South Holland

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: 1894

Current Population: The 2020 U.S. Census population was 21,465. The 2022 U.S. Census estimate indicated the population was 20,685.

Population Growth: The overall population has decreased by 3.80% between 2018 and 2022.

Location and Description: South Holland is a south suburb of Chicago in Cook County, approximately 19 miles south of downtown Chicago and 4 miles from the Illinois/Indiana border to the east. Both Interstate I-94 and I-80 have interchanges in South Holland. Suburbs adjacent to South Holland include: Dolton to the north, Thornton to the south, Harvey to the west, and Calumet City, and Hammond, IN to the east. According to the U.S. Census Bureau, South Holland has a total land area of 7.28 square miles. South Holland is an anomaly in Chicago Southland because of its laws. All businesses (except travel-related establishments such as hotels, restaurants, and gas stations) are closed on Sunday. South Holland is a "dry" municipality; that is, no alcohol is sold anywhere within the village limits. Additionally, the sale or rental of pornographic material is prohibited in South Holland. The village's franchise agreements with cable television providers restrict adult-oriented programming. These laws are a remnant of the village's religious roots as a settlement of conservative Dutch Reformed immigrants. Even today, South Holland's motto is "A Community of Churches".

Brief History: In 1847, Hendrik de Jong purchased 300 acres of land in Thornton Township, with his wife Geertje (de Vries) and 12 children and established the area as De Laage Prairie. Antje Paarlberg also settled here later in the year. In 1870, the U.S. Government recognized the town and its name was changed to South Holland. In 1894, South Holland was incorporated into a Village under the statutes of the State of Illinois. South Holland was predominately an agricultural community once being named as the "Onion Set Capital of the World". The end of WWII ended that era and today it is a thriving community with retail and industrial businesses. In October 2007, Forbes.com declared South Holland to be the "Most Livable Metro-Area suburb"of the Chicago metropolitan area.

Climate: The climate for the Village of South Holland is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and often humid summers; pleasant autumns; and cold winters. Annual precipitation is average and reaches its lowest points in the months of January (2.05" / 11.6" of snow) and February (1.93" / 9.6" of snow), and peaks in the months of May (4.12") and June (4.06"). Annual temperature averages are lowest in January (16.5 F degrees) and are highest in July (84.1 F degrees).

Governing Body Format: The Village of South Holland is Home-Rule and operates under the Village President/Trustee form of government. The legislative body consists of the Village President, Board of six Trustees and Village Administrator. The Village President and Board of Trustees serve a term of four years. This body of Government will assume the responsibility for the adoption and implementation of this plan. The Village Administrator is responsible for day-to-day operation of the Village and oversees 9 departments including the Village Administrators Office, Economic Development, Recreational Services, Finance Department, Building Department, Fire Department, Police Department, ESDA and Public Works Department.

Development Trends: Population growth has been flat for the past few years due to the downturn in the economy. However this has not prevented the business climate from steady growth. Through the establishment of 2 TIF districts and special zoning districts the village has attracted several new prominent retail businesses with more to come in the near future. Our "Vision 2022" is bringing Responsive and Progressive Leadership to future planning. It is anticipated that our Town Center and Interstate Zoning districts will boost the business and industrial growth by twenty to thirty percent creating numerous of new job opportunities. An update in 2017 indicated that TIF programs have helped South Holland retain and attract new business by redeveloping outdated buildings, upgrading infrastructure and paying for other public improvement projects that business owners look for when deciding to invest in a community.

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**
Codes, Ordinances & Requirements					

Building Code	Yes	No	Yes	Yes	South Holland Municipal Code, Ord. Sec. 6-16 Adoption of Building Code Ordinance Number 2018-16
Zonings	Yes	No	Yes	Yes	(65 ILCS 5/) Illinois Municipal Code South Holland Municipal Code. Ord. Appendix A "Zoning Ordinance" Original Ordinance No. 95-2, January 16, 1995. Last updated Ord. No. 2012-23
Subdivisions	Yes	No	Yes	No	South Holland Municipal Code. Ord. 95-24
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. South Holland Municipal Code. Ord. 2010-5
Post Disaster Recovery	Yes	No	No	No	Ch. 14 Article II & III
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act. State Law
Growth Management	No	No	No	No	N/A
Site Plan Review	Yes	No	No	No	South Holland Municipal Code. Ord. 95-24 adopted 1995
Public Health and Safety	Yes	No	Yes		South Holland Municipal Code. 18 2018-16

Environmental Protection	Yes	No	Yes	Yes	South Holland Municipal Code. 18 2018-16
Planning Documents					
General or Comprehensive Plan	No	No	No	No	
Is the plan equipped to provide integration to this mitigation plan?					No
Floodplain or Basin Plan	Yes	No	Yes	Yes	Ord 2008-6 & 2008-13
Stormwater Plan	Yes	No	Yes	No	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 Ord 2001-14 & 2008-6
Capital Improvement Plan	Yes	No	No	No	Plan is updated annually or as funds become available. It includes buildings, water main, sewers, roads, bridges, and vehicles.
What types of capital facilities does the plan address?					Municipal
How often is the plan revised/updated?					Yes
Habitat Conservation Plan	Yes	No	No	No	South Holland Municipal Code. Ord. 2012-10 adopted 2012
Economic Development Plan	Yes	No	No	Yes	South Holland Municipal Code. Ord. 2012-10 adopted 2012
Shoreline Management Plan	No	No	No	No	N/A
Response/Recovery Planning					
Comprehensive Emergency	No	No	Yes	Yes	Cook County EMRS

Management Plan					
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County EMRS Preparing THIRA
Terrorism Plan	No	No	Yes	No	Cook County EMRS
Post-Disaster Recovery Plan	Yes	No	No	No	Emergency Oper. Plan
Continuity of Operations Plan	Yes	No	Yes	No	Emergency Oper. Plan
Public Health Plans	No	No	Yes	No	Cook County DPH

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

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	**Available?**	**Department/Agency/Position**
Planners or engineers with knowledge of land development and land management practices	Yes	Director Planning, Development & Code Enforcement
Engineers or professionals trained in building or infrastructure construction practices	Yes	Robinson Engineering, Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Robinson Engineering
Staff with training in benefit/cost analysis	Yes	John Hilsen, Robinson Engineering
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	
Emergency manager	Yes	Patricia Mahon, Deputy Village Administrator
Grant writers	Yes	Julia Heisman

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	Community Development Department
Who is your jurisdiction's floodplain administrator? (department/position)	Brian Smith, Manager of Bldg Services Ord. # 92-6
Are any certified floodplain managers on staff in your jurisdiction?	Yes, Brian Smith
What is the date of adoption of your flood damage prevention ordinance?	Ord. #92-6, March 17, 1992
When was the most recent Community Assistance Visit or Community Assistance Contact?	2022
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?	Yes, Class 5

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's Floodplain Administrator is a Certified Floodplain Manager (CFM).
- My community teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars.
- Our community enforces local floodplain regulations and monitors compliance.
- Our floodplain development regulations meet or exceed Federal Emergency Management Agency (FEMA) or State minimum requirements.

