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

Hillside Annex

FINAL

July 2019

Prepared for:



Cook County
Department of Homeland Security and Emergency Management
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Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
Jeff Pilz, Fire Chief	Joe Pisano, Director of Public Works
523 N. Wolf Rd	425 Hillside Ave.
Hillside, IL 60162	Hillside, IL 60162
Telephone: 708-202-3402	Telephone: 708-202-3452
Email Address:	Email Address:
jpilz@hillside-il.org	jpisano@hillside-il.org

Jurisdiction Profile

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

- Date of Incorporation: 1905
- Current Population: The 2018 US Census population estimate for Hillside was 7,958.
- **Population Growth:** The population increased from 1990 to 2000, but has remained the same or slightly declined since 2010.
- Location and Description: Hillside is located in the middle of major transportation arteries in the western suburbs. Suburbs adjacent to Hillside include: Berkeley to the north, Bellwood to the northeast, Westchester to the south, Maywood and Broadview to the east, and Elmhurst to the west. The Village is linked to the metropolitan area and to adjoining states by the I-290, I-294, and I-88. Hillside is 6 miles west of the Chicago city limits and 9 miles from O'Hare International Airport. Hillside has a total land area of 3.18 square miles.
- Brief History: People started settling and buying property in the area in 1833. In 1888 at
 Mannheim and Harrison, Limestone was discovered and this was the beginning of a large
 Quarry. In 1858, German immigrants built the first church at Cermack and Wolf Rd. The Aurora
 and Elgin Railroad came through the area and Hillside had two stations. In 1894 the Chicago
 Archdiocese purchased land and opened Mt. Carmel Cemetery, which has been followed by
 Queen of Heaven and Glen Oak Cemeteries. In 1956 The Hillside Shopping Center opened, which
 was the first large regional shopping center in the Chicago suburban area.
- Climate: The climate of Hillside and the Chicago area is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and humid summers; pleasant autumns; and cold winters. Annual precipitation is average, and reaches its lowest points in the months of January and February, and peaks in the months of May and June. Winter proves quite variable. Seasonal snowfall in the Village has ranged from 9 – 90 inches. The daily average temperature in January at Midway Airport is 24.8 °F (-4.0 °C), and temperatures often stay below freezing for several consecutive days or even weeks in January and February. Temperatures drop to or below 0 °F (-18 °C) on 5.5 nights annually at Midway and 8.2 nights at O'Hare. Spring in the Chicago area is perhaps the areas wettest and unpredictable season. Winter like conditions can persist well into April and even occasionally into May. Thunderstorms are especially prevalent in the spring time as the areas lakeside location makes it a center of conflicts between large volumes of warmer and colder air, triggering many kinds of severe weather. Temperatures vary tremendously in the springtime; March is the month with the greatest span between the record highs and lows. On a typical summer day, humidity is usually moderately high and temperatures ordinarily reach anywhere between 78 and 92 °F (26 and 33 °C). The extreme heat that the Chicago area is capable of experiencing during the height of the summer season can persist into the autumn season. Temperatures have reached 100 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:** Hillside is governed by a Village President and six trustees. This body of Government will assume the responsibility for the adoption and implementation of this plan.

We have a Village Administrator who is directed by the President and Board of Trustees. Hillside is made up of the following departments; Administration, Fire, Police, Emergency Management Agency, Public Works, Street Department and Inspection Services.

• **Development Trends:** Hillside has seen some growth in the re-use of property. We have a new shopping center at the I-290 and Mannheim Area and actively look for developers to come to the village. Housing stock is flat with very little residential redevelopment. The mission of Economic Development in Hillside is to attract and promote the appropriate growth and expansion of retail, office, light industry, distribution, warehouse and related businesses within the Village in order to strengthen the tax base and increase job opportunities for our residents. Hillside also serves the community by creating and fostering successful programs to retain and bolster existing business activities within the Village.

