

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

**Richton Park Annex**

**FINAL**

July 2019

Prepared for:



Cook County  
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## Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
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## Jurisdiction Profile

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

- **Date of Incorporation:** June 8th, 1926
- **Current Population:** The population in 2016 according to the US Census estimate was 13,557.
- **Population Growth:** Based on the data tracked by the U.S. Census Bureau, Richton Park has experienced a relatively flat rate of population change. The overall population as of 2016 was 13,557, down by 76 from 2010. This equates to a decrease of approximately 0.56 percent.
- **Location and Description:** Richton Park is located at Latitude: 41.48 N, Longitude: 87.73 W. According to the 2010 census, Richton Park has a total area of 3.992 square miles (10.34 km<sup>2</sup>), of which 3.98 square miles (10.31 km<sup>2</sup>) (or 99.7%) is land and 0.012 square miles (0.03 km<sup>2</sup>) (or 0.3%) is water. It is bordered by Matteson to the north, Olympia Fields to the northeast, Park Forest to the east, University Park to the south and Frankfort to the west.
- **Brief History:** Cook County, 28 miles S of the Loop. Richton Park is a largely residential village located on the southern border of Cook County. The village sits astride the Sauk Trail, a modern highway that follows the course of a Native American transportation route that ran from Rock Island on the Mississippi River across Illinois and Indiana to Detroit. In 1836, Joseph Batchelder was the first resident, and originally, the Village was named Richton, after his formal place of residence (Richton Vermont). By the late 1840s German migrants began farming in the area, then known as Thorn Creek. After the arrival of the Illinois Central Railroad in 1852, developers established a depot and platted a small agricultural village where the rail line crossed the Sauk Trail. In 1926, the Illinois Central Railroad electrified its suburban lines, with Richton as the last stop. Local residents incorporated the village, renaming it Richton Park. When Chicago's suburban sprawl finally pushed into the area in the late 1960s and 1970s, the village's population boomed as it annexed new housing developments. There were 2,558 people living in the village in 1970. By 1980 the population had grown to nearly 9,403, and in 2000 the village had 12,533 residents.
- **Climate:** The climate in Richton Park is classified as humid continental, with all four seasons distinctly represented: wet springs; hot/often humid summers; pleasant autumns; and cold winters. Annual precipitation is averages 41 inches per year - reaching its lowest points in the months of January and February and peaks in the months of May and June. Snowfall in the Village averages 28 inches per year. Winter conditions can persist well into April and even occasionally into May. Thunderstorms are especially prevalent in the spring as the Village's proximity to Chicago's lakeside location makes it a center of conflicts between large volumes of warmer and colder air, triggering many kinds of severe weather. On a typical summer day, humidity is usually moderately high and temperatures ordinarily reaching anywhere between 78 and 92 °F (26 and 33 °C). The extreme heat that the Chicago area is capable of experiencing during the height of the summer season can persist into the autumn season. Temperatures have reached 100 degrees high and subzero lows below -18 °C. Fall can bring heavy thunderstorms, many of which are capable of producing flooding. The average first accumulating snow occurs around Nov 19.

- **Governing Body Format:** Richton Park operates under the council-manager form of government. The Board of Trustees consists of six Trustees, a Village President, and a Village Clerk, all elected to four year terms. In this form of government, the Board has only legislative power, except that it is empowered to approve all expenses and liabilities of the municipality. For certain purposes, the Village Manager is both the administrative and executive head of the government. The elected officials are the community leaders and policy makers who establish a vision for the Village, and who hire a Village Manager to carry out policy and ensure that all residents are being equitably served. This body of Government will assume the responsibility for the adoption and implementation of this plan. The Village Manager coordinates the work of department heads and other employees who help ensure the smooth and efficient delivery of services. The Village of Richton Park operates seven (7) departments including the Park and Recreation, Community and Economic Development, Finance, Fire, Administration, Police, and the Public Works Departments.
- **Development Trends:** Richton Park has traditionally been a bedroom community situated in the far south corner of the Chicago metropolitan area. As such it has traditionally been the home of single-family homes and the retail and commercial uses that support residential development. Recently, however, Richton Park has pursued development projects in two key areas that are consistent with contemporary trends in real estate development. The Village has been pursuing development adjacent to its Metra public transit station, in an attempt to expand its range of housing and retail options. In addition, the Village has been pursuing residential, commercial and industrial development in much of its land area located west of Interstate 57, along Sauk Trail. These uses would complement the existing Walmart location on the southwest corner of I-57 and Sauk Trail, and would also complement existing logistics uses that are emerging along the entire I-57 corridor. Richton Park is well positioned to take full advantage of current development trends.