Our community maintains a CRS of 5 with FEMA.

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. 14-22 Definitions

Substantial damage means damage of any origin sustained by a structure whereby the cumulative percentage of damage during the life of the building equals or exceeds fifty (50) percent 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 *Repetitive loss*.

Substantial improvement means any reconstruction, rehabilitation, addition or improvement of a structure taking place during the life of the building in which the cumulative percentage of improvements equals or exceeds fifty (50) percent of the market value of the structure before the improvement or repair is started, or increases the floor area by more than twenty (20) percent.

(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 to 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. 14-23 Duties of the Director of Planning, Development, and Code Enforcement

The director of planning, development and code enforcement shall be responsible for the general administration and enforcement of this article which shall include the following:

(1) *Determining the floodplain designation.*

a. Check all new development sites to determine whether they are in a floodplain using criteria listed in section 14-24, Base *flood* elevations.

b. If they are in a floodplain, 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 (1) square mile.

1. If the site is within a *flood* fringe, the director of planning, development and code enforcement shall require that the minimum requirements of section 14-25 be met.

2. If the site if within a floodway, the director of planning, development and code enforcement shall require that the minimum requirements of section 14-26 be met.

3. If the site is located within a floodplain for which no detailed study has been completed and approved, the director of planning, development and code enforcement shall require that the minimum requirements of section 14-27 be met.

(Ord. No. 2020-12, 2-18-20)

Sec. 14-23.1 Professional Engineer Review

(a) 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 P.E. under the employ or contract of the village for review to ensure that the development meets section 14-26 and section 14-27.

(b) In the case of an appropriate use, the P.E. shall state in writing that the development meets the requirements of section 14-26.

(Ord. No. 2020-12, 2-18-20)

Sec. 14-23.6 Substantial Damage and Substantial Improvement Determinations

Establish, in coordination with the director of planning, development and code enforcement procedures for administering and documenting determinations, as outlined below, of substantial improvement and substantial damage made pursuant to section 14-28.

(1) Determine the market value or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work. In the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made.

(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure.

(3) Determine and document whether the proposed work constitutes substantial improvement or substantial damage.

(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the Village of South Holland, Cook County, Illinois and this article is required.

(Ord. No. 2020-12, 2-18-20)

Sec. 14-28.0 Permitting Requirements Applicable to all Floodplain Areas

In addition to the requirements found in sections 14-25, 14-26 and 14-27 for development in flood fringes, designated floodways, and floodplains where no floodways have been identified, the following requirements shall be met.

Sec. 14-28.3 Protecting Buildings

a) In addition to the damage prevention requirements in section 14-25.1 and section 14-26.2 of this article, all buildings located within a floodplain, shall be protected from flood damage below the flood protection elevation. This building protection criteria applies to the following situations:

(1) Construction or placement of a new building or alteration or addition to an existing building valued at more than one thousand dollars ($1,000.00) or seventy (70) square feet.

(2) Substantial improvements or structural alterations made to an existing building that increase the floor area by more than twenty percent (20%) or equal or exceed the market value by fifty (50) percent. Alteration shall be figured cumulatively during the life of the building. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section.

(3) Repairs made to a substantially damaged building. These repairs shall be figured cumulatively during the life of the building. If substantially damaged, the entire structure must meet the flood protection standards of this section.

(4) When installing a new manufactured home on a new site or when a manufactured home is returned to the site it lawfully occupied before it was removed to avoid *flood* damage, the one (1) foot building protection requirements apply.

(5) Installing a travel trailer or recreational vehicle on a site for more than one hundred eighty (180) days per year; and

(6) Repetitive loss to an existing building according to the definition in section 14-22, Definitions, "Repetitive loss," of this article.

(b) Residential or non-residential buildings can meet the building protection requirements by one (1) of the following methods:

(1) The building may be constructed on permanent land fill in accordance with the following:

a. The lowest floor (including basement) shall be at or above the *flood* protection elevation.

b. The fill shall be placed in layers no greater than six (6) inches before compaction and should extend at least ten (10) feet beyond the foundation before sloping below the *flood* protection elevation.

c. The top of the fill shall be above the *flood* protection elevation. However, the ten-foot minimum may be waived if a structural engineer certifies an alternative method to protect the building from damages due to hydrostatic pressures.

d. The fill shall be protected against erosion and scour during *flooding* by vegetative cover, riprap, or other structural measure.

e. The fill shall be composed of rock or soil and not include debris or refuse material.

f. The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties and, when necessary, include stormwater management techniques such as swales or basins.

(2) The building may be elevated in accordance with the following:

a. The building or improvements shall be elevated on stilts, piles, walls, crawlspace, or other foundation that is permanently open to *flood* waters.

b. If walls are used, all enclosed areas below the *flood* protection elevation shall address hydrostatic pressures by allowing the automatic entry and exit of *flood* waters. Designs must either be certified by a licensed professional engineer or by having a minimum of one (1) permanent opening on each wall no more than one (1) foot above grade with a minimum of two (2) openings. The openings shall provide a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to *flooding* below the base *flood* elevation.

c. The lowest floor and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the *flood* protection elevation.

d. The foundation and supporting members shall be anchored, designed and certified so as to minimize exposure to hydrodynamic forces such as current, waves, ice and floating debris.

e. All structural components below the *flood* protection elevation shall be constructed of materials resistant to *flood* damage.

f. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the *flood* protection elevation provided they are waterproofed.

g. The area below the *flood* protection elevation shall be used solely for parking or building access and not later modified or occupied as habitable space.

h. In lieu of the above criteria, the design methods to comply with these requirements may be certified by a licensed professional engineer or architect.

(h) Construction of new or substantially imposed critical facilities shall be located outside the limits of the floodplain. Construction of new critical facilities shall be permissible within the floodplain if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor (including basement) elevated or structurally dry floodproofed to the five hundred-year flood frequency elevation or three (3) feet above the level of the one hundred-year flood frequency elevation whichever is greater. Floodproofing and sealing measures must be taken

to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities.

