Western Springs

Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
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Jurisdiction Profile

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

Date of Incorporation: 1886

Current Population: The 2020 U.S. Census population was 13,629. The 2022 U.S. Census estimate indicated the population was 13,313.

Population Growth: The overall population has decreased by 0.68% between 2018 and 2022.

Location and Description: Western Springs, a suburb located along the Chicago, Burlington & Quincy Railroad (now the Burlington Northern Santa Fe) between Western Springs and Aurora, encompasses roughly the area among Willow Springs Road (Gilbert Avenue), Ogden Avenue, Interstate 294, and West Plainfield Road. Suburbs adjacent to Western Springs include La Grange Park and Westchester to the north, Indian Head Park to the south, Countryside and McCook to the east, and Hinsdale and Willowbrook to the west. Named for local mineral springs on the southwest side of town, Western Springs originally consisted of flat prairie land with a swamp on its western border. According to the US Census Bureau, Western Springs has a total land area of 2.79 square miles

Brief History: Western Springs was incorporated in 1886 and built services over time, including a fire department (1894), electric plant (1898), telephone services (1899), a park district (1923), and a library (1926). The Village expanded south of 47th Street, annexing the subdivisions of Forest Hills (1927), Springdale (1955), and Ridgewood (1973). On March 21, 2005, the Village of Western Springs annexed the former Timber Trails golf course which is now being developed into a new community of single-family homes and townhomes. The property added 105.9 acres (0.429 square kilometers) to the village.

Climate: The climate of Western Springs and the Chicago area is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and humid summers; pleasant autumns; and cold winters. Annual precipitation is average and reaches its lowest points in the months of January and February, and peaks in the months of May and June. Winter proves quite

variable. Seasonal snowfall in the Village has ranged from 9 – 90 inches. The daily average temperature in January at Midway Airport is 24.8 °F (−4.0 °C), and temperatures often stay below freezing for several consecutive days or weeks in January and February. Temperatures drop to or below 0 °F (−18 °C) on 5.5 nights annually at Midway and 8.2 nights at O'Hare. Spring in the Chicago area is perhaps the area's wettest and unpredictable season. Winter-like conditions can persist well into April and even occasionally into May. Thunderstorms are especially prevalent in the springtime as the areas lakeside location makes it a center of conflicts between large volumes of warmer and colder air, triggering many kinds of severe weather. Temperatures vary tremendously in the springtime; March is the month with the greatest span between the record highs and lows. On a typical summer day, humidity is usually moderately high and temperatures ordinarily reach anywhere between 78 and 92 °F (26 and 33 °C). The extreme heat that the Chicago area is capable of experiencing during the height of the summer season can persist into the autumn season. Temperatures have reached 100 °F high and subzero lows below −18 °C. Fall can bring heavy thunderstorms, many of which are capable of producing flooding. The average first accumulating snow occurs around November 19.

Governing Body Format: Western Springs operates with a Council-Manager form of government. In Western Springs, the Village President and the Board of Trustees make policy decisions for the Village. Whereas the Village Manager and his/her staff see that those policies are implemented into the day-to-day activities of the Village. The Village President and Board are elected in April of odd-numbered years on four-year, staggered terms. The Village of Western Springs has officially employed a full-time Village Manager since the position was created by ordinance in 1948. The Village Manager is appointed by the President and Board of Trustees. The Manager works under their direction and serves as the chief administrative officer of the Village, providing public availability as well as administrative and financial management. The Manager is responsible for the direct and indirect supervision of all Village personnel. This body of Government will assume the responsibility for the adoption and implementation of this plan. Aside from the Village Manager and staff, the Village President and Board of Trustees are also assisted by the Village's boards and commissions. Boards and commissions are established to give a special review to specific types of issues (e.g. economic development, infrastructure, and appearance) and provide the Village Board with a recommended course of action.

Development Trends: The development of Western Springs has primarily been residential development however the Village's downtown area is a mix of retail, commercial, service and institutional uses. Downtown is the core of the community and serves as a formal and informal gathering place. The Village has a Comprehensive Plan for future development which addresses commercial development in the downtown area.

Changes in Community Priorities: Severe weather and urban flooding have increased in their priority from a Village response and planning perspective.

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 & Requirements					
Building Code	Yes	No	No	Yes	BOCA International Code 1999. 11/26/2001
Zonings	Yes	No	No	No	Western Springs Municipal Code 10-5-1. 10/12/2009
Subdivisions	Yes	No	No	No	Western Springs Municipal Code 10-10-1. 12/14/1992
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Western Springs Municipal Code 10-11-1. 8/11/2008
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act
Growth Management	Yes	No	No	No	Western Springs Municipal Code 10-8-1. 12-14-1992
Site Plan Review	Yes	No	No	No	Western Springs Municipal Code 9-1A-1. 7/1/2004
Public Health and Safety	Yes	No	Yes	No	Cook County Board of Health. Western Springs Municipal Code Title 5. 1997

Environmental Protection	No	No	No	No	
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	Village of Western Springs Comprehensive Land use Plan. 2/24/2003.
Is the plan equipped to provide integration to this mitigation plan?					Yes, Plan includes land use element.
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	Yes	No	Yes	No	Regional storm water impacts are managed by MWRD. The Village lies within the Lower DesPlaines River watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
Capital Improvement Plan	Yes	No	No	No	
What types of capital facilities does the plan address?					Building & Equipment
How often is the plan revised/updated?					Annually
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook County 6b program.