## 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.

<b>TABLE: LEGAL AND REGULATORY CAPABILITY</b>					
	<b>Local Authority</b>	<b>State or Federal Prohibitions</b>	<b>Other Jurisdictional Authority</b>	<b>State Mandated</b>	<b>Comments</b>
<b>Codes, Ordinances &amp; Requirements</b>					
Building Code	Yes	No	No	Yes	<u>International Building Code</u> , 2006 Ord. 1359. Passed 6-9-08
Zonings	Yes	No	No	Yes	(65 ILCS 5/) Illinois Municipal Code. Ordinance 754, passed November 11, 1991
Subdivisions	Yes	No	No	No	ORD 1549 Passed June, 2013
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) ORD 1549 Passed June, 2013

Post Disaster Recovery	No	No	No	No	N/A
Real Estate Disclosure	No	No	No	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	Yes	No	No	No	Land Use Plan November 2007
Site Plan Review	Yes	No	No	No	ORD 1549 Passed June, 2013
Public Health and Safety	Yes	No	Yes	No	Cook County Dept. of Public Health
Environmental Protection	No	No	No	No	N/A
<b>Planning Documents</b>					
General or Comprehensive Plan	Yes	No	No	No	Ord. 1577. Passed 10-27-14
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					
Floodplain or Basin Plan	Yes	No	Yes	No	MWRD Butterfield Creek, Richton Park Floodplain and Stormwater Management Code May 2008 ORD, 1359
Stormwater Plan	Yes	No	Yes	No	Richton Park Town Center April 2014, MWRD Butterfield Creek, Richton Park Floodplain and Stormwater Management Code May 2008
Capital Improvement Plan	Yes	No	No	No	August 2016
<i>What types of capital facilities does the plan address?</i>					Infrastructure, Buildings, and Assets
<i>How often is the plan revised/updated?</i>					Annually

Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	No	No	
Shoreline Management Plan	No	No	No	No	
<b>Response/Recovery Planning</b>					
Comprehensive Emergency Management Plan	Yes	No	No	Yes	1st. May 2017, amended biennially
Threat and Hazard Identification and Risk Assessment	Yes	No	Yes	No	Cook County DHSEM
Terrorism Plan	Yes	No	No	Yes	Emergency Operations Plan Page 132
Post-Disaster Recovery Plan	No	No	Yes	Yes	Emergency Operations Plan
Continuity of Operations Plan	Yes	No	Yes	No	Emergency Operations Plan Page 26
Public Health Plans	Yes	No	Yes	No	Emergency Operations Plan Page 98

**TABLE: FISCAL CAPABILITY**

<b>Financial Resources</b>	<b>Accessible or Eligible to Use?</b>
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	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	Public Works, Community Development, and Village Engineering Firm
Engineers or professionals trained in building or infrastructure construction practices	Yes	Village Engineering Firm
Planners or engineers with an understanding of natural hazards	Yes	Building, Public Works, and Engineering
Staff with training in benefit/cost analysis	Yes	Building Department
Surveyors	No	Outsourced
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	Outsourced
Emergency manager	Yes	Police, Fire, Public Works
Grant writers	Yes	Engineering, and all Village Departments

**TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE**

What department is responsible for floodplain management in your jurisdiction?	Engineering
Who is your jurisdiction’s floodplain administrator? (department/position)	Village Engineering Firm
Are any certified floodplain managers on staff in your jurisdiction?	Village Engineering Firm

What is the date of adoption of your flood damage prevention ordinance?	August 12, 1996
When was the most recent Community Assistance Visit or Community Assistance Contact?	Unknown
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?	Continued training is always welcomed
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 / Yes

**TABLE: COMMUNITY CLASSIFICATIONS**

	Participating?	Classification	Date Classified
Community Rating System	Yes		
Building Code Effectiveness Grading Schedule	No		
Public Protection/ISO	Yes	3	2017
StormReady	No		
Tree City USA	No		

## Jurisdiction-Specific Natural Hazard Event

The information provided below was solicited from the jurisdiction and supported by NOAA and other relevant data sources.

The *Natural Hazard Events Table* lists all past occurrences of natural hazards within the jurisdiction. Repetitive flood loss records are as follows:

- Number of FEMA-Identified Repetitive Loss Properties: 1
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: Unknown

Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Severe Weather	-	6/20/2017	\$500 in property damage.
Polar Vortex/Winter Weather Events	-	12/2013 - 3/2014	-
Flood	-	6/9/2011	-
Flood	1800-031-63706-00	10/23/2008	-
Tornado	-	2008	-

### Jurisdiction-Specific Hazards and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2019 Cook County Multi-Jurisdictional Hazard Mitigation Plan Update. This section only addresses the hazards and their associated impacts that are **relevant** and **unique** to the municipality.