(Ord. No. 2020-12, 2-18-20; Ord. No. 2022-7, § 1, 2-22-22)

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	**Classification**	**Date Classified**
Community Rating System	Yes	5	2022
Building Code Effectiveness Grading Schedule	Yes	3	2020
Public Protection/ISO	Yes	3	2022
StormReady	Yes	Gold (countywide)	2014
Tree City USA	Yes	N/A	2010 thru 2023

Opportunities to Expand and Improve Capabilities

Opportunities to expand and improve capabilities include:

- Continuing to improve building codes and ordinances as needed.
- Continue to expand funding through grants and funding of mitigation projects

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 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: 22 (21 Single Family, 1 Other Nonresidential)
- Number of FEMA-Identified Severe Repetitive Loss Properties: 1 (1 Single Family)
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 1

Federal Disasters Declared

Disaster Declaration Number	Date Declared	Event
DR-227	4/25/1967	Tornado
DR-351	9/4/1972	Flood
DR-373	4/26/1973	Flood
DR-509	6/18/1976	Severe Storm(s)
DR-643	6/30/1981	Severe Storm(s)
DR-776	10/7/1986	Flood
DR-798	8/21/1987	Flood
DR-997	7/9/1993	Flood
DR-1129	7/25/1996	Severe Storm(s)
DR-1188	9/17/1997	Severe Storm(s)
DR-1729	9/25/2007	Severe Storm(s)
DR-1800	10/3/2008	Severe Storm(s)
DR-1935	8/19/2010	Severe Storm(s)
DR-1960	3/17/2011	Snow
EM-3068	1/16/1979	Snow
EM-3134	1/8/1999	Snow
EM-3161	1/17/2001	Snow
EM-3230	9/7/2005	Hurricane – Katrina Evacuation
EM-3435	3/13/2020	Biological
DR-4116	5/10/2013	Flood
DR-4489	3/26/2020	Biological

DR-4728	8/15/2023	Severe Storm(s)
DR-4749	11/20/2023	Flood

State Disaster Declarations

Date Declared	Event
7/26/2010	Severe Storms, High Winds, Torrential Rain
1/31/2011	Winter Weather
4/25/2011 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	-	7/13/2015	-
Severe Weather	-	6/30/2014	-
Severe Storms	DR-4116	4/26/2013	-
Severe Winter Storm	DR-1960	3/17/2011	-
Severe Storms/Flooding	DR-1935	7/19/2010	-
Severe Storms/Flooding	DR-1800	9/13/2008	-
Severe Storms/Flooding	DR-1729	8/20/2007	-
Severe Winter Storm	EM-3136	12/11/2000	-
Snow Storm	EM-3134	1/1/1999	-
Flooding	DR-1188	8/16/1997	-
Flooding	DR-1129	7/17/1996	-
Flooding/Storms	DR-997	4/13/1993	-
Severe Storms/Flooding	DR-798	8/13/1987	-
Severe Storms/Flooding	DR-776	9/21/1986	-

Severe Storms/Flooding	DR-643	6/30/1981	-
Blizzards/Snowstorms	EM-3068	1/16/1979	-
Severe Storms/Flooding	DR-509	6/18/1976	-
Severe Storms/Flooding	DR-373	4/26/1973	-
Severe Storms/Flooding	DR-351	9/4/1972	-

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: Overbank flooding properties adjacent to the Little Calumet River and Thorn Creek are subject to flooding- in 2008 record flooding occurred along the Little Calumet River and its tributaries in northeast Illinois and northwest Indiana. Also, the combined sewer is in the Village's older reserve stations.

Additional areas vulnerable to flooding include;

- 157th and Woodlawn West - 6 houses still receive severe flooding during excessive rain events.
- 170th and Cottage excessive flooding due to storm water drainage.
- Overpass flooring on 162nd and Wausau Ave.
- 173rd and Dodson Ave. Over Bank Flooding
- Gowens Park and Little Calumet Park Over bank flooding into the Pacesetter Sub-Division.

Lightning: A wide range of the Town is vulnerable to the impacts of lightning.

Hail: A wide range of the Town is vulnerable to the impacts of hail. A weak surface trough dropped across northern Illinois during the evening of June 28th. Triple digit heat led to extreme instability over the area, and explosive growth of thunderstorms occurred as they moved across the Chicago Metro area dropping large hail.

High Wind: A wide range of the Town is vulnerable to the impacts of high wind. The Village has also experienced severe straight-line winds. Strong north winds blew down the entire fetch of Lake Michigan causing high waves and damaging winds along the south shore of the lake. The high winds also blew down tree limbs, power lines and signs.

Snow: The whole Village, including I-80, I-294, I-394, and I-94, is subject to the impacts of snow as well as the potential for stranded motorists. A synoptic system brought 2 to 5 inches of snow across portions of northern Illinois, however semi-organized lake effect snow bands resulted in snow totals reaching 6 to 8 inches across portions of the Chicago metro area. Storm total snow report were 7.0 inches in South Holland.

Blizzards: The whole Village, including I-80, I-294, I-394, and I-94, is subject to the impacts of snow as well as the potential for stranded motorists.

Extreme Cold: The whole Village is vulnerable to the impacts of extreme cold.

Ice Storms: The whole Village is vulnerable to the impacts of ice storms.

Tornado: The whole Village is vulnerable to the impacts of tornadoes.

Winter Weather: Freezing drizzle developed during the early morning of December 29th and continued through late morning. A light glaze of ice accumulated on many roads causing numerous accidents and spin outs. One man was killed after exiting his vehicle which had spun out and being struck another vehicle near South Holland.

Indicator	Number	Percent
Families in poverty	1,024	10.5%
People with disabilities	5,409	13.6%
People over 65 years	7,055	17.5%
People under 5 years	1,697	4.2%
People of color	35,053	86.8%
Black	29,200	72.3%
Native American	6	0%
Hispanic	5,286	13.1%
Difficulty with English	1,095	2.8%
Households with no car	1,261	8.4%
Mobile homes	141	0.9%

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	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Decreased
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Wings)	Increased
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
Future Vulnerability	

Dam and Levee Failure	Not Applicable
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
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)	No Change is Anticipated
Tornado	Increase
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
Current Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Remained the Same
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)	Remained the Same

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
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 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.

TABLE: HAZARD RISK RANKING	
Rank	**Hazard Type**
1	Severe Weather
2	Flood
3	Tornado
4	Severe Winter Weather
5	Drought
6	Earthquake
7	Dam Failure

New Mitigation Actions

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

Action S7.21

Mitigation Action #21: Implement a study to separate storm water from sewer system to help diminish basement flooring.					
Lead Agency/Department Organization: Public Works	**Supporting Agencies/ Organizations:** Village Engineer	**Estimated Cost:** High	**Potential Funding Source:** Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) Flood Mitigation Assistance (FMA) Program General Fund	**Estimated Projected Completion Date:** Long-Term	**Hazard(s) Mitigated:** Flood (Riverine, Urban, Coastal/Shoreline)
Year Initiated		2025			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,4,5,6			
Applicable Objective		4,6,9,10,12,13			
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:		Implement a study to separate storm water from sewer system to help diminish basement flooring.			
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** =		N			

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

Action S7.22

Mitigation Action #22: Develop and implement Little Calumet River flood mitigation project					
Lead Agency/Department Organization: Public Works	**Supporting Agencies/ Organizations:** Village Engineer / MWRD	**Estimated Cost:** High	**Potential Funding Source:** General Fund Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) Flood Mitigation Assistance (FMA) Program Community Development Block Grant (CDBG) FEMA Public Assistance (PA) Local,State, and Federal Project	**Estimated Projected Completion Date:** Long-Term	**Hazard(s) Mitigated:** Flood (Riverine, Urban, Coastal/Shoreline)
Year Initiated		2026			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		1,2,3,4,6,7,9,10,12,13			
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:	Develop and implement Little Calumet River flood mitigation project
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 S7.23