					Western Springs Municipal Code. 6/22/2009
Shoreline Management Plan	No	No	No	No	
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	No	Yes	Yes	Village of Western Springs Emergency Operations Plan. 6/2013
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County EMRS Preparing THIRA
Terrorism Plan	Yes	No	Yes	Yes	Village of Western Springs Emergency Operations Plan. 6/2013
Post-Disaster Recovery Plan	Yes	No	No	No	Village of Western Springs Emergency Operations Plan. 6/2013
Continuity of Operations Plan	Yes	No	No	No	Village of Western Springs Emergency Operations Plan 6/2013
Public Health Plans	yes	No	Yes	Yes	Cook County DPH Village of Western Springs Emergency Operations Plan. 6/2013

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	No
User Fees for Water, Sewer, Gas or Electric Service	Yes (Water, Sewer)
Incur Debt through General Obligation Bonds	Yes (Referendum)
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No

State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	

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/Village Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Community Development/Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Community Development/Village Engineer
Staff with training in benefit/cost analysis	Yes	Finance Department/Director
Surveyors	Yes	Community Development
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Emergency Management/Director
Grant writers	Yes	Fire & EMS/Municipal Services

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	Community Development
Who is your jurisdiction's floodplain administrator? (department/position)	Community Development/ Village Engineer
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date of adoption of your flood damage prevention ordinance?	8/11/2008
When was the most recent Community Assistance Visit or Community Assistance Contact?	9/06/2000
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

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.

- Our staff provide the following services: permit reviews, GIS, inspections, engineering capability.
- My community's Floodplain Administrator is a Certified Floodplain Manager (CFM).
- 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:

10-11-3 Definitions

SUBSTANTIAL DAMAGE: Damage of any origin sustained by a structure whereby the cumulative percentage of damage during a ten (10) year period equals or exceeds fifty percent (50%) of the market value of the structure before the damage occurred regardless of actual repair work performed. Volunteer labor and materials must be included in this determination. The term includes repetitive loss buildings (see definition of repetitive loss).

SUBSTANTIAL IMPROVEMENT: Any reconstruction, rehabilitation, addition, or improvement of a structure taking place subsequent to the adoption hereof in which the cumulative percentage of improvements equals or exceeds fifty percent (50%) of the market value of the structure during a ten (10) year period before the improvement or repair is started.

10-11-5 Duties of the Village Engineer

The Village Engineer shall be responsible for the general administration and enforcement of this chapter, including, but not limited to, the following duties:

A. 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 in a floodplain for which a detailed study has not been conducted and

which drains more than one square mile. Check whether the development is potentially within an extended SFHA (with a drainage area less than 1 square mile), indicating that the development would have adverse impacts regarding storage, conveyance, or inundation which would be the basis for the applicant being required to delineate the floodplain and floodway and be subject to the remaining sections of this chapter.

B. Professional Engineer Review: If the development site is within a floodway or in a floodplain for which a detailed study has not been conducted and which drains more than one square mile, the permit shall be referred to a licensed professional engineer under the employ or contract of the Village for review to ensure that the development meets the requirements of section 10-11-9 or 10-11-10 of this chapter. In the case of an appropriate use, the PE shall state in writing that the development meets the requirements of section 10-11-9 of this chapter.

G. Damage Determinations: Make damage determinations of all damaged buildings in the SFHA after a flood to determine substantially damaged structures, which must comply with section 10-11-3 of this chapter.

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	**Classification**	**Date Classified**
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	10	12/20/2013
Public Protection/ISO	Yes	3	3/1/2013
StormReady	Yes	Gold (countywide)	2014
Tree City USA	Yes	29 years	4/2013

Opportunities to Expand and Improve Capabilities

At this time, the Village of Western Springs has not identified opportunities to expand or improve our current capabilities. Should such opportunities be identified in the future, this Capability Assessment will be updated accordingly.

Known Challenge: The Village of Western Springs is predominantly residential, with a very low sales tax base. Due to the affluence of the population, the town is not eligible for most grant programs and does not have capability or funding mechanisms to provide matching funds. The community is also under 25,000 in population and therefore is a non-home rule community. As such, it cannot implement additional funding taxes or fees.

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 goals and actions of the Hazard Mitigation Plan will be considered in the next capital improvement planning process.
- 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: 1 (1 Single Family)
- 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

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
Flash Flood	-	5/11/2014	-
Severe Winter	-	12/2013 - 3/2014	Snow Removal, Emergency Measures and Water Main Repair
Flood Event	-	11/17/2013	-
Severe Weather/Wind			Winds were estimated to near 70 mph caused extensive tree damage in Western Springs
Flood Event	-	4/18/2013	-
Power Outage	-	11/27/2012	-
Severe Weather	-	7/24/2012	-
Severe Weather	-	7/11/2011	-
Severe Weather	-	6/21/2011	Emergency Measures
Severe Winter	DR-1960 IL	2/1/2011 - 2/3/2011	$45,000 in Snow Removal and Emergency Measures
Severe Weather/Flood	DR-1935	7/24/2010	$9,500 in Emergency Measures and Drain Cleaning - widespread flooding
Severe Weather/Flood	-	6/23/2010	Almost every street in Western Springs had standing water with three to four feet of standing water on Hampton and Hillgrove Avenues. Several motorists were rescued from their cars after the cars were submerged in flood waters. A Western Springs fire truck stalled in flood waters and had to be towed.
Severe Weather	-	6/18/2010	-
Severe Weather	-	6/19/2009	-
Winter Weather		12/8/2008	Low temperatures dropped to 5 below to 10 below zero on the 21st and 22nd, and were in the low single digits on the 23rd, 24th and 25th. 1 person died in Western Springs
Severe Weather	-	6/15/2008	-
Severe Weather/Flood	-	10/2/2006	-
Severe Weather	-	5/10/2003	-

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.

