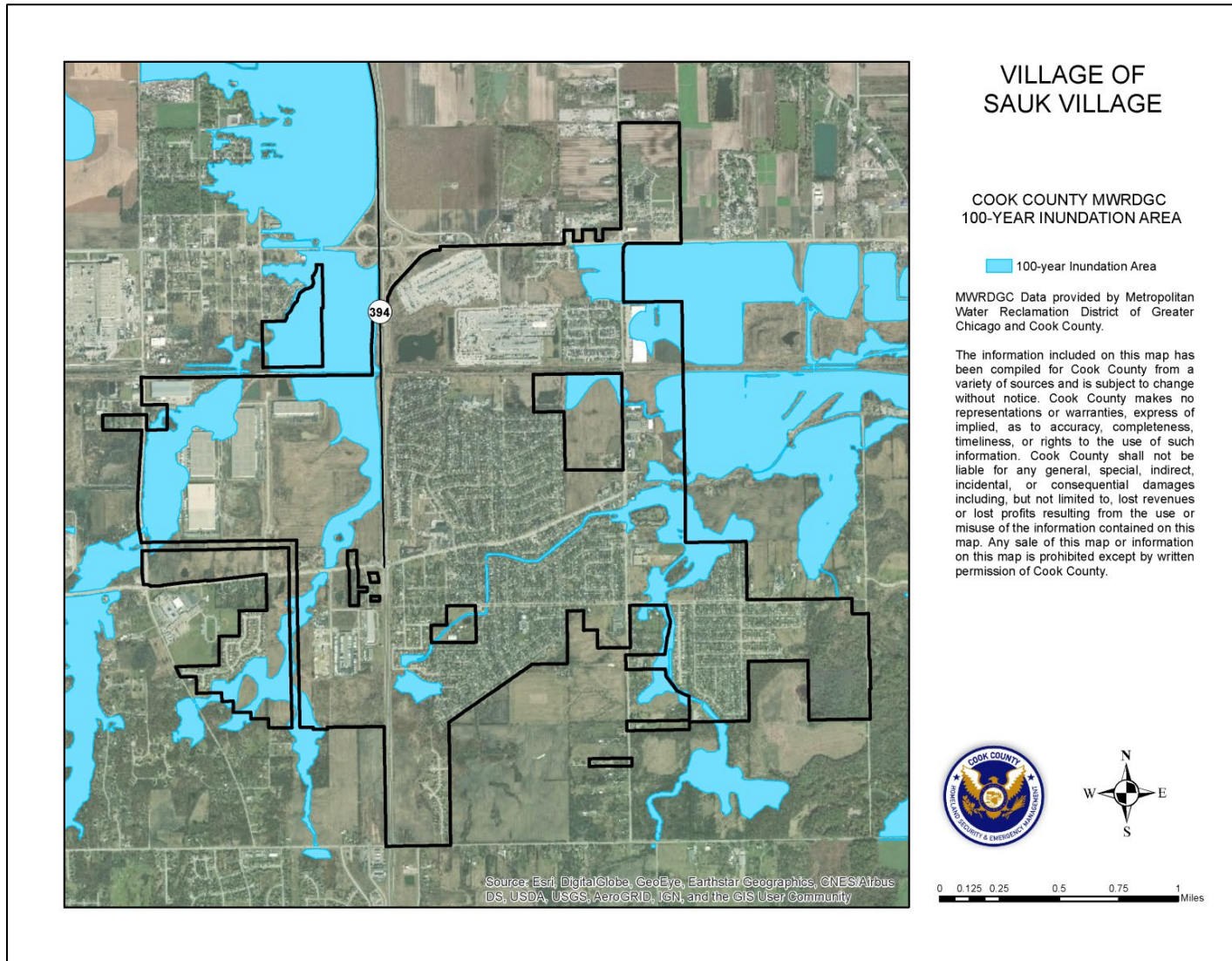


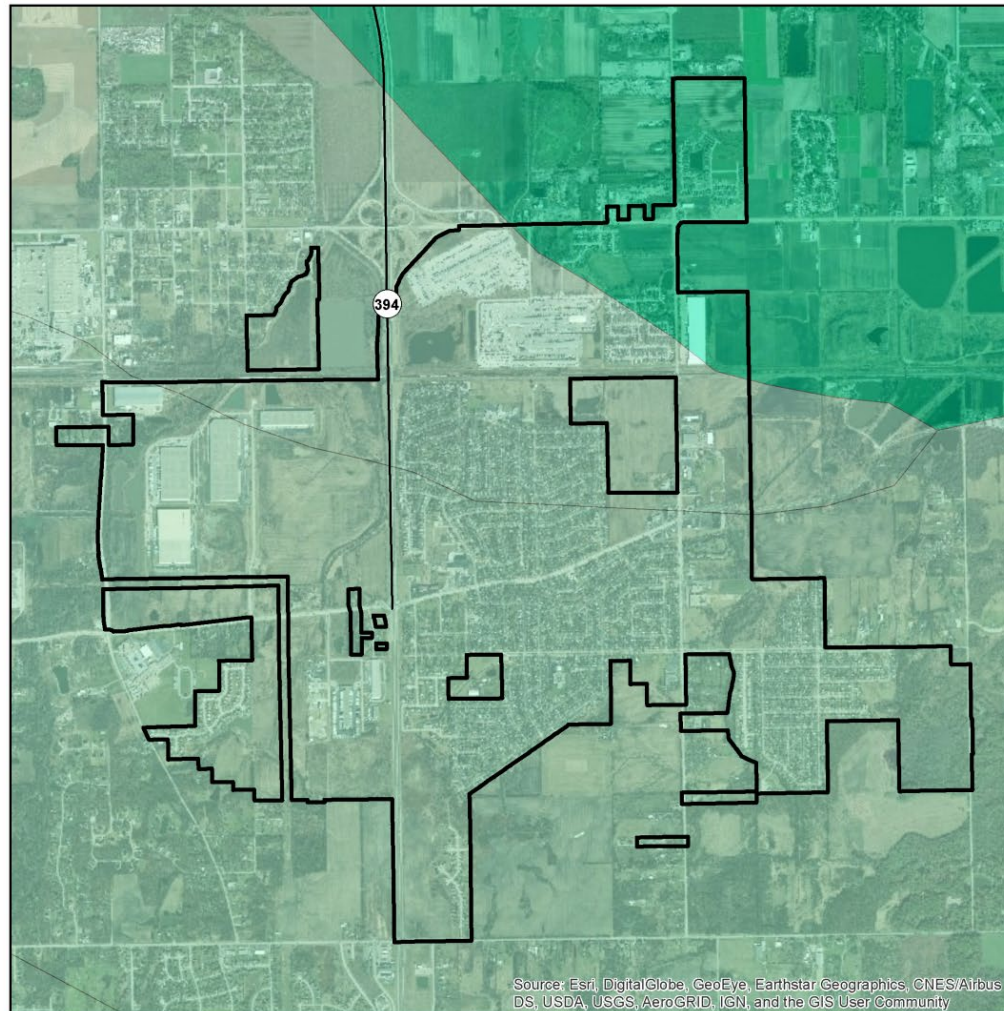
**COOK COUNTY**  
**EMRS**  
EMERGENCY MANAGEMENT  
AND REGIONAL SECURITY





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>.





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## VILLAGE OF SAUK VILLAGE

### LIQUEFACTION SUSCEPTIBILITY

#### LIQUEFACTION SUSCEPTIBILITY

- high
- low
- very low

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

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2789 Map of Surficial Deposits and Materials in the Eastern and Central United State (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Pennell (2003) was the base map used for this work. Each State Geological Survey produced its own state map version of the Soil Site Class and Liquefaction Susceptibility maps. The procedures outlined in the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 2002) were followed to produce the soil site class maps. CUSEC State Geologists used the entire column of soils material down to bedrock and did not include any bedrock in the calculation of the average shear wave velocity for the column, since it is the soil column and the difference in shear wave velocity of the soils in comparison to the bedrock which influences much of the amplification.

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**COOK COUNTY**  
**EMRS**  
EMERGENCY MANAGEMENT  
AND REGIONAL SECURITY



0 0.125 0.25 0.5 0.75 1 Miles





## VILLAGE OF SAUK VILLAGE

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.



**COOK COUNTY**  
**EMRS**  
EMERGENCY MANAGEMENT  
AND REGIONAL SECURITY



0 0.125 0.25 0.5 0.75 1 Miles