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 & Re	quirements				
Building Code	Yes	No	No	Yes	18-201, 1965
Zonings	Yes	No	No	Yes	80-1, 1/21/80
Subdivisions	Yes	No	Yes	No	Chapter 78, 1/21/80, MWRD also dictates
Stormwater Management	No	No	Yes	Yes	MWRD
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	
Site Plan Review	No	No	No	No	
Public Health and Safety	No	No	Yes	Yes	Cook County Board of Health.
Environmental Protection	No	No	No	No	
Planning Documents					
General or Comprehensive Plan	No	No	No	No	

Is the plan equipped to provide linkage to this mitigation plan?				N/A	
Floodplain or Basin Plan	Yes	No	No	No	Hillside Section 38 Code of Ordinances 7-28-2008
Stormwater Plan	No	No	Yes	No	Regional storm water impacts are managed by MWRD. The Village lies within the Lower Des Plaines Tributaries watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
Capital Improvement Plan	No	No	No	No	
	What	types of capital f	facilities does the p	olan address?	N/A
		How oft	en is the plan revis	ed/updated?	N/A
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	No	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook County 6b program.

Shoreline Management Plan	No	No	No	No	
Response/Recovery Plan	nning				
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County DHSEM
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County DHSEM
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	No	No	Cook County DPH

TABLE: FISCAL CAPABILITY			
Financial Resources	Accessible or Eligible to Use?		
Community Development Block Grants	Yes		
Capital Improvements Project Funding	No		
Authority to Levy Taxes for Specific Purposes	Yes		
User Fees for Water, Sewer, Gas or Electric Service	Yes		
Incur Debt through General Obligation Bonds	Yes		
Incur Debt through Special Tax Bonds	Yes		
Incur Debt through Private Activity Bonds	No		
Withhold Public Expenditures in Hazard-Prone Areas	Can, but don't		
State Sponsored Grant Programs	Yes		
Development Impact Fees for Homebuyers or Developers	Can, but don't		

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 and Inspection Services; Director of Public Works and Village Engineer		
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works and Inspection Services; Director of Public Works and Village Engineer		
Planners or engineers with an understanding of natural hazards	Yes	Public Works; Village Engineer		
Staff with training in benefit/cost analysis	No			
Surveyors	No			
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium		
Scientist familiar with natural hazards in local area	No			
Emergency manager	Yes	Cook County DHSEM		
Grant writers	No			

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE				
What department is responsible for floodplain management in your jurisdiction?	Public Works and Inspection Services			
Who is your jurisdiction's floodplain administrator? (department/position)	Director of Public Works and Village Engineer			
Are any certified floodplain managers on staff in your jurisdiction?	No			
What is the date of adoption of your flood damage prevention ordinance?	7/28/08			
When was the most recent Community Assistance Visit or Community Assistance Contact?	3/24/2004			
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)	No; There exists area prone to regular flooding from local			

	stream or State/County Roadways
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No; Undecided

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

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

TABLE: NATURAL HAZARD EVENTS				
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment	
Severe Storm/Flood	DR-4116	4/26/2013	-	
Severe Winter Storm	DR-1960	1/31/2011	\$68,000.00	
Severe Storm/Flood	DR-1935	7/19/2010	-	
Microburst	-	6/18/2010	-	
Severe Storm/Flood	DR-1800	9/13/2008	-	
Storm/Reservoir Overtop	-	10/2008	-	
Severe Storm/Flood	DR-1729	8/20/2007	-	
Severe Winter Storm	EM-3134	1/1/1999	-	
Flooding	DR-1188	8/16/1997	-	
Flooding	DR-1129	7/17/1996	-	
Severe Storm/Flood	DR-997	4/13/1993	-	
Severe Storm/Flood	DR-798	8/13/1987	-	
Storm/Reservoir Overtop	-	7/1/1987	-	
Severe Storm/Flood	DR-776	9/21/1986	-	
Severe Storm, Flood/Tornado	DR-643	6/30/1981	-	

Severe Winter Storm	-	1/13/1979	-
Severe Storm/Flood	DR-509	4/26/1976	-

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 flooding at the Wolf Rd viaduct and Oak Ridge Ave during heavy rain. The Edgewater retention basin also overflows in prolonged heavy rain. In addition to these serious impacts, mutual aid might be unavailable and emergency response times increase.

Extreme Heat: Extreme heat poses the risk of power outages that the Village's elderly population is particularly vulnerable to. In addition, Village Hall's cooling center maintains very limited capabilities.

Hail: Previously, hail events have resulted in property damage.

High Winds: The Village has experienced power outages and traffic issues during high wind events, jeopardizing the safety of its at-risk populations and knocking down trees. In 2009, Severe thunderstorms moved across northern Illinois during the evening of June 19th producing widespread wind damage and some flash flooding. Trees and large tree limbs were blown down.

Snow: Previously, large snow events have hindered the Village's emergency operations, increasing response times.