Drought: Village services its own water system with deep aquifer wells and water treatment plant. Water plant has maximum output capacity that can be stressed when drought conditions arise.
Flood: The Village is approximately 40% combined sewers. Several portions of the community south of 47th Street (Springdale, Forest Hills and Ridgewood subdivisions) are susceptible to urban flooding which has resulted in water infiltrating into residential homes on multiple occasions. Flooding included basement and ground floor flooding. Flooding also impacts the south fire station which serves as a channel way for overland flow.
The southwest part of the Village - specifically Ridgewood and Forest Hills residents - is vulnerable to flooding. In 2010, very heavy rain fell across much of north central Cook County producing widespread flooding and flash flooding during the early morning hours of July 24th. Hundreds of streets and thousands of basements were flooded. Numerous homes were surrounded by flood waters with water damage on the first floor. Several hundred vehicles were submerged or floating in flood waters, many were a total loss. Areas that suffered some of the most widespread flooding and extensive damage included Western Springs.
High Winds: Previously, the Village has experienced loss of power due to high winds, exposing key Village operations (that do not have 24/7 generator power) to impacts. In 2013, winds were estimated to near 70 mph caused extensive tree damage in the communities of Western Springs, La Grange, and Riverside. Extensive tree damage was reported along the railroad. A six inch diameter tree was blown down at 55th Street and La Grange Road. A six inch diameter tree limb was blown down on the 2300 block of 1st Avenue. Multiple lanes were blocked.
Snow: The Village has experienced the impacts of snow at the major route to two hospitals. The heavy snow delays emergency vehicles to calls and ambulances to hospitals.
Blizzards: The Village's elderly population would likely be homebound in the event of a blizzard.
Extreme Cold: Similar to the impacts of high winds, previously, the Village has experienced loss of power due to extreme cold, exposing key Village operations (that do not have 24/7 generator power). In 2008, very cold air spread across northern Illinois starting on December 21st and continuing through December 25th. Low temperatures dropped to 5 below to 10 below zero on the 21st and 22nd, and were in the low single digits on the 23rd, 24th and 25th. One person died due to cold exposure in Western Springs.
Ice Storms: See High Winds narrative.
Tornado: Small-tightly built community so tornado would have huge impact on life safety as well as business interruption. The Village is a predominately residential community with small, tightly built single family homes that would be highly impacted by a tornado. Critical Village facilities, such as Public Works, Rec Center and Community Center do not have backup power. Rec Center and Community Center serve as warming and emergency distribution locations for emergency events.
Earthquake: The tightly built nature of the community could yield extensive damage if an earthquake happens. The Village owns and maintains a historic water tower constructed in 1896 that is listed on the national historic register made of brick and stone. Building is approximately 100' and would be susceptible to earthquake damage and could result in a catastrophic collapse as a result of an earthquake.
Severe Winter Weather: The community does experience community power loss as a result of extreme cold, ice, and high winds. The community is predominately overhead power lines.

Indicator	Number	Percent

Families in poverty	141	2.2%
People with disabilities	2,096	9.4%
People over 65 years	4,647	20.4%
People under 5 years	1,671	7.3%
People of color	2,358	10.4%
Black	279	1.2%
Native American	63	0.3%
Hispanic	1,202	5.3%
Difficulty with English	155	0.7%
Households with no car	294	3.6%
Mobile homes	0	0%

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

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

Jurisdiction-Specific Climate Change Vulnerability and Impacts

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

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

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Increased
Earthquake	Unknown
Flood (Riverine, Urban, Shoreline)	Increased
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Wings)	Increased
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Increased
Tornado	Unknown
Wildfire (Wildfire Smoke)	Not Applicable

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Increase

Earthquake	Unknown
Flood (Riverine, Urban, Shoreline)	Increase
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Wings)	Increase
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Increase
Tornado	Unknown
Wildfire (Wildfire Smoke)	Not Applicable

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
Current Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Unknown
Earthquake	Unknown
Flood (Riverine, Urban, Shoreline)	Increased
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Wings)	Remained the Same
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Remained the Same
Tornado	Remained the Same
Wildfire (Wildfire Smoke)	Not Applicable

Hazard	Vulnerability
Future Vulnerability	
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 Wings)	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 anticipates that the following future major assets may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan:

- Possible new Village Hall and Public Safety buildings to be constructed on west end of community near I-294 could be impacted due to relocation of facilities and proximity to major transportation networks.

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**
1	Severe Weather
2	Severe Winter
3	Tornado
4	Earthquake
5	Flood
6	Drought
7	Dam Failure

New Mitigation Actions

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

Action W-2.12

Mitigation Action #12: Storm Outfall Rehabilitation					
Lead Agency/Department Organization: Village Administration	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Medium	**Potential Funding Source:** General Fund Hazard Mitigation Grant Program (HMGP) Flood Mitigation Assistance (FMA) Program Community Development Block Grant (CDBG) FEMA Public Assistance (PA)	**Estimated Projected Completion Date:** Long-term	**Hazard(s) Mitigated:** Flood (Riverine, Urban, Coastal/Shoreline)
Year Initiated		2024			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		1,2,3,5			
Applicable Objective		4,6,9			
Cost Analysis (Low, Medium, High)		Medium			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			

Action/Implementation Plan and Project Description:	Storm Outfall Rehabilitation
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: **N** = New; **I** = In Progress Toward Completion; **O** = Ongoing Indefinitely; **C** = Project Completed; **R** = Want Removed from Annex; **X** = No Action Taken/Delayed	N

Action W-2.13

Mitigation Action #13: Monitoring water supply and leaks in distribution system.					
Lead Agency/Department Organization: Municipal Services	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund Water Fund	**Estimated Projected Completion Date:** Ongoing	**Hazard(s) Mitigated:** Drought
Year Initiated		2024			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		1,3,4,6			
Applicable Objective		1,2,3			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Monitoring water supply and leaks in distribution system.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: **N** = New; **I** = In Progress Toward Completion; **O** = Ongoing Indefinitely; **C** = Project Completed;		N			