Mitigation Action #23: Provide flood mitigation to the areas around Van O Park.					
Lead Agency/Department Organization: Public Works	**Supporting Agencies/ Organizations:** Village Engineer / MWRD	**Estimated Cost:** High	**Potential Funding Source:** General Fund State Special Funds Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) Flood Mitigation Assistance (FMA) Program Community Development Block Grant (CDBG) FEMA Public Assistance (PA) Local, State, Federal Partnership	**Estimated Projected Completion Date:** Long-Term	**Hazard(s) Mitigated:** Flood (Riverine, Urban, Coastal/Shoreline)

Year Initiated	2027
Applicable Jurisdiction	Village of South Holland
Applicable Goal	1,2,3,4,5
Applicable Objective	1,2,3,4,9,12,13
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:	Provide flood mitigation to the areas around Van O Park.
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 S7.24

Mitigation Action #24: Acquire and remove single family houses from flooding area of 157th and Woodlawn West approximately 10 structures.					
Lead Agency/Department Organization: Building Department	**Supporting Agencies/ Organizations:** Village Engineer / MWRD	**Estimated Cost:** High	**Potential Funding Source:** General Fund State Special Funds Hazard Mitigation Grant Program (HMGP) Building Resilient Infrastructure and Communities (BRIC) Flood Mitigation Assistance (FMA)	**Estimated Projected Completion Date:** Short-Term	**Hazard(s) Mitigated:** Flood (Riverine, Urban, Coastal/Shoreline)

			Program Community Development Block Grant (CDBG) FEMA Public Assistance (PA) Local, State, and Federal Project		
Year Initiated		2026			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		2,3,4,6,7,8,9,10,11,12,13			
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:		Acquire and remove single family houses from flooding area of 157th and Woodlawn West approximately 10 structures.			
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 S7.25

Mitigation Action #25: Bank Stabilization along the Little Calumet River between Wigwam Park and 155th Place					
Lead Agency/Department Organization: Community Department	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Medium	**Potential Funding Source:** General Fund Local or State Special Taxes	**Estimated Projected Completion Date:**	**Hazard(s) Mitigated:** Flood (Riverine, Urban, Coastal/Shoreline)

	Robinson Engineering / Public Works		Building Resilient Infrastructure and Communities (BRIC) Flood Mitigation Assistance (FMA) Program FEMA Public Assistance (PA)	Short-Term	

Year Initiated	2025
Applicable Jurisdiction	Village of South Holland
Applicable Goal	2,6
Applicable Objective	3,9,13
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)	Medium
Action/Implementation Plan and Project Description:	Bank Stabilization along the Little Calumet River between Wigwam Park and 155th Place
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

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 S7.1

Mitigation Action #1: Continue using the flood management committee as hazard advisory to the Village Board and public					
Lead Agency/Department Organization: Building Department	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Complete	**Hazard(s) Mitigated:** Flooding
Year Initiated	2014				
Applicable Jurisdiction	Village of South Holland				
Applicable Goal	1,2,3,4,5,6				
Applicable Objective	3, 4, 5, 6, 8, 10, 12, 13				
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:	Committee meets on an annual basis				
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	R				

Action S7.2

Mitigation Action #2: Consider or maintain participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.					
Lead Agency/Department Organization: Building Department	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Long-term	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction					
Applicable Goal		1,2,3,5,6			
Applicable Objective		3, 4, 5, 6, 7, 9, 10, 11, 13			
Cost Analysis (Low, Medium, High)		Low			
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:		The Village continues to review and update building codes as needed. This project is still on going and has been a very popular program for our residents.			
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 S7.3

Mitigation Action #3: Review floodplain regulations to identify feasible enhancements to reduce future risk to flooding.					
Lead Agency/Department Organization: Building Department-Village Engineer	**Supporting Agencies/ Organizations:**	**Estimated Cost:** High	**Potential Funding Source:** General Fund, BRIC, FEMA	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			

Applicable Goal	1,2,3
Applicable Objective	1, 3, 4, 9, 10, 12, 13
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:	The Village continues to review and enforce development in the flood plan.
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 S7.4

Mitigation Action #4: Update flood response plan annually.					
Lead Agency/Department Organization: Building -Fire - Police and Public Works Department	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** Flooding, Severe Weather
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,5			
Applicable Objective		1, 5, 8, 9, 12			
Cost Analysis (Low, Medium, High)		Medium			
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:		Continue to make changes in our flood response plan as needed.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority **Completion status legend:** **N** = New; **I** = In Progress Toward Completion;		O			

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

Action S7.5

Mitigation Action #5: Provide mitigation rebates					
Lead Agency/Department Organization: Building Department	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Medium	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** Flooding-Sewer Backup, Severe Weather
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3			
Applicable Objective		2			
Cost Analysis (Low, Medium, High)		Medium			
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:		The Village has committed increased funds to continue to provide flood proofing single family residence. This increase in funding has allow more residence to take advantage of our split the cost program on flood proofing.			
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 S7.6

Mitigation Action #6: Complete street and sewer repairs and conduct storm water system maintenance.					
Lead Agency/Department Organization: City Engineer	**Supporting Agencies/ Organizations:**	**Estimated Cost:** High	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Long-term	**Hazard(s) Mitigated:** Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3			
Applicable Objective		1, 2, 9, 12			
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:		Continue to make improvements as funding dictates. Village has replaced and improved storm the storm drainage in certain high hazard areas of the community. We also continue to partner with the MWRD on studies to continue improving our drainage system within the Village.			
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 S7.7

Mitigation Action #7: Complete special information projects					
Lead Agency/Department Organization: Building Department-Fire Department-Public Works-Village Engineer	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3			
Applicable Objective		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)		Medium			
Action/Implementation Plan and Project Description:		In conjunction with the Village Comprehensive Plan we continue to discuss ways to better our info structure through capital improvements.			
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 S7.8

Mitigation Action #8: Provide additional staff training					
Lead Agency/Department Organization: Building Department-Fire Department-Public Works	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund, SHSP	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** All
Year Initiated		2014			

Applicable Jurisdiction	Village of South Holland
Applicable Goal	1,2,3,5
Applicable Objective	1, 4, 6, 8, 10
Cost Analysis (Low, Medium, High)	Medium
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:	The Village has continued to fund the needed training to employees involved in maintaining our Village Flood Plan.
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 S7.9

Mitigation Action #9: Where appropriate, support retrofitting, purchasing, or relocating structures in hazard-prone areas to prevent future damage. Give priority to properties with exposure to repetitive losses.					
Lead Agency/Department Organization: Village Administration	**Supporting Agencies/ Organizations:**	**Estimated Cost:** High	**Potential Funding Source:** FEMA Hazard Mitigation Grants, BRIC, HMGP, FMA	**Estimated Projected Completion Date:** Long-term (depending on funding)	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3			
Applicable Objective		7,13			
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:	The Village continues to make recommendations when and where they are needed.
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 S7.10

Mitigation Action #10: Continue to support the countywide actions identified in this plan.					
Lead Agency/Department Organization: Village Administration	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short- and Long-term	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,5			
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:		The Village continues to support CCDHS and this joint effort plan.			
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 S7.11