Blizzards: The Village has experienced staffing shortages and increased response times in the event of blizzards. Moreover, mutual aid may not be available for this hazard.

Extreme Cold: The Village Hall's warming center is basic.

Ice Storms: Previously, the Village has experienced power outages and traffic issues as a result of ice storms.

Tornado: Resources would be quickly overwhelmed. Mutual aid might be unavailable. Staff may have issues getting to town.

Hazard Risk Ranking

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

	TABLE: HAZARD RISK RANKING						
Rank	Hazard Type	Risk Rating Score (Probability x Impact)					
1	Severe Weather	54					
2	Severe Winter Weather	54					
3	Earthquake	32					
4	Tornado	27					
5	Flood	16					
6	Drought	2					
7	Dam Failure	0					

Mitigation Strategies and Actions

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

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

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

	TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objective s Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projecte d Completion Date (a)		
Action H6.1	—Oakridge C	reek Pipe Re	elocation/Repla	acement through	Palumbo/Beki	ns properties.		
Completed	Flood, Severe Weather	1, 2, 3, 8,	Public Works	\$700,000; High	Bonds, General revenue, Grants	Completed		
Action H6.2	—Provide 38	MG of addit	ional undergro	ound detention.				
Ongoing	Flood, Severe Weather	1, 2, 3, 8, 9	Village of Hillside	\$35,000,000; High	MWRD- Phase 2, Bonds, General Revenue, Grants	2015, Short- term		
Action H6.3	Action H6.3—Expand and deepen existing Fencl Reservoir to north of current location.							
Ongoing	Flood, Severe Weather	1, 2, 3, 8, 9	Village of Hillside	\$12,000,000; High	MWRD- Phase 2, Bonds,	2015, Short-term		

					General Revenue, Grants			
Action H6.4	Action H6.4—Provide new reservoir on NW side of Mount Carmel Cemetery.							
Ongoing	Flood, Severe Weather	1, 2, 3, 8, 9	Village of Hillside	\$3,000,000; High	MWRD- Phase 2, Bonds, General Revenue, Grants	2016, Short-term		
Action H6.5	—Restrict Illii	nois Tollway	storm water fl	ow to Hillside.				
Ongoing	Flood, Severe Weather	1, 2, 3, 8, 9	Village of Hillside	\$10,000; Low	General Fund	2014, Short-term		
Action H6.6	—Construct r	new reservo	ir SW side of Q	ueen of Heaven	Cemetery.			
Ongoing	Flood, Severe Weather	1, 2, 3, 8, 9	Village of Hillside	\$20,000,000; High	MWRD- Phase 2, Bonds, General Revenue, Grants	2016, Short-term		
Action H6.7	—Property b	uyout and e	stablish green s	space.				
Ongoing	Flood, Severe Weather	1, 2, 3, 4, 7, 8, 9	Village of Hillside	\$5,800,000; High	FEMA Grants, Local funds	Long-term		
Action H6.8 simulated di		llage-wide ta	able top drill w	ith all employees	and elected of	ficial to exercise a		
Ongoing	All	1, 5, 8	Fire Department	\$5,000.00; Low	General Fund	2015, Short-term		
Action H6.9	—Village to u	pdate webs	ite informatior	regarding all ha	zard preparedn	ess.		
Ongoing	All	1, 5, 8	Emergency Managemen t Agency (EMA)	Low	General Fund	2015, Short-term		
Action H6.1	0—Review us	se of Reverse	e 911 to better	inform citizens	during emergen	cy related events.		
Completed	All	1, 5, 8	EMA	Low	General Fund	Completed		