**Flood:** The Village has experienced overbank flooding of the Butterfield Creek East Branch Tributary, and Sauk Trail/Governors Highway intersection flooding, Flooding also occurs at Governors Highway/CN Railroad underpass, Other factors that contribute to the Village's susceptibility of flooding include lack of east/west roadway connectivity, storm sewer sizing, lack of proper stormwater detention in ALW developments, and improper culvert sizing at Sauk Trail and Governors Highway.

**Extreme Heat:** The Village Hall building has a non-functioning backup generator, increasing the community's vulnerability to extreme heat.

**Snow:** The Village Hall building has a non-functioning backup generator, increasing the community's vulnerability to snow. Moreover, the lack of major east/west roadway connectivity makes the Village more vulnerable to snow.

**Blizzards:** The Village Hall building has a non-functioning backup generator, increasing the community's vulnerability to blizzards. Moreover, the lack of major east/west roadway connectivity makes the Village more vulnerable to blizzards.

**Extreme Cold:** The Village Hall building has a non-functioning backup generator, increasing the community's vulnerability to extreme cold. Additionally, the condition of underground utilities (i.e. water main age/condition) increases the Village's vulnerability.

**Tornado:** The Village's vulnerability to the impacts of tornadoes is a function of lack of backup power for water treatment facilities as well as lack of east/west roadway connectivity (i.e. connecting Imperial Drive to Polk Ave., and extension of Poplar Ave.).

## Hazard Risk Ranking

The *Hazard Risk Ranking Table* below presents the ranking of the hazards of concern. Hazard area extent and location maps are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

<b>TABLE: HAZARD RISK RANKING</b>		
<b>Rank</b>	<b>Hazard Type</b>	<b>Risk Rating Score (Probability x Impact)</b>
1	Severe Weather	54
2	Severe Winter Weather	54
3	Tornado	34
4	Flood	22
5	Earthquake	11
6	Drought	10
7	Dam Failure	0

## Mitigation Strategies and Actions

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

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

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

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX						
Statu s	Hazards Mitigated	Objectiv es Met	Lead Agencie s	Estimated Cost	Sources of Funding	Timeline/Projected Comple tion Date (a)
<b>Action R1.1—Flood mitigation</b>						
New	Flood, Ice Storms	1, 2, 3, 4, 9, 10	Richton Park	\$15,000,00 0; High	Grants	2023
<b>Action R1.2—Poplar Avenue Roadway Connection</b>						
New	Flood, Snow, Blizzards, Ice Storms, Epidemic or Pandemic	1, 2, 3, 12, 13	Richton Park	\$3,733,950 ; High	Grants/Local Funds	2023
<b>Action R1.3—Imperial Drive/Polk Avenue Connection</b>						
New	Flood, Snow, Blizzard,	1, 2, 3, 12, 13	Richton Park	\$685,000; High	Grants/Local Funds	2023

	Ice Storms, Epidemic or Pandemic					
<b>Action R1.4—Well No. 5</b>						
New	Drought, Extreme Heat, Extreme Cold, Epidemic or Pandemic, Secondary impacts from mass influx of evacuees	1, 2, 3, 9, 13	Richton Park	\$4,100,000 ; High	Grants/Loans/Bonds	2030
<b>Action R1.5—I-57 Watermain Crossing/Loop</b>						
New	Drought, Earthquake, Extreme Heat, Blizzard, Extreme Cold, Ice Storms, Epidemic or Pandemic, Secondary impacts from mass influx of evacuees	1, 2, 3, 12, 13	Richton Park	\$992,000; High	Grants/Local Funds	2027

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

**TABLE: MITIGATION STRATEGY PRIORITY SCHEDULE**

Action Number	Number of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority (a)
1	6	Medium	High	No	Yes	Unknown	High
2	5	High	High	Yes	Yes	Unknown	High
3	5	Medium	High	No	Yes	Unknown	Medium
4	5	Medium	High	No	Yes	Unknown	Medium
5	5	High	High	Yes	Yes	Unknown	Medium

(a) See Chapter 1 for explanation of priorities.