R = Want Removed from Annex; **X** = No Action Taken/Delayed	

Action W-2.14

Mitigation Action #14: Springdale Detention Basin					
Lead Agency/Department Organization: Municipal Services Department	**Supporting Agencies/ Organizations:** Park District, MWRD	**Estimated Cost:** High	**Potential Funding Source:** General Fund MWRD Grant Funding	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** Flood (Riverine, Urban, Coastal/Shoreline)
Year Initiated		2025			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		2,3			
Applicable Objective		2			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Springdale Detention Basin (Ongoing) Est $5.5M Construction of new storm sewer separation project in the Springdale subdivision to alleviate urban flooding. Includes construction of new detention basin in local park in cooperation with Park District and installation of new storm sewer through portions of the subdivision.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: **N** = New; **I** = In Progress Toward Completion;		N			

O = Ongoing Indefinitely; **C** = Project Completed; **R** = Want Removed from Annex; **X** = No Action Taken/Delayed	

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 W-2.4

Mitigation Action #4: Snow Removal Equipment Enhancement					
Lead Agency/Department Organization: Public Works	**Supporting Agencies/ Organizations:**	**Estimated Cost:** $10,000	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Annual, Long-term	**Hazard(s) Mitigated:** Winter Weather
Year Initiated		2014			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		1,2,3			
Applicable Objective		1,3			
Cost Analysis (Low, Medium, High)		Medium			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Provide a snow removal plan with includes acquisition of additional equipment to relocate snow piles from the business district.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority		O 2020: Ongoing with no substantial changes at this time.			

Completion status legend: **N** = New; **I** = In Progress Toward Completion; **O** = Ongoing Indefinitely; **C** = Project Completed; **R** = Want Removed from Annex; **X** = No Action Taken/Delayed	2024: Village tentatively has purchase of new equipment (End Loader) and (Backhoe) for CBD removal planned for 2024 and 2025.

Action W-2.6

Mitigation Action #6: Emergency Notification					
Lead Agency/Department Organization: Law Enforcement	**Supporting Agencies/ Organizations:**	**Estimated Cost:** $2,000, Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Annual, Short-term	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		5,6			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Maintain Code Red Emergency public notification systems for advanced warning and time sensitive notification of all Village residents of emergency measures. - SEE Project Status for change to Rave911			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority **Completion status legend:** **N** = New; **I** = In Progress Toward Completion; **O** = Ongoing Indefinitely; **C** = Project Completed; **R** = Want Removed from Annex; **X** = No Action Taken/Delayed		O 2024: Village has migrated from "CodeRed" system to "Rave911" mass notification system.			

Action W-2.7

Mitigation Action #7: Village Water Management Plans					
Lead Agency/Department Organization: Municipal Services Department	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Medium	**Potential Funding Source:** HMGP, BRIC, FMA	**Estimated Projected Completion Date:** Long-term	**Hazard(s) Mitigated:** Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		1,2,3,5			
Applicable Objective		3, 4, 12, 13			
Cost Analysis (Low, Medium, High)		Medium			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Regular updates and maintenance has been completed and will continue to be completed. A new plan was created for Ridgewood (subdivision) but has not been tested yet.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority **Completion status legend:** **N** = New; **I** = In Progress Toward Completion; **O** = Ongoing Indefinitely; **C** = Project Completed; **R** = Want Removed from Annex; **X** = No Action Taken/Delayed		O 2024: Additional updates and revisions to response plan, including review and analysis of emergency water inter-connects anticipated for 2024. Village is targeted to complete hydraulic model and assessment of distribution system and emergency water interconnects in 2024. ($55,000) Targeted to begin assessment of water production system, including water treatment plant, wells in 2024. (Est cost $75,000) 2023: Completion of Capital Infrastructure Plan anticipated for Q1 2024, which included identification of replacement and priorioty for capital replacement of various infrastructure, including water mains, hydrants, and valves. 2021: The emergency response plan has been completed and is anticipating additional revision in 2022.			

	2020:The Village is currently completing an emergency response and critical facilities plan for its potable water infrastructure. The plan is anticipated to be completed in the first half of 2021.

Action W-2.8

Mitigation Action #8: Village Emergency Operations Plans					
Lead Agency/Department Organization: Fire and Emergency Services	**Supporting Agencies/ Organizations:**	**Estimated Cost:** High	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		1,2,3,5			
Applicable Objective		1,4			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		All Village Emergency Plans have been reviewed and updated but will be continually updated.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: **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 W-2.9

Mitigation Action #9: Sewer Maintenance and Storm Preparations					
Lead Agency/Department Organization: Municipal Services Department	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** BRIC, HMGP, FMA	**Estimated Projected Completion Date:** Long-term	**Hazard(s) Mitigated:** Flooding, Severe Weather
Year Initiated		2014			
Applicable Jurisdiction		Village of Western Springs			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		All			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Clear storm drains and culverts on a regular basis and prior to predicted events to help control flood waters.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority **Completion status legend:** **N** = New; **I** = In Progress Toward Completion; **O** = Ongoing Indefinitely; **C** = Project Completed; **R** = Want Removed from Annex; **X** = No Action Taken/Delayed		O 2023: Design for storm water improvements for locations in in the Springdale Subdivision and Ridgewood subdivisions ongoing. Village completed installation of 1000 feet of 66" storm sewer in the Old Town South subdivision which included the separation of portions of the combined sewer system and allows for future separation of the combined sewer system in this subdivision. 2022: The Village is beginning design for stormwater improvements at various locations within the community, however, construction funding is currently unavailable. The enhancement project with MWRD funds identified in 2020 is anticipated to begin construction in 2022. A new storm sewer outfall located near Spring Rock Park for portions of Basin 3 of the combined sewer areas is anticipated to go online in early 2022. 2020: The Village has completed three stormwater studies for portions of the community negatively affected by stormwater. Costs at this time require			

	significant capital improvement investment, and the Village is currently investigating funding avenues. The Village has received grant funds from the Metropolitan Water Reclamation District (MWRD) for combined sewer separation and enhancements for a project in the Village scheduled for 2021.