Mitigation Action #11: Actively participate in the plan maintenance strategy identified in this plan.					
Lead Agency/Department Organization: EMRS, Village Administration	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short-term	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,5			
Applicable Objective		3,4,6			
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)		Medium			
Action/Implementation Plan and Project Description:		The Village is committed to updating and following through with this plan.			
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 S7.12

Mitigation Action #12: Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements.					
Lead Agency/Department Organization: Village Administration	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Low	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short-term and Ongoing	**Hazard(s) Mitigated:** Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			

Applicable Goal	1,2,5
Applicable Objective	4,6,9
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:	The Village continues to evaluate and implement programs when needed.
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 S7.13

Mitigation Action #13: Where feasible, implement a program to record high water marks following high-water events.					
Lead Agency/Department Organization: Village Administration	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Medium	**Potential Funding Source:** General Fund, FEMA Public Assistance (PA)	**Estimated Projected Completion Date:** Long Term	**Hazard(s) Mitigated:** Flooding; Severe Weather
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,5			
Applicable Objective		3,6,9			
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:		The Village actively monitors river gauges located on the Little Calumet River in South Holland and Thorn-Creek in Thornton.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority		O			

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	

Action S7.14

Mitigation Action #14: Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.					
Lead Agency/Department Organization: Planning and Development Director	**Supporting Agencies/ Organizations:**	**Estimated Cost:** Medium	**Potential Funding Source:** General Fund	**Estimated Projected Completion Date:** Short-term and ongoing	**Hazard(s) Mitigated:** All
Year Initiated		2014			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,5			
Applicable Objective		3,4,6,10,13			
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:		The plan has been integrated in all strategic planning within the Village. Most recently it has been introduced into our Villages Comprehensive Plan.			
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 S7.15

Mitigation Action #15: Enhance Tornado Warning System					
Lead Agency/Department Organization: Fire Department	**Supporting Agencies/ Organizations:** South Holland	**Estimated Cost:** $500,000; Medium	**Potential Funding Source:** BRIC, HMGP, General Fund	**Estimated Projected Completion Date:** Short-Term	**Hazard(s) Mitigated:** Tornado
Year Initiated		2019			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		2			
Applicable Objective		5			
Cost Analysis (Low, Medium, High)		Medium - The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Enhance coverage of tornado warning system with lighting detection for village parks 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.			
Action/Implementation Plan and Project Description:		Conduct study of current warning system placement within the Village. Update warning system with current technology available. Find locations for additional sirens if needed.			
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 S7.16

Mitigation Action #16: Increase drainage capacity to Elm St., Cherry St., Park Ln, and Maple St.					
Lead Agency/Department Organization: Public Works	**Supporting Agencies/ Organizations:** Village Engineer and Water Reclamation	**Estimated Cost:** $1,800,000-$2,800,000; High	**Potential Funding Source:** General Fund, BRIC, HMGP, FMA	**Estimated Projected Completion Date:** Long-Term	**Hazard(s) Mitigated:** Flood
Year Initiated		2019			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		2,9			
Cost Analysis (Low, Medium, High)		High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Alleviate stormwater flooding High - Project will provide an immediate reduction of risk exposure for life and property			
Action/Implementation Plan and Project Description:					
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 S7.17

Mitigation Action #17: Increase flowage of stormwater on 170th Street between Cottage Grove and Parkside.					
Lead Agency/Department Organization: Public Works Department	**Supporting Agencies/ Organizations:** Village Engineer and Water Reclamation	**Estimated Cost:** $700,000 - $1,200,000; High	**Potential Funding Source:**	**Estimated Projected Completion Date:**	**Hazard(s) Mitigated:** Flood

			General Fund, BRIC, HMGP, FMA	Long-Term	
Year Initiated		2019			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		2, 9, 12			
Cost Analysis (Low, Medium, High)		High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Alleviate stormwater flooding High - Project will provide an immediate reduction of risk exposure for life and property			
Action/Implementation Plan and Project Description:					
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 S7.18

Mitigation Action #18: Reconstruction of Thorn Ditch and Pioneer Park to allow increase of water flowage and capacity of water retention.					
Lead Agency/Department Organization: Public Works	**Supporting Agencies/ Organizations:** Village Engineer and Water Reclamation	**Estimated Cost:** $650,000-$1,200,000; High	**Potential Funding Source:** General Fund, BRIC, HMGP, FMA	**Estimated Projected Completion Date:** Long-Term	**Hazard(s) Mitigated:** Flood
Year Initiated		2019			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		2,9,12			

Cost Analysis (Low, Medium, High)	High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
Priority and Level of Importance (Low, Medium, High)	High
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Alleviate stormwater flooding High - Project will provide an immediate reduction of risk exposure for life and property
Action/Implementation Plan and Project Description:	
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	I

Action S7.19

Mitigation Action #19: Remove all asphalt at Gouwens Park and replace with easy drainage material (drain-thru).					
Lead Agency/Department Organization: Public Works Department	**Supporting Agencies/ Organizations:** Village Engineer	**Estimated Cost:** $600,000-$1,500,000; High	**Potential Funding Source:** General Fund, BRIC, HMGP, FMA	**Estimated Projected Completion Date:** Long-Term	**Hazard(s) Mitigated:** Flood
Year Initiated		2019			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		3, 13			
Cost Analysis (Low, Medium, High)		High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High - Project will provide an immediate reduction of risk exposure for life and property			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority		O			

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	

Action S7.20

Mitigation Action #20: Increase storm capacity and reroute storm drainage to larger detention area. In the area of East 160th Pl. and University Ave.					
Lead Agency/Department Organization: Village Administration	**Supporting Agencies/ Organizations:**	**Estimated Cost:** $800,000-$1,500,000; High	**Potential Funding Source:** General Fund, BRIC, HMGP, FMA	**Estimated Projected Completion Date:** Long-Term	**Hazard(s) Mitigated:** Flood
Year Initiated		2019			
Applicable Jurisdiction		Village of South Holland			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		2, 3, 9, 10, 13			
Cost Analysis (Low, Medium, High)		High - Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Alleviate stormwater flooding High - Project will provide an immediate reduction of risk exposure for life and property			
Action/Implementation Plan and Project Description:					
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			

Completed Actions

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

Completed Action Items
No completed items at this time.