## New Mitigation Actions

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

**Action R1.1**

<b>Mitigation Action</b>	Flood Mitigation
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	Richton Park
<b>Lead Agency/Organization</b>	Richton Park
<b>Supporting Agencies/Organizations</b>	
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management.</li> <li>• Increase the resilience of (or protect and maintain) infrastructure and critical facilities.</li> <li>• Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change.</li> <li>• Integrate hazard mitigation policies into land use plans in the planning area.</li> <li>• Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.</li> <li>• Strengthen codes and land use planning and their enforcement, so that new construction or redevelopment can avoid or withstand the impacts of natural hazards.</li> </ul>
<b>Potential Funding Source</b>	Grants
<b>Estimated Cost</b>	\$15,000,000
<b>Benefits (loss avoided)</b>	Flood plain relocation, flooding reduction, property damage reduction, improved access for first responders through reduction in

	impassable roadway flooding, increased opportunity for economic development
<b>Projected Completion Date</b>	2023
<b>Priority and Level of Importance (Low, Medium, High)</b>	High Priority
<b>Benefit Analysis (Low, Medium, High)</b>	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.
<b>Cost Analysis (Low, Medium, High)</b>	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
<b>Actual Completion Date</b>	TBD

Recommended Mitigation Action/Implementation Plan and Project Description	
<b>Action/Implementation Plan and Project Description:</b>	This project includes multiple stormwater projects along the Butterfield Creek East Branch Tributary that runs from south to north through the Village of Richton park. Mitigation actions include culvert upsizing, flood storage, wetland mitigation, regional detention basins, channel relocation, etc. Implementation is currently scheduled to begin in the fall of 2021 and will continue working from downstream to upstream as funding is procured from granting agencies.

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

Mitigated Hazards	
	<b>All Hazards</b>
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog

	High Wind
	Snow
	Blizzard
	Extreme Cold
X	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

**Action R1.2**

<b>Mitigation Action</b>	Poplar Avenue Roadway Connection
<b>Year Initiated</b>	2021
<b>Applicable Jurisdiction</b>	Richton Park
<b>Lead Agency/Organization</b>	Richton Park
<b>Supporting Agencies/Organizations</b>	
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management.</li> <li>• Increase the resilience of (or protect and maintain) infrastructure and critical facilities.</li> <li>• Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change.</li> <li>• Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.</li> <li>• Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
<b>Potential Funding Source</b>	Grants/Local Funds
<b>Estimated Cost</b>	\$3,733,950.00
<b>Benefits (loss avoided)</b>	Flood plain relocation, flooding reduction, property damage reduction, improved access for first responders through reduction in impassable roadway flooding, increased

	opportunity for econ. development, Create a second east/west corridor between state hwy
<b>Projected Completion Date</b>	2023
<b>Priority and Level of Importance (Low, Medium, High)</b>	High Priority
<b>Benefit Analysis (Low, Medium, High)</b>	High—Project will provide an immediate reduction of risk exposure for life and property.
<b>Cost Analysis (Low, Medium, High)</b>	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
<b>Actual Completion Date</b>	TBD

<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	Poplar Ave is the only potential route within the Village limits under Village jurisdiction that provides east/west continuity between Cicero Ave (IL-50) and Governors Highway. The existing route is not improved across the Butterfield Creek East Branch Tributary just west of Governors Highway. The Village is seeking ways to improve east/west connectivity in the case of a disaster as currently only one road (Sauk Trail) runs east/west the entire length of the Village. The Village also seeks ways to alleviate traffic congestion that occurs on Sauk Trail. The connection of Poplar Avenue between Governors Highway and Cicero Avenue will mitigate impassible roads due to flooding, and alleviate traffic congestion during evacuations. It also will provide another roadway connection to the Village's Metra Station for alternative methods of evacuation.

<b>Mitigation Action and Project Maintenance</b>		
<b>Year</b>	<b>Status</b>	<b>Comments</b>
2019	New	
2020		
2021		
2022		
2023		

<b>Mitigated Hazards</b>	
	<b>All Hazards</b>
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat

	Lightning
	Hail
	Fog
	High Wind
X	Snow
X	Blizzard
	Extreme Cold
X	Ice Storms
	Tornado
X	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

**Action R1.3**

<b>Mitigation Action</b>	Imperial Drive/Polk Avenue Connection
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	Richton Park/Rich Township
<b>Lead Agency/Organization</b>	Richton Park
<b>Supporting Agencies/Organizations</b>	Rich Township
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management.</li> <li>• Increase the resilience of (or protect and maintain) infrastructure and critical facilities.</li> <li>• Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change.</li> <li>• Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.</li> <li>• Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
<b>Potential Funding Source</b>	Grants/Local Funds
<b>Estimated Cost</b>	\$685,000
<b>Benefits (loss avoided)</b>	Improved access for first responders through reduction in impassable roadway flooding, increased ability to reduce east/west vehicular congestion



<b>Projected Completion Date</b>	2023
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium Priority
<b>Benefit Analysis (Low, Medium, High)</b>	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.
<b>Cost Analysis (Low, Medium, High)</b>	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
<b>Actual Completion Date</b>	TBD

<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	Mitigation action includes physically connecting Imperial Drive in Richton Park to Polk Avenue in unincorporated Cook County under the jurisdiction of Rich Township. This project is necessary to increase east/west connectivity through the heart of the Village. Currently only one road (Sauk Trail) runs east/west throughout town. Implementation will include upgrading Polk Avenue to meet the current roadway standards of Imperial Drive, and crossing the Butterfield East Branch Tributary.