Action H6.11 —Maintain and further develop mutual aid agreements with adjoining jurisdictions for cooperative response to hazards and disasters.						
Completed	All	1, 5, 8	EMA, Fire Department, Police Department, Public Works	Low	General Fund	Completed
Action H6.1	2 —Enforce w	ater conser	vation measure	es during high wa	ater demand pe	riods.
Completed	Drought	6, 13	Village of Hillside Public Works	Low	General Fund	Completed
Action H6.1	3—Maintain	political sup	port for county	/-wide hazard mi	tigation and res	sponse programs.
Completed	All	1, 2, 3, 4, 6, 9, 10, 11, 13), Village of Low General Fu		General Fund	Completed
	•	•	er action plan, ncy manageme		is management	plan. This should
Ongoing	All	1, 5, 8	1, 5, 8 EMA Low General Fund 2		2015, Short-term	
Action H6.1	5 —Add one a	additional to	rnado siren to	Hillside.		
Ongoing	Tornado	1, 5, 8	EMA	\$20,000; High	Grants	Long-Term
	e areas to pr			ting, purchase, o nage. Give priorit		tructures in with exposure to
Ongoing	All	7, 13	Village of Hillside	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action H6.1	7 —Continue	to support t	he countywide	actions identifie	ed in this plan.	
Ongoing	All	I All I I Low I General Fund I				Short- and long- term
Action H6.1	8—Actively p	articipate in	the plan main	tenance strategy	identified in th	is plan.
Ongoing	All	3, 4, 6	DHSEM, Village of Low General Fund Hillside		Short-term	

Action H6.19 —Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.						
Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	9, 10, Village of I		General Fund	Long-term
Action H6.20—Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.						
Ongoing	Flooding	4, 6, 9	Village of Hillside	Low	General Fund	Short-term and ongoing
Action H6.2 events	1—Where fea	asible, imple	ment a progra	m to record high	water marks fo	ollowing high-water
Ongoing	Flooding, Severe Weather	3, 6, 9	Village of Hillside	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
	2 —Integrate use or redev		mitigation plan	into other plans	, programs, or r	esources that
Ongoing	All	3, 4, 6, 10, 13	Public Works, Village Engineer	Low	General Fund	Short-term
		•	•	ementation of a	•	_
Completed	All	1, 2, 7	Public Works	High	CIP component of general fund (if implemented)	Completed
Action H6.2	4 —Purchase	and install B	ackup Genera	tors for cooling/v	varming/critical	facilities.
New	Flood, Extreme Heat, High Wind, Snow, Blizzard, Extreme	1, 2, 12	TBD	\$650,000; High	Grants	2020

	Cold, Ice Storms, Tornado, Widesprea d Power Outage					
Action H6.2	5 —Purchase	property ea	st of Fire Statio	on for parking and	d egress during	flooding events
New	Flood	1, 2	TBD	\$310,000; Hig h	Grants	2021
Action H6.2	6 —Install Wa	rning signag	ge for flooded i	oad.		
New	Flood	6, 13	Public Works	\$8,000; Medium	Grants, Local Funds	2021
Action H6.2	7 —Construct	30-40 MG s	urface water r	eservoir on vacai	nt land I-290 an	d Wolf Road.
New	Flood	3, 12, 13	Village of Hillside	\$18,000,000; High	Grants/Local Funds	2019
Action H6.28—Construct parallel in pipe storage for stormwater at four intersections prone to flooding and to alleviate rear yard flooding.						
New	Flood	3, 7, 13	Village of Hillside	\$80,000; High	Grants/Local Funds	2019
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	5	High	High	Yes	Yes	No	High	
2	5	High	High	Yes	Yes	No	High	
3	5	High	High	Yes	Yes	No	Medium	
4	5	High	High	Yes	Yes	No	Medium	
5	5	Medium	Low	Yes	No	Yes	Low	
6	5	High	High	Yes	No	No	Medium	

7	7	High	High	Yes	Yes	No	High
8	3	High	Low	Yes	Yes	Yes	High
9	3	Medium	Low	Yes	No	Yes	Medium
10	3	Medium	Low	Yes	No	Yes	Low
11	3	High	Low	Yes	No	Yes	High
12	2	High	Low	Yes	No	Yes	Medium
13	9	High	Low	Yes	No	Yes	High
14	3	Medium	Low	Yes	No	Yes	Medium
15	3	High	Low	Yes	Yes	No	Medium
16	2	High	High	Yes	Yes	No	Medium
17	13	Medium	Low	Yes	No	Yes	High
18	3	Medium	Low	Yes	Yes	Yes	High
19	9	Medium	Low	Yes	No	Yes	Medium
20	3	Medium	Low	Yes	No	Yes	High
21	3	Medium	Medium	Yes	Yes	No	Medium
22	5	Medium	Low	Yes	No	Yes	High
23	3	High	High	Yes	No	No	Medium
24	3	High	High	Yes	Yes	Unknown	High
25	2	Medium	High	No	Yes	Unknown	Medium
26	2	Medium	Medium	Yes	Yes	Unknown	Medium
27	3	High	High	Yes	Yes	Unknown	High
28	3	High	High	Yes	Yes	Unknown	High
a. See Cha	a. See Chapter 1 for explanation of priorities.						