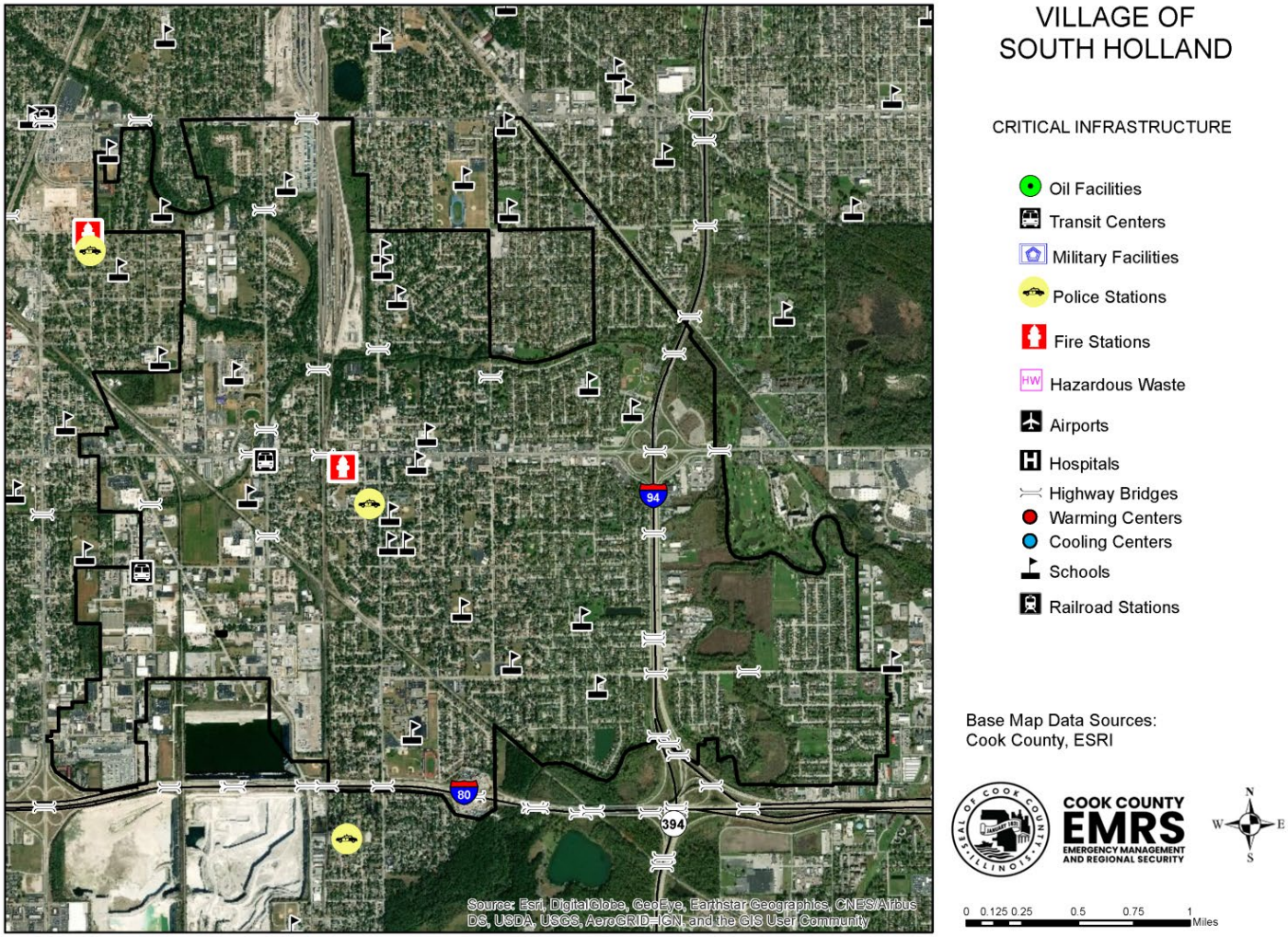
Future Needs to Better Understand Risk/Vulnerability

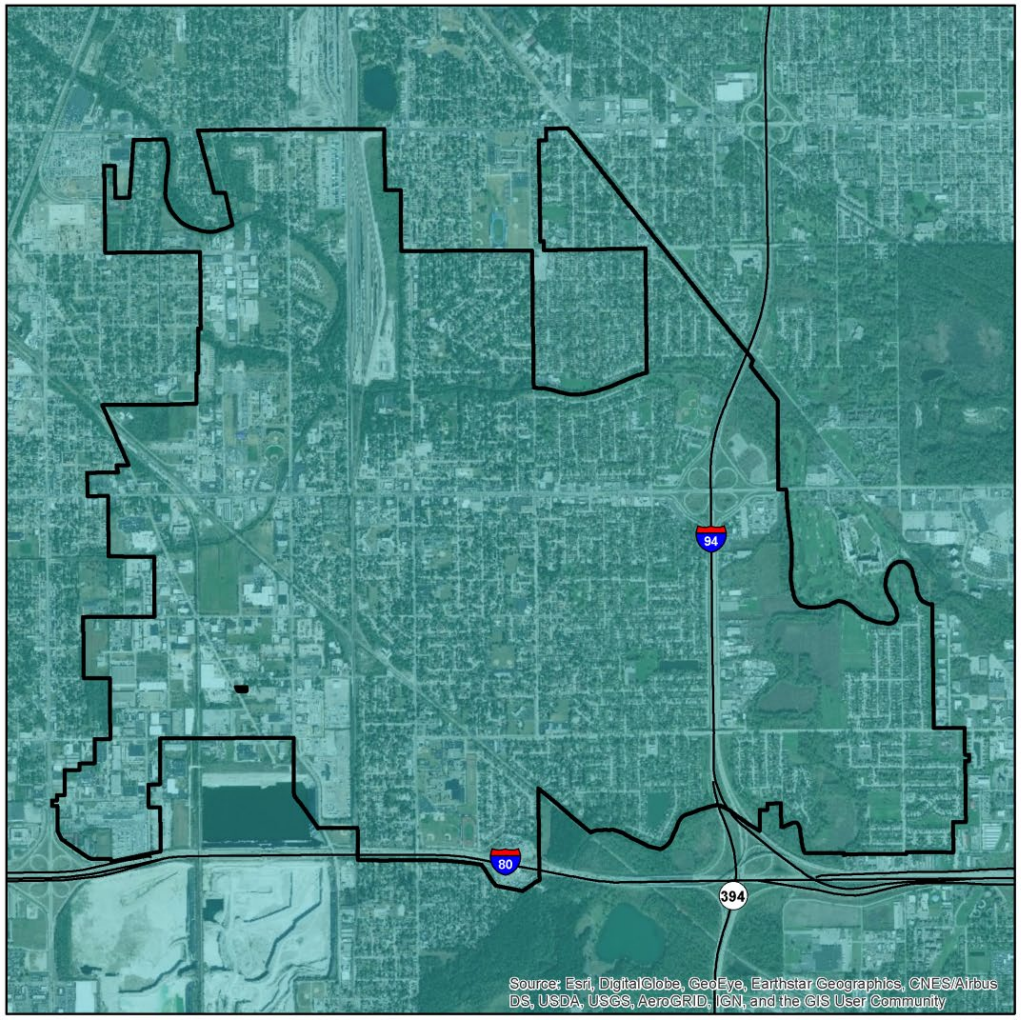
We will continue to be aggressive in grant funding to complete the above hazard mitigation initiatives.

Additional Comments

No additional comments at this time.