<b>Mitigation Action and Project Maintenance</b>		
<b>Year</b>	<b>Status</b>	<b>Comments</b>
2019	New	
2020		
2021		
2022		
2023		

<b>Mitigated Hazards</b>	
	<b>All Hazards</b>
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind

X	Snow
X	Blizzard
	Extreme Cold
X	Ice Storms
	Tornado
X	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

**Action R1.4**

<b>Mitigation Action</b>	Well No. 5
<b>Year Initiated</b>	2021
<b>Applicable Jurisdiction</b>	Richton Park
<b>Lead Agency/Organization</b>	Richton Park
<b>Supporting Agencies/Organizations</b>	
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management.</li> <li>• Increase the resilience of (or protect and maintain) infrastructure and critical facilities.</li> <li>• Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change.</li> <li>• Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.</li> <li>• Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
<b>Potential Funding Source</b>	Grants/Loans/Bonds
<b>Estimated Cost</b>	\$4,100,000
<b>Benefits (loss avoided)</b>	Water production west of I-57, Increased water supply/treatment/storage
<b>Projected Completion Date</b>	2030

<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium Priority
<b>Benefit Analysis (Low, Medium, High)</b>	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.
<b>Cost Analysis (Low, Medium, High)</b>	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
<b>Actual Completion Date</b>	TBD

<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	Mitigation action includes design and construction of a new water treatment plant on the west side of Richton Park west of I-57. This project is based on the the current and projected water service requirements for the Village. Additionally, the lack of water service connectivity between the east and west boundary created by I-57 required the addition of water treatment west of I-57.

<b>Mitigation Action and Project Maintenance</b>		
<b>Year</b>	<b>Status</b>	<b>Comments</b>
2019	New	
2020		
2021		
2022		
2023		

<b>Mitigated Hazards</b>	
	<b>All Hazards</b>
	Dam/Levee Failure
X	Drought
	Earthquake
	Flood
X	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard

X	Extreme Cold
	Ice Storms
	Tornado
X	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
X	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

**Action R1.5**

<b>Mitigation Action</b>	I-57 Watermain Crossing/Loop
<b>Year Initiated</b>	2025
<b>Applicable Jurisdiction</b>	Richton Park
<b>Lead Agency/Organization</b>	Richton Park
<b>Supporting Agencies/Organizations</b>	
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management.</li> <li>• Increase the resilience of (or protect and maintain) infrastructure and critical facilities.</li> <li>• Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change.</li> <li>• Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.</li> <li>• Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
<b>Potential Funding Source</b>	Grants/Local Funds
<b>Estimated Cost</b>	\$992,000
<b>Benefits (loss avoided)</b>	Looped watermain will prevent disruption of water service west of I-57 in the event something happens to the sole main under I-57
<b>Projected Completion Date</b>	2027
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium Priority
<b>Benefit Analysis (Low, Medium, High)</b>	High—Project will provide an immediate reduction of risk exposure for life and property.

<b>Cost Analysis (Low, Medium, High)</b>	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
<b>Actual Completion Date</b>	TBD

<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	Mitigation action for this project includes looping water main between the east and west sides of Richton Park separated by I-57. Currently one water main services the entire 1,400 acres in the Village's facility planning area west of I-57. This action will prevent water service disruption in the event of any event creating or requiring a shutdown of the existing water main.

<b>Mitigation Action and Project Maintenance</b>		
<b>Year</b>	<b>Status</b>	<b>Comments</b>
2019	New	
2020		
2021		
2022		
2023		

<b>Mitigated Hazards</b>	
	<b>All Hazards</b>
	Dam/Levee Failure
X	Drought
X	Earthquake
	Flood
X	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
X	Blizzard
X	Extreme Cold
X	Ice Storms
	Tornado
X	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage

	Coastal Erosion
X	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident



### Ongoing Mitigation Actions

Richton Park has no ongoing actions at this time.

### Completed Mitigation Actions

Richton Park has no completed actions at this time.

## Future Needs to Better Understand Risk/Vulnerability

No needs have been identified at this time.