New Mitigation Actions

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

Mitigation Action	Purchase and install Backup Generators for
Year Initiated	cooling/warming/critical facilities 2019
Applicable Jurisdiction	Village of Hillside/Hillside Fire Department
	Village of Hillside/Hillside Fire Department
Lead Agency/Organization	
Applicable Goal	 Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events. Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.
Applicable Objective	 Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. Increase the resilience of (or protect and maintain) infrastructure and critical facilities. Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.
Potential Funding Source	Grants
Estimated Cost	\$650,000
Benefits (loss avoided)	The Village Hall and Fire Station are lacking sufficient backup generators. The Village Hall is also used as a cooling/warming center. Both critical facilities have old and under powered generators.
Projected Completion Date	2020
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.
Cost Analysis (Low, Medium, High)	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).

Actual Completion Date	
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Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:

As stated above, the Village Hall and Fire Station are critical facilities. The Village Hall also serves as the 9-1-1 communications center, police station, and cooling/warming center. The current backup generator cannot handle the power requirements for everything, only a small portion. The fire station has a 50 year old generator that was never upgraded when station was remodeled, doubling its size. It will only power a small portion of the building. This building can also serve as a warming center if needed.

It is imperative the current units at both facilities are replaced in order to better provide for our residents, and allow for emergency operations to not suffer.

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

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

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

parking and egress during flooding events
Applicable Jurisdiction Lead Agency/Organization Supporting Agencies/Organizations Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events Eliminate or minimize disruption of loca government operations caused by natural hazards through all phases of emergency management. Increase the resilience of (or protect and maintain) infrastructure and critical facilities. Potential Funding Source Estimated Cost Salo,000 Allow safer parking/egress during flooding events.
Lead Agency/Organization Supporting Agencies/Organizations Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. Increase the resilience of (or protect and maintain) infrastructure and critical facilities. Potential Funding Source Estimated Cost Salo,000 Allow safer parking/egress during flooding events.
Supporting Agencies/Organizations Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. Increase the resilience of (or protect and maintain) infrastructure and critical facilities. Potential Funding Source Estimated Cost \$310,000 Allow safer parking/egress during flooding events.
Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. Increase the resilience of (or protect and maintain) infrastructure and critical facilities. Potential Funding Source Estimated Cost Salo,000 Allow safer parking/egress during flooding events.
Applicable Objective Applicable Objective Applicable Objective Applicable Objective Increase the resilience of (or protect and maintain) infrastructure and critica facilities. Potential Funding Source Estimated Cost Salo,000 Allow safer parking/egress during flooding events.
Estimated Cost \$310,000 Benefits (loss avoided) Allow safer parking/egress during flooding events.
Benefits (loss avoided) Allow safer parking/egress during flooding events.
events.
Projected Completion Date 2021
Priority and Level of Importance (Low, Medium, High) Medium Priority
Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High) High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
Actual Completion Date

Recommended Mitigation Action/Implementation Plan and Project Description

Plan and Project Description:

The Village of Hillside is looking into a property acquisition for the house directly to the east of the Fire Station. During flooding events, flooding on the Action/Implementation Washington street side restricts the ambulance bay doors. Currently, the ambulances and station vehicles have to be relocated prior to the water rising, to higher ground. This usually means parking on the street further east, or parking in front of the Wolf Road side garage doors, blocking the fire engine bay doors.

It is the Villages intention to purchase the property to the east in order to make a larger parking lot, in order to keep the emergency vehicles on higher ground and off the street. This property has a higher elevation than the area in front of the ambulance bay doors. The Fire station property is located on a corner parcel and landlocked. The estimated costs are for: property purchase, demolition, and construction of new parking lot.

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

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

Mitigation Action	Install Warning signage for flooded road	
Year Initiated	2019	
Applicable Jurisdiction	Village Hall/Public Works	
Lead Agency/Organization	Public Works	
Supporting Agencies/Organizations		
Applicable Goal	 Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events. Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards. Promote public understanding of and support for hazard mitigation. 	
Applicable Objective	 Use the best available data, science and technologies to educate the public and to improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types and community development patterns, and the measures needed to protect life safety. Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes. 	
Potential Funding Source	Grants/Local Funds	
Estimated Cost	\$8,000	
Benefits (loss avoided)	Create a safer roadway for motorists during flooding events	
Projected Completion Date	2021	
Priority and Level of Importance (Low, Medium, High)		
Benefit Analysis (Low, Medium, High)	Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.	
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a reapportionment of the budget or a budget	

	amendment, or the cost of the project would have to be spread over multiple years.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:

The Village of Hillside and Public Works department have determined that Wolf Road (on either side of the viaduct) needs better warning signage, specifically during flooding events. Each large rain event has caused the Wolf Road viaduct to flood making it impassable for any vehicle. During each event, motorists have driven in and become stranded. This impacts our residents and the emergency services workers who now risk their lives to rescue the stranded individuals.