Hazard Mapping





VILLAGE OF SOUTH HOLLAND

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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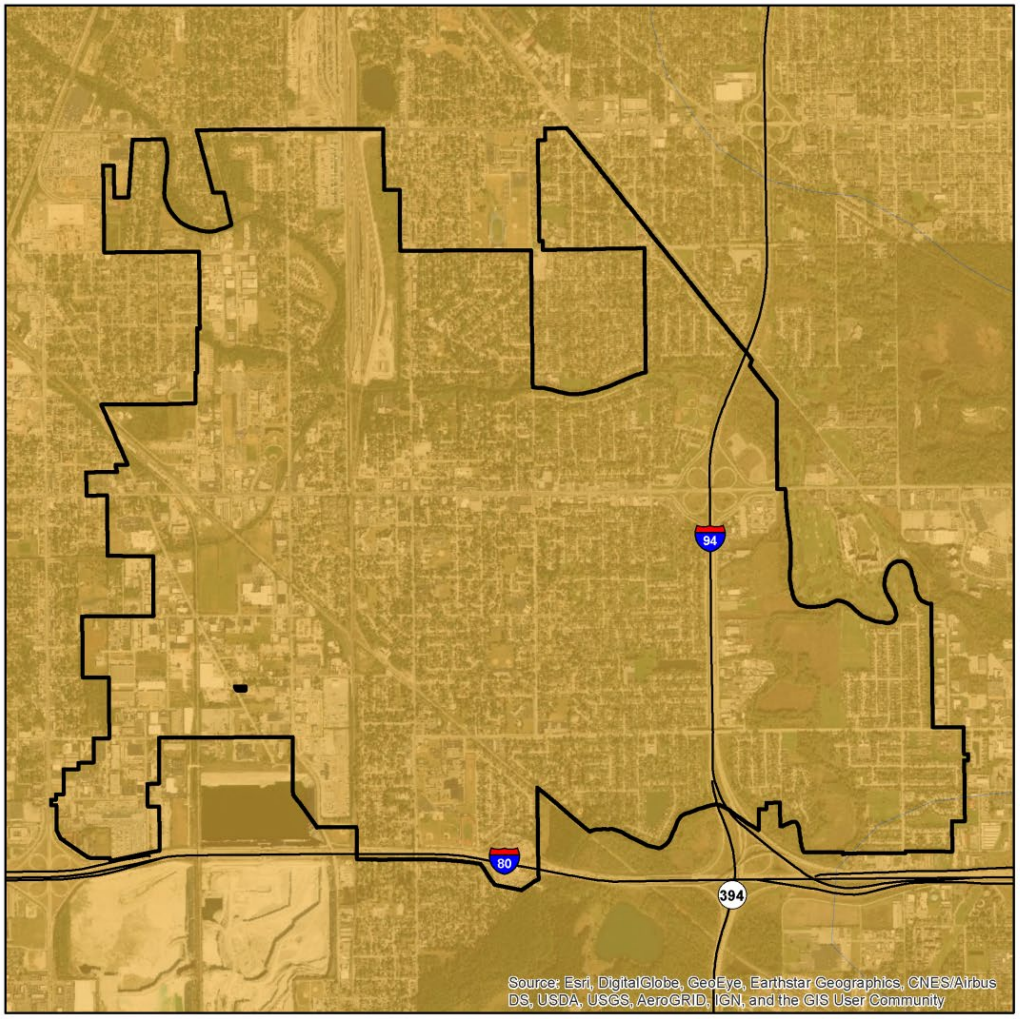

VILLAGE OF SOUTH HOLLAND

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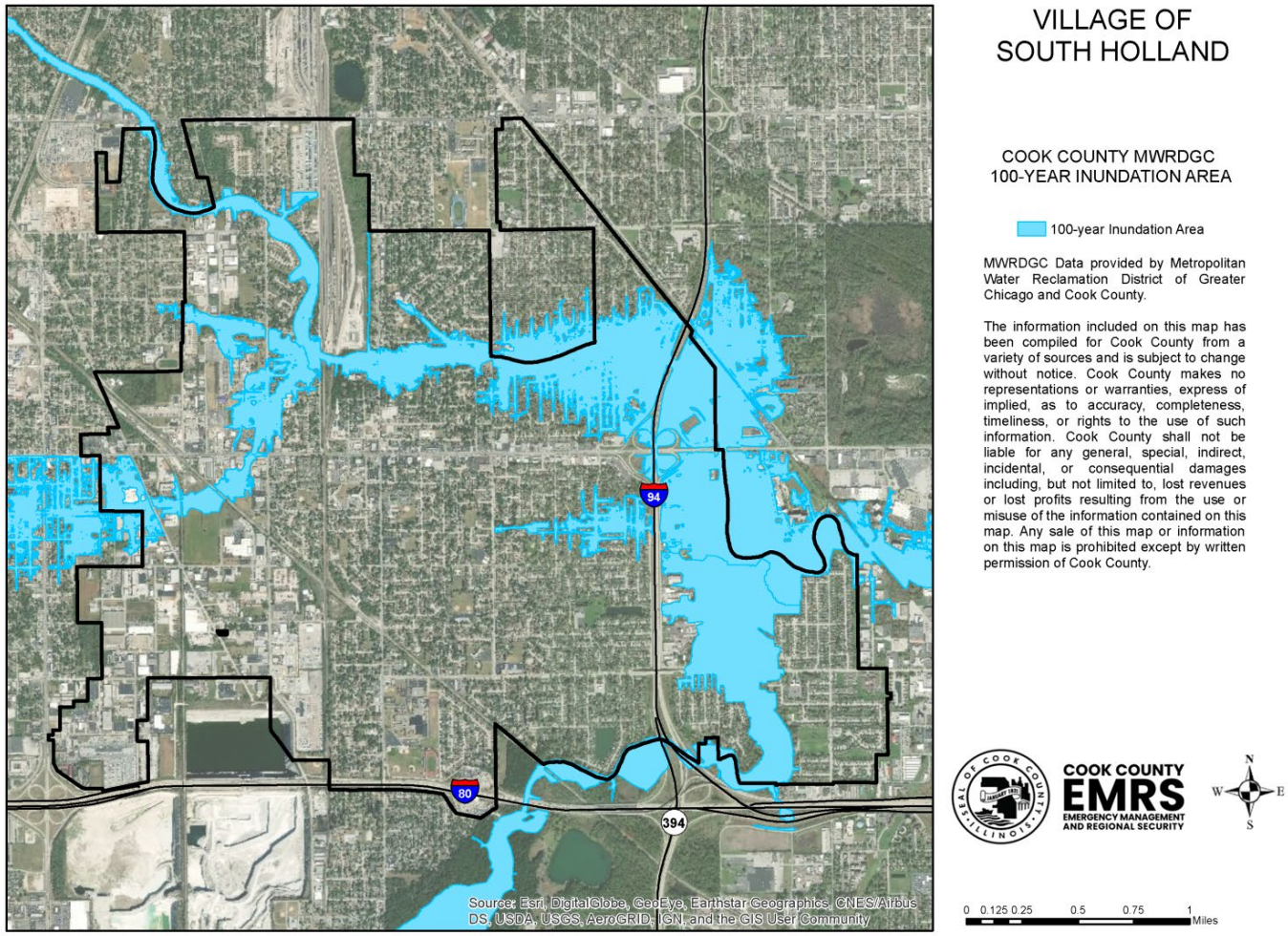
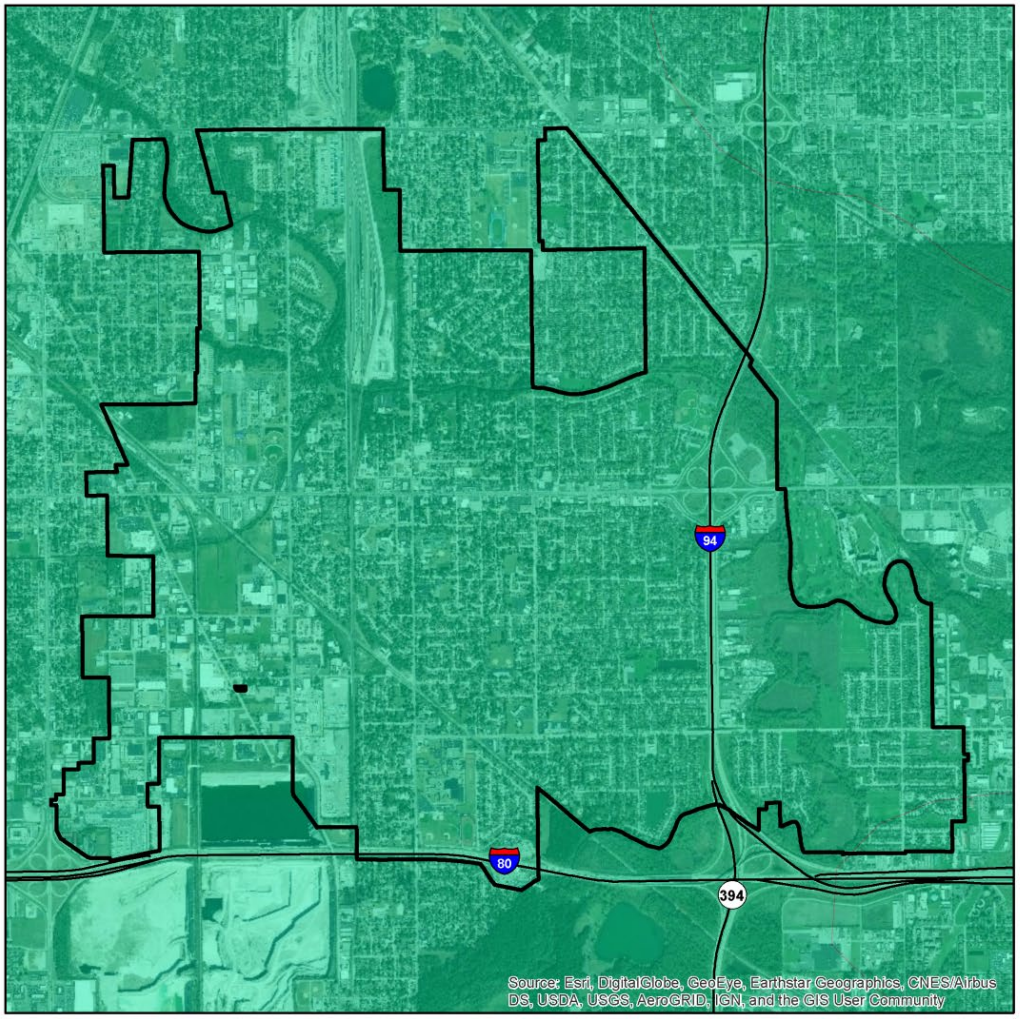
DISCLAIMER: The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from http://www.fema.gov.