## Additional Comments

No additional comments at this time

## HAZUS-MH Risk Assessment Results

RICHTON PARK EXISTING CONDITIONS	
2010 Population	13,920
Total Assessed Value of Structures and Contents	\$3,764,536,100
Area in 100-Year Floodplain	0 acres
Area in 500-Year Floodplain	0 acres
Number of Critical Facilities	12

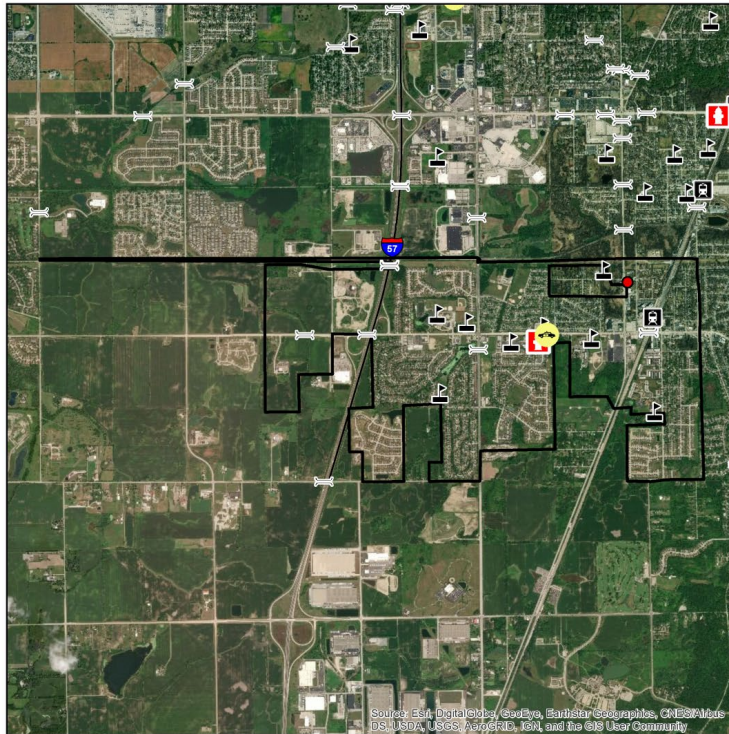
HAZARD EXPOSURE IN RICHTON PARK						
	Number Exposed		Value Exposed to Hazard		Total	% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents		
<b>Dam Failure</b>						
Buffalo Creek	0	0	\$0	\$0	\$0	%
Touhy	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	0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

500-Year	0	0	\$0	\$0	\$0	0.00%
<b>Tornado</b>						
100-Year	-	-	\$302,085,425	\$234,257,960	<b>\$536,343,385</b>	14.25%
500-Year	-	-	\$1,151,209,549	\$947,953,386	<b>\$2,099,162,935</b>	55.76%

<b>ESTIMATED PROPERTY DAMAGE VALUES IN RICHTON PARK</b>				
	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	Total	
<b>Dam Failure</b>				
Buffalo Creek	\$0	\$0	<b>\$0</b>	0.00%
Touhy	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #2	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #3	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #4	\$0	\$0	<b>\$0</b>	0.00%
<b>Earthquake</b>				
1909 Historical Event	\$800,271.01	\$214,852.22	<b>\$1,015,123.23</b>	0.03%
<b>Flood</b>				
10-Year	\$0	\$0	<b>\$0</b>	0.00%
100-Year	\$0	\$0	<b>\$0</b>	0.00%
500-Year	\$0	\$0	<b>\$0</b>	0.00%

<b>Tornado</b>				
100-Year	\$302,085,425	\$234,257,960	<b>\$536,343,385</b>	14.25%
500-Year	\$1,151,209,549	\$947,953,386	<b>\$2,099,162,935</b>	55.76%

# Hazard Mapping

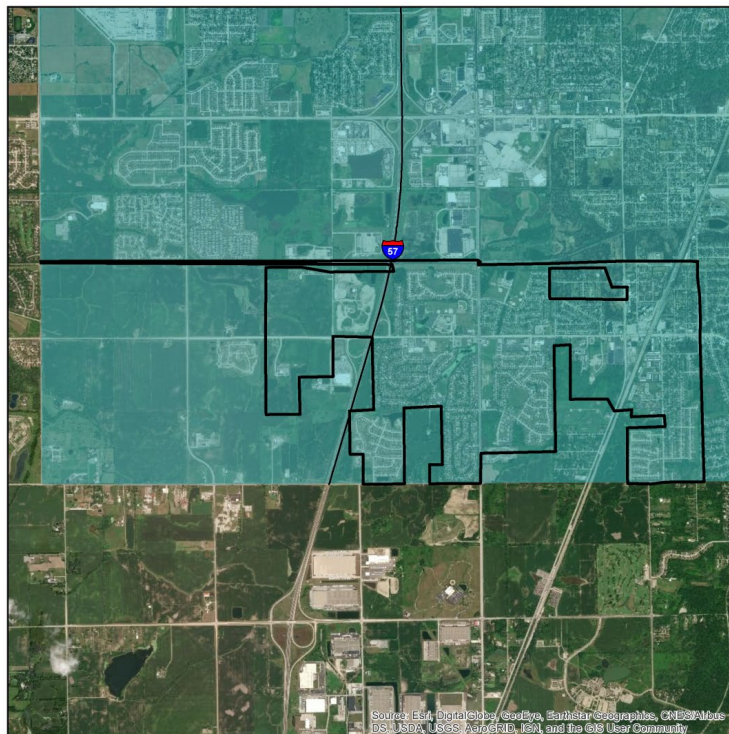
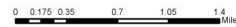