Barrier or flashing warning devices would help mitigate this issue. This is a Cook County owned road. Previous requests for signage have gone unanswered. The fire station is located at this intersection and could benefit from new flashing warning signs, as well as a warning traffic light.

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

	Mitigated Hazards			
	All Hazards			
	Dam/Levee Failure			
	Drought			
	Earthquake			
Х	Flood			
	Extreme Heat			
	Lightning			
	Hail			
	Fog			
	High Wind			
	Snow			
	Blizzard			
	Extreme Cold			
	Ice Storms			
	Tornado			

	Epidemic or pandemic	
	Nuclear Power Plant Incident	
	Widespread Power Outage	
	Coastal Erosion	
	Secondary Impacts from Mass Influx of Evacuees	
_	Hazardous Materials Incident	

Mitigation Action	Construct 30-40 MG surface water reservoir ovacant land I-290 and Wolf Road	
Year Initiated	2019	
Applicable Jurisdiction Village of Hillside, MWRD		
Lead Agency/Organization	Village of Hillside	
Supporting Agencies/Organizations	MWRD	
Applicable Goal	 Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events. Develop, promote, and integrate mitigation action plans. 	
Applicable Objective	 Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area. Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes. 	
Potential Funding Source	Grants/Local Funding	
Estimated Cost	\$18,000,000	
Benefits (loss avoided)	Resolve down stream reservoir from over- topping and reducing/eliminating arterial roadway flooding that limits travel	
Projected Completion Date	2025	
Priority and Level of Importance (Low, Medium, High)	High Priority	
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.	
Cost Analysis (Low, Medium, High)	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).	

Actual Completion Date	
------------------------	--

Recommended Mitigation Action/Implementation Plan and Project Description

Plan and Project Description:

Construct a new 30-40 MG open air detention facility located on vacant land Action/Implementation near I-290 and Wolf Road. Re-route upstream storm water flow from Fencl Reservoir to new reservoir to prevent over-topping of existing reservoir. Additional areas where street flooding is prevalent will be looked at to potentially be routed to new reservoir.

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

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

Mitigation Action	Construct parallel in pipe storage for storm water at four intersections prone to flooding		
	and to alleviate rear yard flooding.		
Year Initiated	2019		
Applicable Jurisdiction	Village of Hillside		
Lead Agency/Organization	Village of Hillside		
Supporting Agencies/Organizations	MWRD		
Applicable Goal	 Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events. Develop, promote, and integrate mitigation action plans. Promote public understanding of and support for hazard mitigation. 		
Applicable Objective	 Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetitively damaged. Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes. 		
Potential Funding Source	Grants/Local Funds		
Estimated Cost	\$800,000		
Benefits (loss avoided)	Reduce/eliminate local roadway flooding and improve emergency response time through affected areas		
Projected Completion Date	2019		
Priority and Level of Importance (Low, Medium, High)	High Priority		
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.		

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

Recommended Mitigation Action/Implementation Plan and Project Description

Plan and Project Description:

Action/Implementation Construct parallel storm water system to allow for in pipe storage of storm water. Over-sized piping will detain water that ponds on roadways and floods rear yards causing roadways to be impassable and causing property damage.