Completed Actions

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

Completed Action Items
Tornado and Severe Weather Siren
Public Education
Emergency Power
Fire and Building Code
Provide emergency generators for the Water Plant and Headquarters Fire Station
Construct Old Town South Combined Sewer Separation

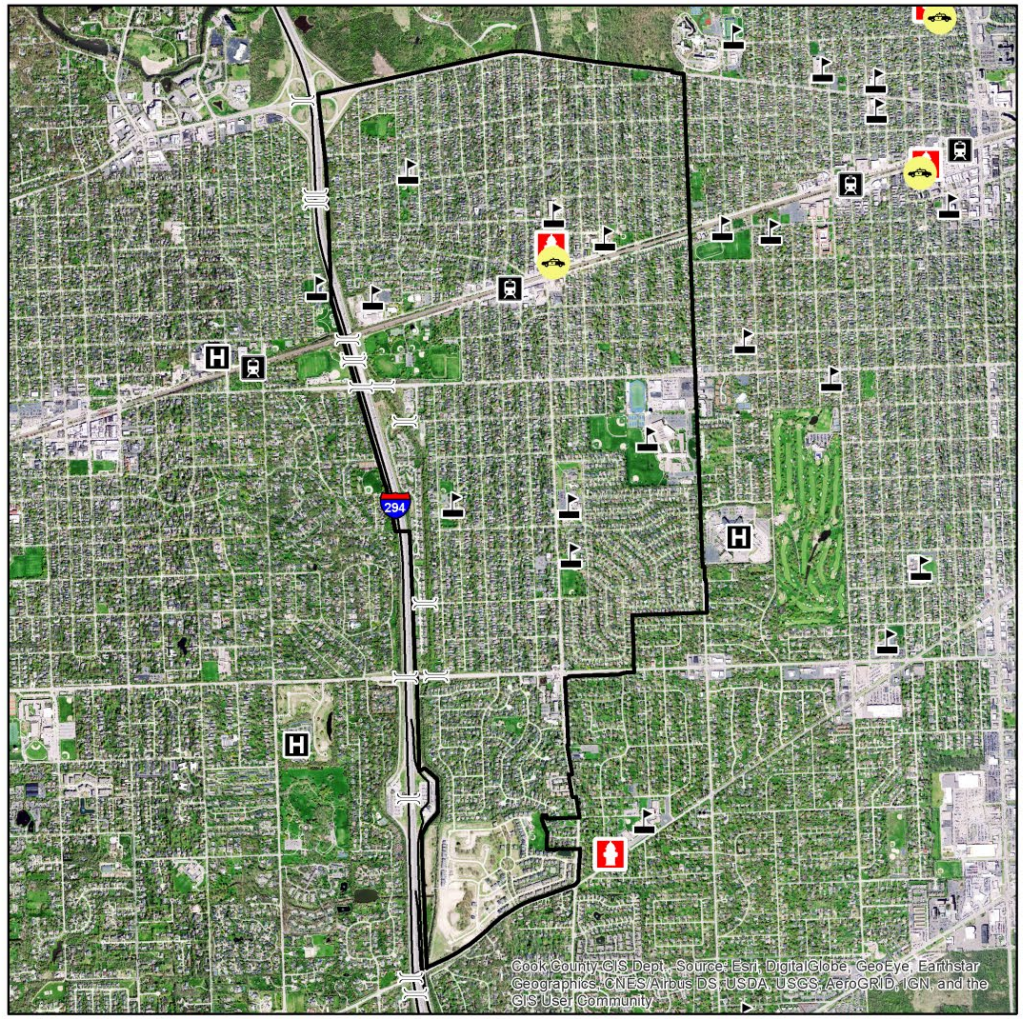
Future Needs to Better Understand Risk/Vulnerability

No needs have been identified at this time.

Additional Comments

No additional comments at this time.

Hazard Mapping



VILLAGE OF WESTERN SPRINGS

CRITICAL INFRASTRUCTURE

- Oil Facilities
- Transit Centers
- Military Facilities
- Police Stations
- Fire Stations
- Hazardous Waste
- Airports
- Hospitals
- Highway Bridges
- Warming Centers
- Cooling Centers
- Schools
- Railroad Stations