## VILLAGE OF RICHTON PARK

### 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



## VILLAGE OF RICHTON PARK

### PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

- Mercalli Scale, Potential Shaking**
- II-III Weak

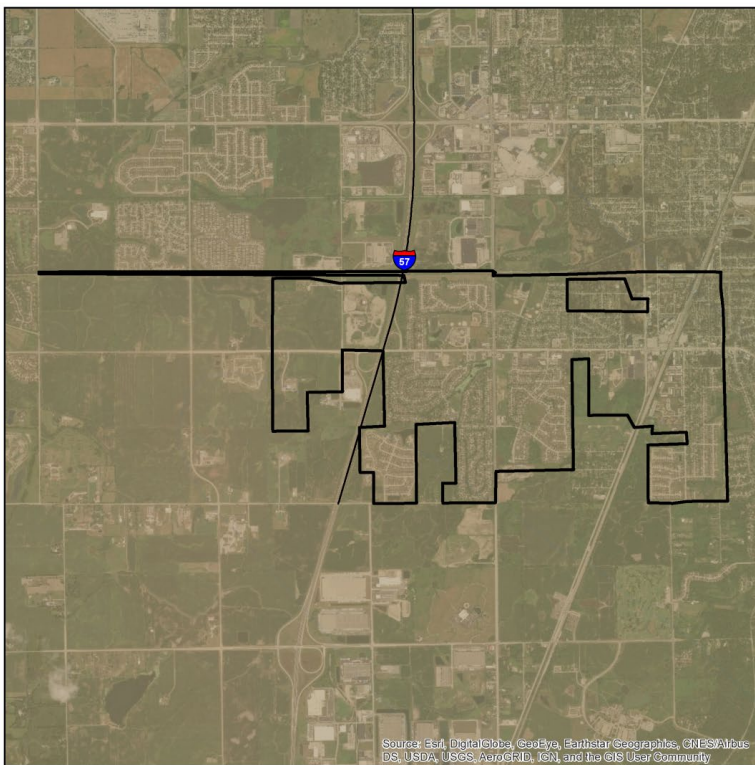
Data provided by the USGS Earthquake Hazards Program and Cook County.

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

### VILLAGE OF RICHTON PARK

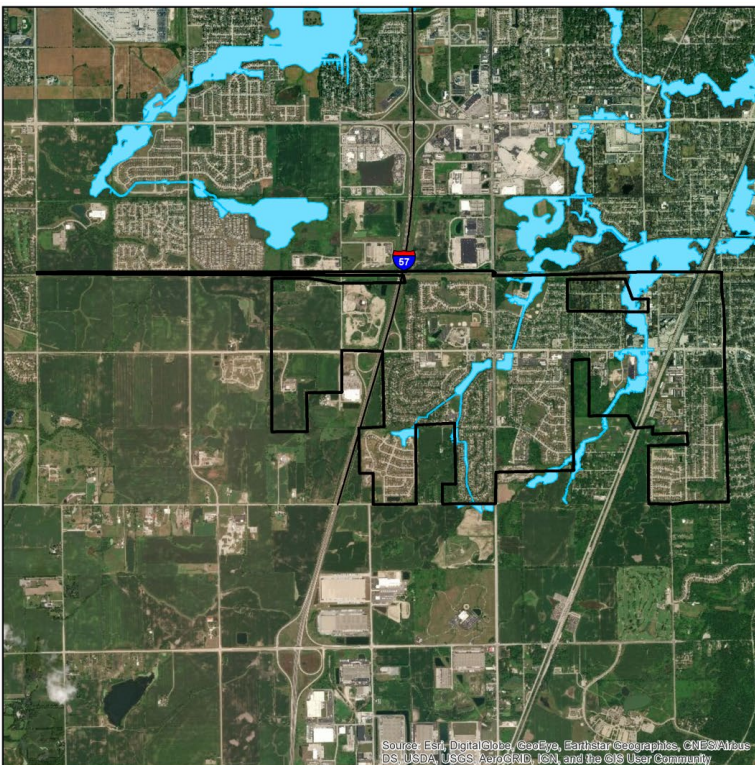
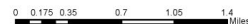
#### NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