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

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

Hazardous Materials Incident

Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.2 Provide 38 MG of additional underground detention.			
Status Description: No action taken		х	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.3	Expand and deepen existing Fencl Reservoir to north of current location.		
Status Description: No	No action taken	X	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.4 Provide new reservoir on NW side of Mount Carmel Cemetery.			
Status Description: No	' I Not started: tentative design.		
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.5	Restrict Illinois Tollway storm water flow to Hillside.		
Status Description: No Tollway has mitigated some during current expansion.		Х	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.6	Construct new reservoir SW side of Queen of Heaven Cemetery.		
Status Description: No	No action taken		
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.7	Property buyout and establish green space.		
Status Description: Yes	We have purchased properties and razed structures-40 percent complete	0	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

	TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)		
# H-6.8	Conduct village-wide table top drill with all employees and elected official to exercise a simulated disaster.			
Status Description: No	IAP developed by fire department, disseminated and practiced among department			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.9	Village to update website information regarding all hazard preparedness.		
Status Description: Yes	Description: Restructuring the website 50 percent complete		
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.14	Develop a post-disaster action plan, including a debris management plan. This should be incorporated into existing emergency management plans.		
Status Description: No	No action taken	Х	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Act	ion Item Description		Status (X, O, C, R, N)
# H-6.15	Add one additional tornac	do siren to Hillside.		
Status Description: No	Not started			Х
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-6.16	Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.	
Status Description: Yes	40 percent completed	0
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N		Action Item Description	Status (X, O, C, R, N)
# H-6.17	Continue to sup	pport the countywide actions identified in this plan.	
Status Description: No			Х
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.18	Actively participate in the plan maintenance strategy identified in this plan.		
Status Description: No		х	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.19	Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.		
Status Description: No		Х	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-6.20	Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.	
Status Description: No		х
C =	Completion status legend: N = New O = Action Ongoing toward Completion Project Completed R = Want Removed from Annex X = No Action Taken	•

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# H-6.21	Where feasible, implement a program to record high water marks following high-water events.		
Status Description: No		х	
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken			

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# H-6.22 Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.					
Status Description: Yes		х			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

Completed Mitigation Actions

The following section represents completed mitigation actions, and serves as an archive of identified and completed projects.

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# H-6.1	Oakridge Creek Pipe Relocation/Replacement through Palumbo/Bekins properties.				
Status Description: Yes	rescription: 100% complete				
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# H-6.10	Review use of Reverse 911 to better inform citizens during emergency related events.				
Status Description: Yes	Description: Project completed				
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description			
# H-6.11 Maintain and further develop mutual aid agreements with adjoining jurisdictions for cooperative response to hazards and disasters.				
Status Description: Yes	Description: Project completed			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# H-6.12	Enforce water conservation measures during high water demand periods.				
Status Description: Yes	Enforced by local ordinance	С			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description				
# H-6.13	Maintain political support for county-wide hazard mitigation and response programs.				
Status Description: Yes	Yes	С			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description			
# H-6.23 Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village's regulatory, financial and technical capability to implement mitigation actions.				
Status Description: Yes	Description: 100 percent complete			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken				

Future Needs to Better Understand Risk/Vulnerability

No needs have been identified at this time.

Additional Comments

No additional comments at this time

HAZUS-MH Risk Assessment Results

HILLSIDE EXISTING CONDITIONS				
2010 Population	8,157			
Total Assessed Value of Structures and Contents	\$2,568,337,606			
Area in 100-Year Floodplain	8.55 acres			
Area in 500-Year Floodplain	8.55 acres			
Number of Critical Facilities	43			

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

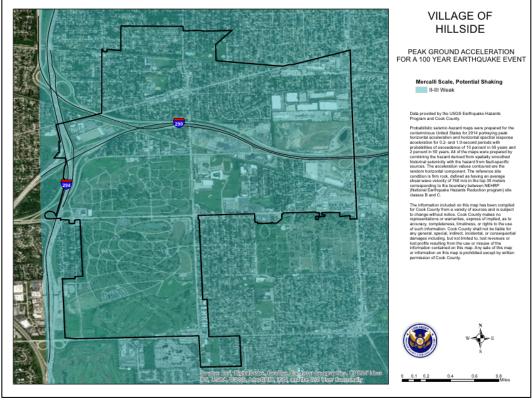
500-Year	0	0	\$0	\$0	\$0	0.0%
Tornado						
100-Year	_	_	\$419,303,738	\$395,371,793	\$814,675,531	31.72%
500-Year	_	_	\$729,284,988	\$647,101,147	\$1,376,386,135	53.59%