Base Map Data Sources:
Cook County, ESRI

COOK COUNTY EMRS
EMERGENCY MANAGEMENT AND REGIONAL SECURITY

N W E S

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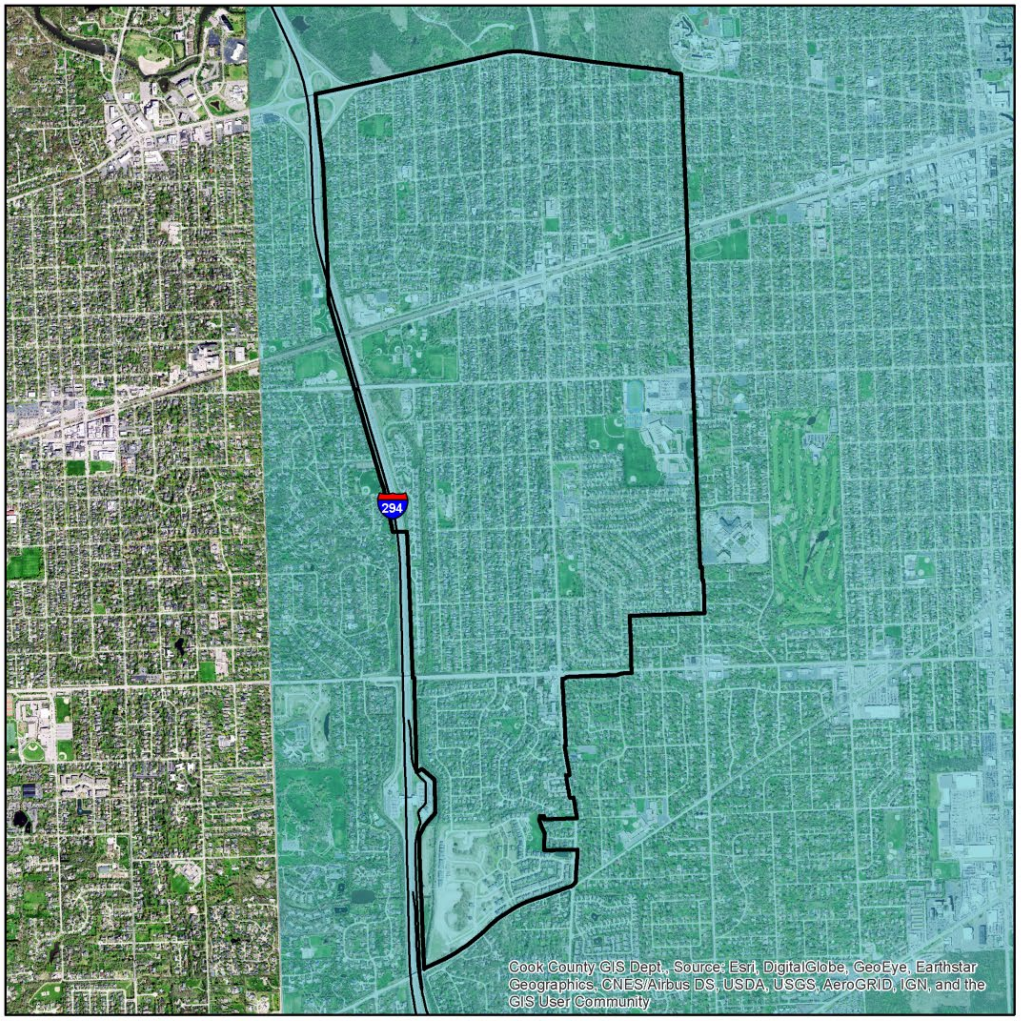

VILLAGE OF WESTERN SPRINGS

PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

Mercalli Scale, Potential Shaking

II-III Weak

Data provided by the USGS Earthquake Hazards Program and Cook County.

Probabilistic seismic-hazard maps were prepared for the conterminous United States for 2014 portraying peak horizontal acceleration and horizontal spectral response acceleration for 0.2- and 1.0-second periods with probabilities of exceedance of 10 percent in 50 years and 2 percent in 50 years. All of the maps were prepared by combining the hazard derived from spatially smoothed historical seismicity with the hazard from fault-specific sources. The acceleration values contoured are the random horizontal component. The reference site condition is firm rock, defined as having an average shear-wave velocity of 760 m/s in the top 30 meters corresponding to the boundary between NEHRP (National Earthquake Hazards Reduction program) site classes B and C.

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COOK COUNTY EMRS
EMERGENCY MANAGEMENT AND REGIONAL SECURITY

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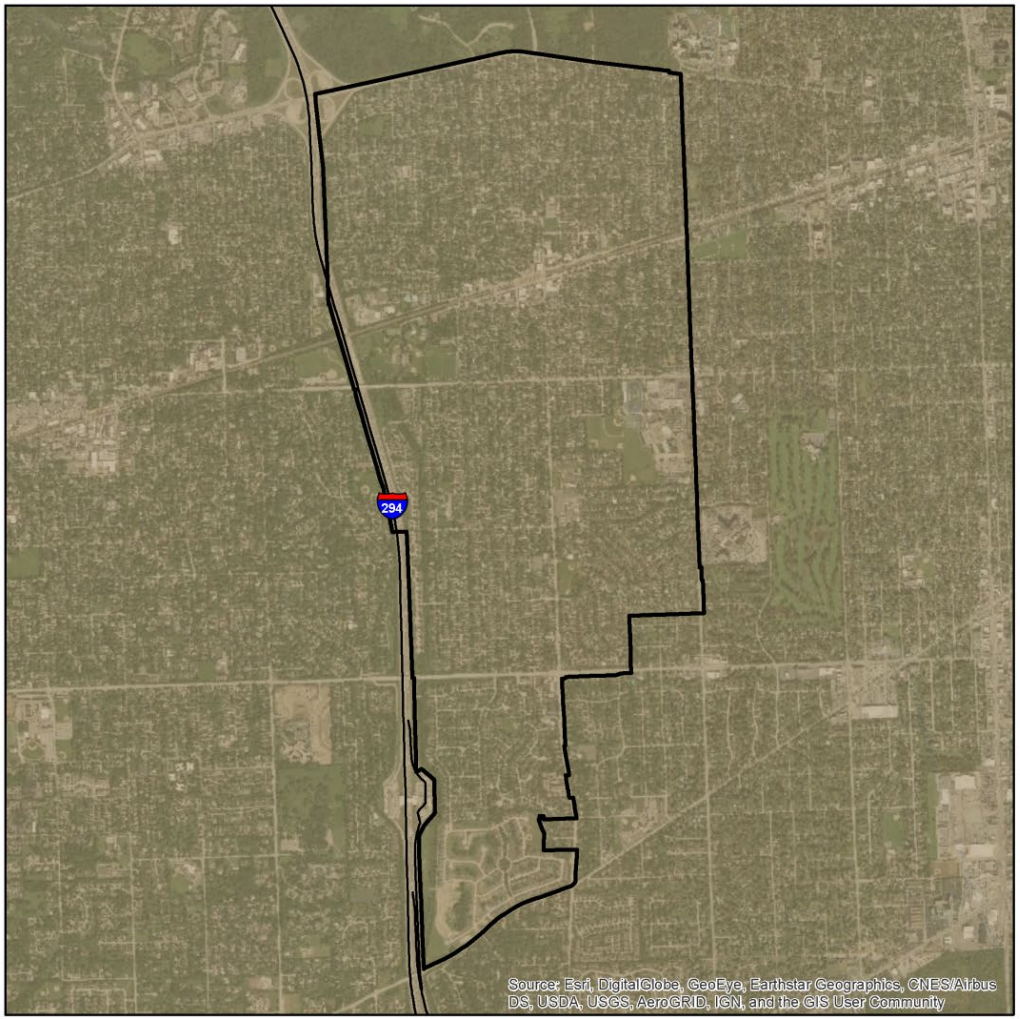