- 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 States (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean H. Perrelli (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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### VILLAGE OF RICHTON PARK

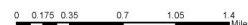
#### COOK COUNTY MWRDGC 100-YEAR INUNDATION AREA

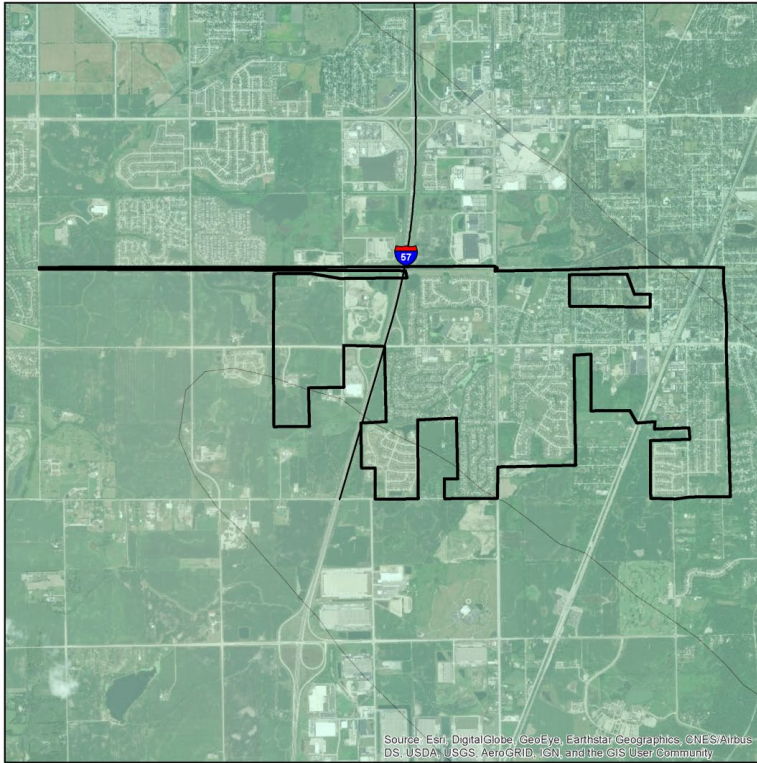
- 100-year Inundation Area

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

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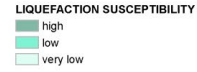
**DISCLAIMER:** The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from <http://www.fema.gov>.





VILLAGE OF RICHTON PARK

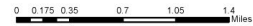
LIQUEFACTION SUSCEPTIBILITY



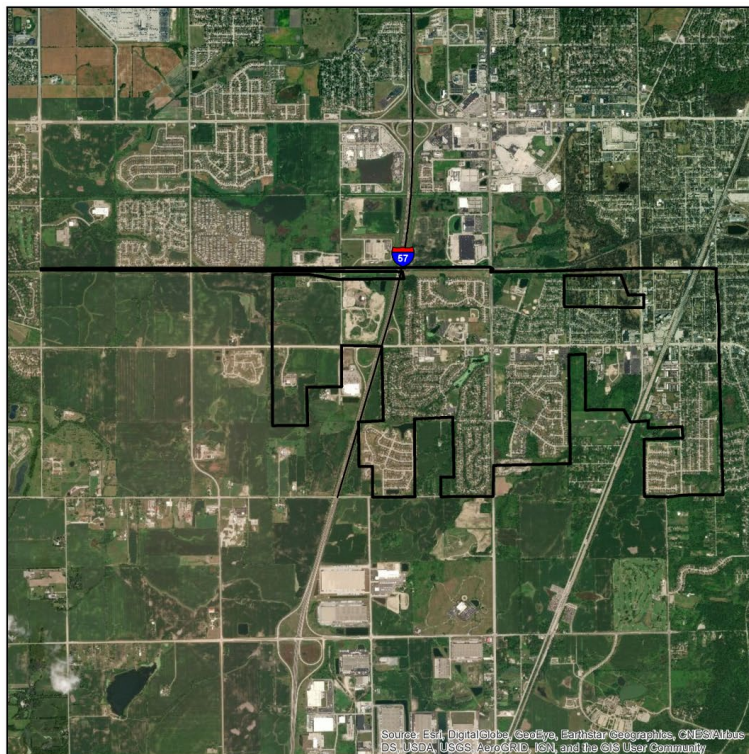
Data provided by the Illinois State Geological Survey and Cook County

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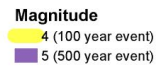


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

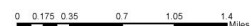


VILLAGE OF RICHTON PARK

100- AND 500- YEAR  
TORNADO EVENTS



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



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