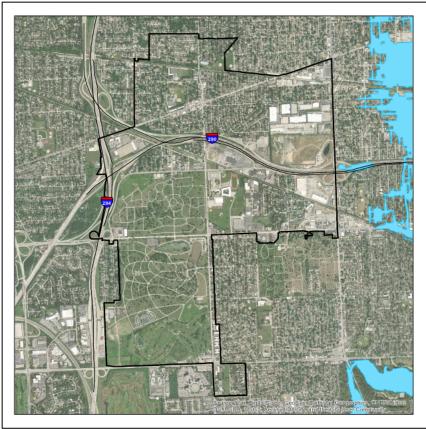
ESTIMATED PROPERTY DAMAGE VALUES IN HILLSIDE					
	Estim	% of Total Assessed Value			
	Building	Contents	Total	Damaged	
Dam Failure					
Buffalo Creek	\$0	\$0	\$0	0.00%	
U. Salt Cr. #2	\$0	\$0	\$0	0.00%	
Touhy	\$0	\$0	\$0	0.00%	
U. Salt Cr. #3	\$0	\$0	\$0	0.00%	
U. Salt Cr. #4	\$0	\$0	\$0	0.00%	
Earthquake					
1909 Historical Event	\$0	\$0	\$23,575,844	0.92%	
Flood					
10-Year	\$0	\$0	\$0	0.00%	
100-Year	\$0	\$0	\$0	0.00%	
500-Year	\$0	\$0	\$0	0.00%	

Tornado				
100-Year	\$41,930,374	\$39,537,179	\$81,467,553	3.17%
500-Year	\$106,475,608	\$94,476,767	\$200,952,376	7.82%

Hazard Mapping







VILLAGE OF HILLSIDE

COOK COUNTY MWRDGC 100-YEAR INUNDATION AREA

100-year Inundation Area

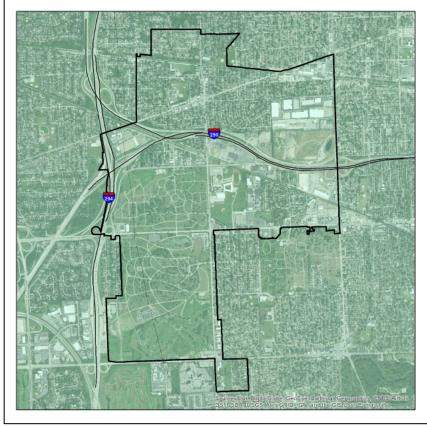
MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

The information included on this map has been compiled for Cook County from a variety of sources and is subject to change without notice. Cook County makes no representations or warranties, express of implied, as to accuracy, completeness, timeliness, or rights to the use of such information. Cook County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of Cook County.

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







VILLAGE OF HILLSIDE

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

low

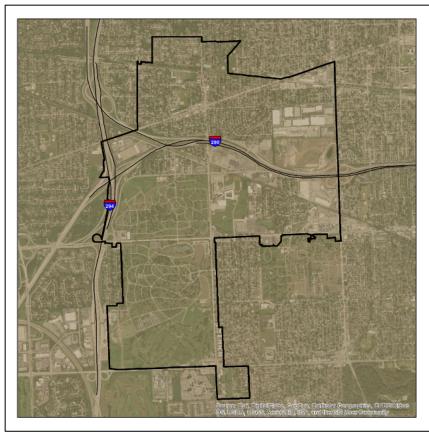
Data provided by the Illinois State Geological Survey and Cook County.

Data provided by the Bitolo State Cardopcal Survey and Cook Contry.

The Certiful United States Earthquise Consortium (CUSEC) State Carbojats produced a regional Soil Site Customers and Customers an







VILLAGE OF HILLSIDE

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.

Dails provided by the Batton State Consognal Survey and Cook County.

The Certain United States Earliquise Consortium (CUSEC) State Contegins produced a regional Soil Site CUSEC, State Contegins produced a regional Soil Site CUSEC, State Contegins produced a regional Soil State Custom Contegins and Contegins of Contegins and Contegins of Contegins and Contegins of Contegins and Contegins of Contegins and Martinia in the Eastern and Certain United State (Sast of 102 Segrees West Certain United State (Sast of Sast of Certain Certain Contegins of Sast of Certain Certain Contegins of Sast of Certain Certain Contegins of Sast of Certain Cer

bedrock which influences much of the amplification.

The information included on this range has been complete for Cook County from a winkly of isoverse and is subject for Cook County from a winkly of isoverse and is subject to change without notice. Cook County raises no representations or warrantess, express of implied, as to accuracy, completeness, finateness, or rights to the use of such information. Cook County shall not be state for any general, special, indirect, indirectly, or consequential, or consequential, or consequential, or consequentially of the subject of the state of







VILLAGE OF HILLSIDE

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.