VILLAGE OF WESTERN SPRINGS

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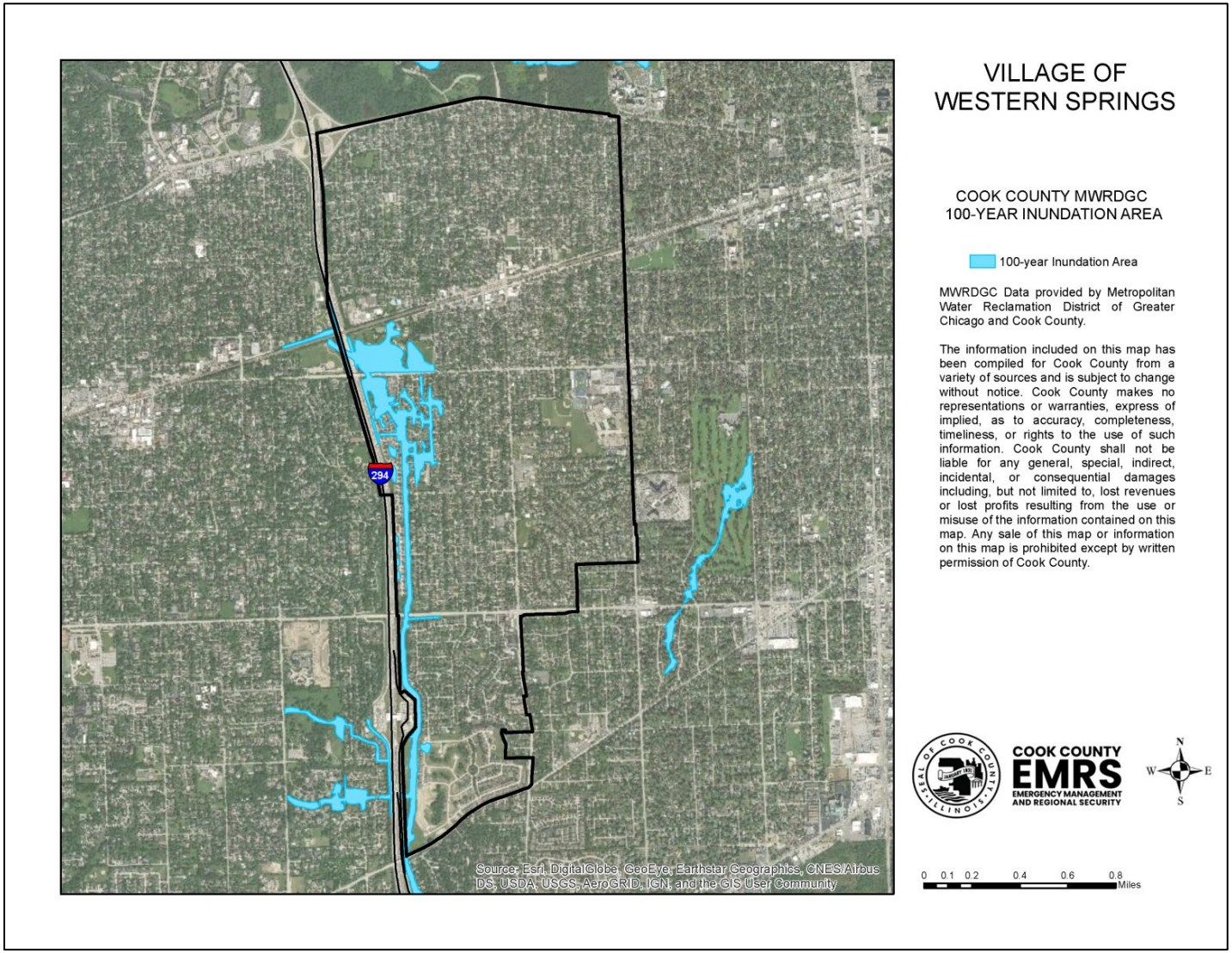
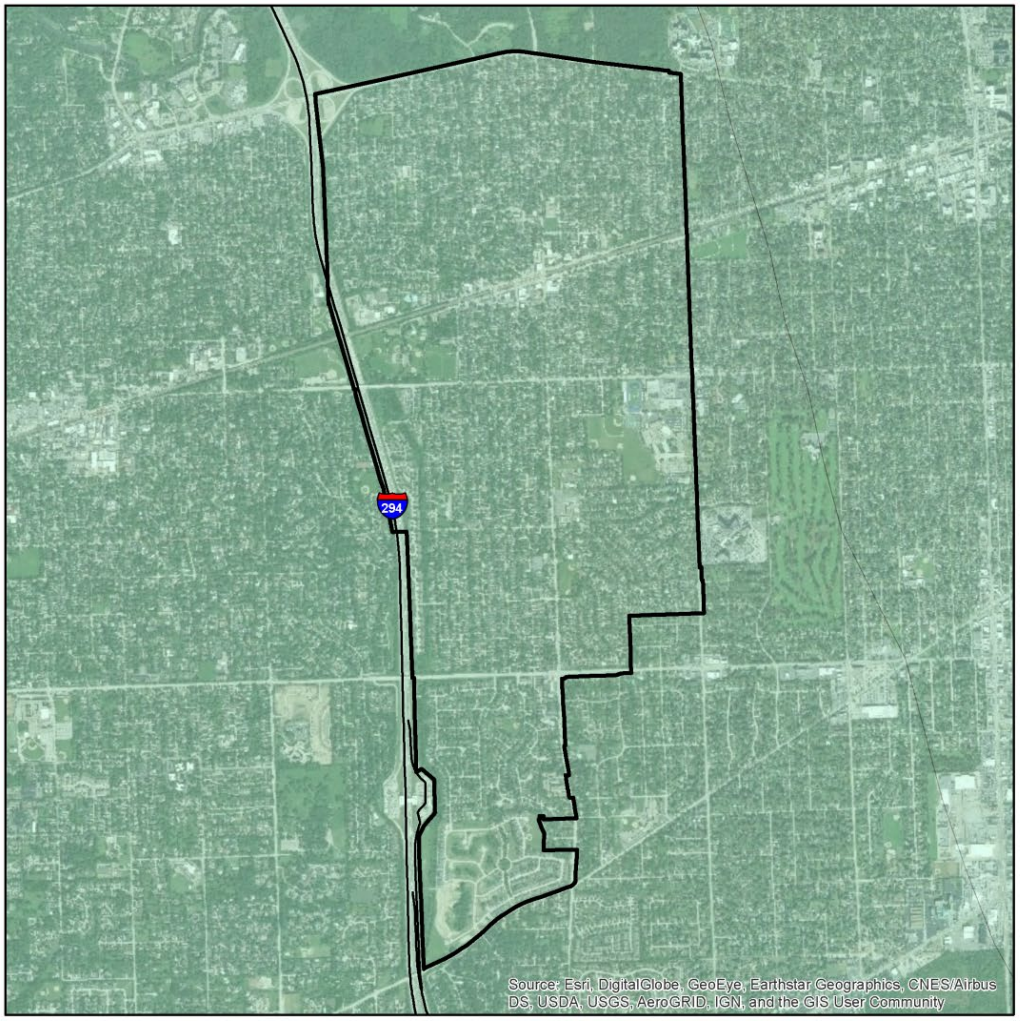
DISCLAIMER: The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from http://www.fema.gov.