VILLAGE OF SOUTH HOLLAND

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

- high
- low
- very low

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

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COOK COUNTY EMRS
EMERGENCY MANAGEMENT AND REGIONAL SECURITY

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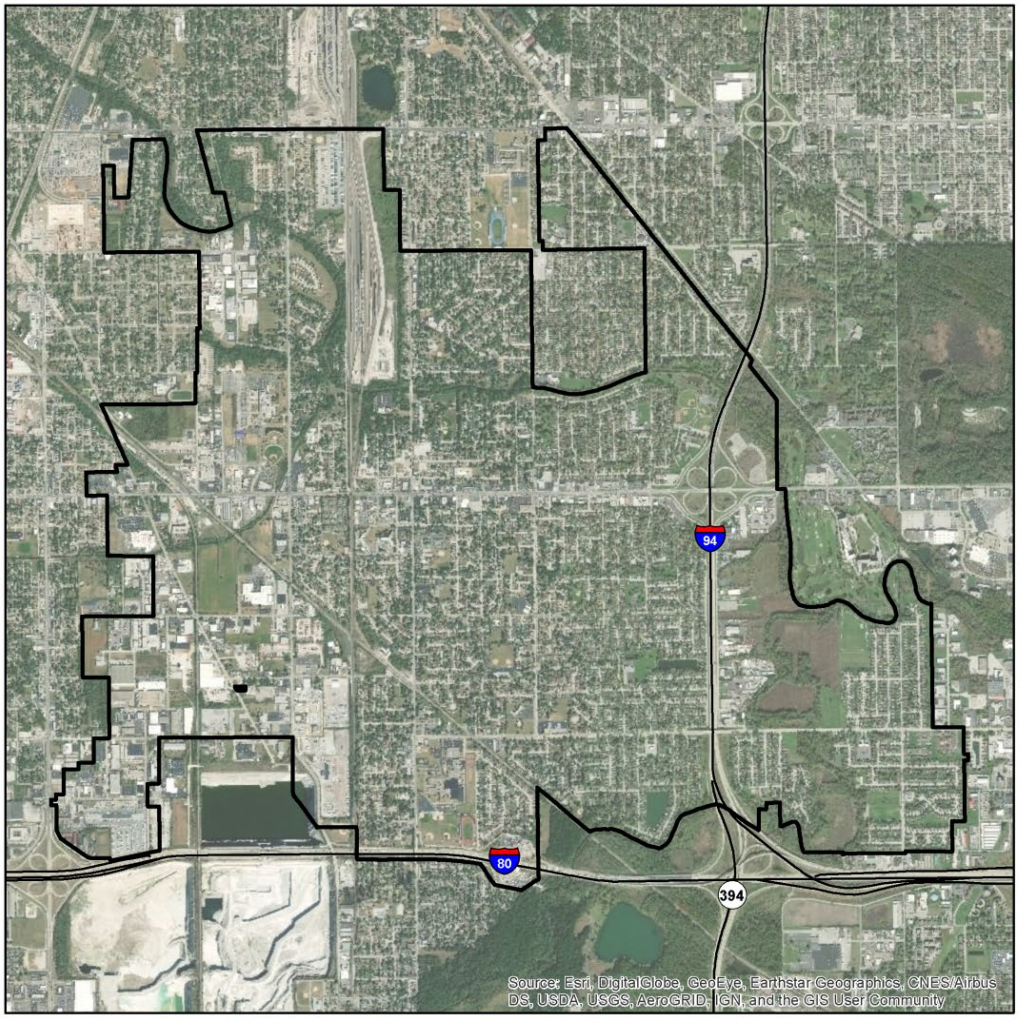

VILLAGE OF SOUTH HOLLAND

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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