VILLAGE OF WESTERN SPRINGS

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

- high
- low
- very low

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

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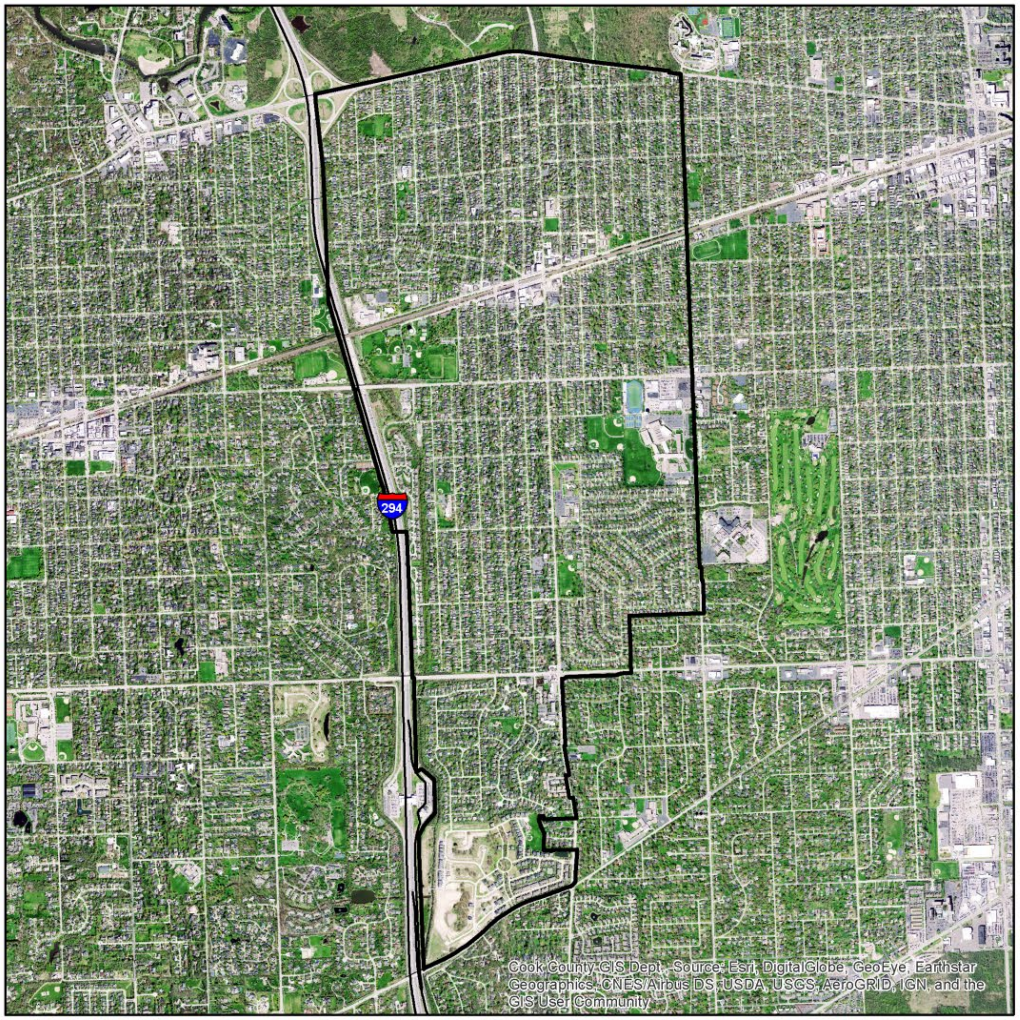

VILLAGE OF WESTERN SPRINGS

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

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