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

Glencoe 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
Kenneth Paczosa, Glencoe Public Safety	Cary Lewandowski, Director of Public Safety
Lieutenant	675 Village Ct.
675 Village Ct.	Glencoe, Illinois 60022
Glencoe, Illinois 60022	Telephone: 847-835-4112 Email Address:
Telephone: 847-461-1125 Email Address:	clewandowski@villageofglencoe.org
kpaczosa@villageofglencoe.org	

Jurisdiction Profile

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

- Date of Incorporation: 1869
- Current Population: The 2018 US Census population estimate for Glencoe is 8,869.
- Population Growth: The population in the Village of Glencoe has remained fairly constant. Over the last 20 years, the population has increased and decreased slightly, but appears to be on a slightly upward trend.
- Location and Description: Glencoe is located in Cook County, 23 miles directly north of the Chicago Loop. According to the 2010 census, the Village has a total land area of 3.72 square miles. Glencoe is situated next to Lake Michigan. Its bluffs overlook the lake, cut by several ravines. It is separated from adjoining suburbs on the north and west by the Cook County Forest Preserve natural forest area. Three golf clubs also buffer it, with the private Lake Shore Country Club on the north, the public Glencoe Golf Club (operated by the Village of Glencoe) on the northwest, and the private Skokie Country Club on the west. The Village is surrounded on three sides by the communities of: Highland Park on the north, Northbrook on the west, and Winnetka to the south. The Skokie Lagoons are located in the forest preserves to the immediate west of the Village. The highest point of elevation in Glencoe is 690 feet above sea level along Green Bay Road in the northern part of the Village.
- Brief History: Glencoe was first incorporated in 1869 but was settled as early as 1839. It was originally inhabited by the Potawatomi Indians. When it was first settled the area was called Taylorsport after Anson Taylor, the first landowner. Early settlers followed Taylor to establish logging and charcoal businesses. In 1855, the rail line from Chicago to Waukegan made its first trip through what is now Glencoe. In 1867 real estate speculation began in earnest; a total of 26 houses existed in the Village when Glencoe was incorporated. From the 1880s through the 1920s, public improvements began as the Village started to take shape. Roads were graveled and a business district was formed. By 1919 storm sewers were installed and organized snow plowing began. The Village Hall opened in 1893 and a water pumping station was built in 1938. The Village was the first in the State to adopt the council-manager form of government in 1914. Glencoe's population grew steadily during the first half of the 20th century. In the 1950s, following WWII, the Village's population grew significantly from 7,000 to 10,000. Glencoe was originally developed as, and continues to be, a primarily residential community. Consequently there is limited commercial development within its boundaries, except for its downtown district, car dealerships on the west boundary, and a small shopping center at its southern boundary.
- Climate: Glencoe's average yearly high temperature is 82 degrees and the average low temperature is 13 degrees. Average yearly rainfall is 32 inches and average snowfall is 24 inches. The average number of days with any measurable precipitation is 110 and average days of sun exposure are 191.
- Governing Body Format: Glencoe has a Council-Manager form of government. The Village President and six other members of the Board of Trustees are elected for four years and serve without pay. The job of the Village Board is to levy taxes, appoint certain officials, establish policy, administer Village finances, oversee Village services, supervise Village planning, and handle legal matters. The Village Board will assume the responsibility for the adoption and implementation of this plan. There are five standing committees of the Board: Finance, Social Services, Law, Public Works and Golf. Each committee is chaired by a Trustee. Ad hoc

- committees are established as needed. The function of these committees is to recommend policy to the Village Board. The village operates 4 departments including the Finance Department, Village Manager's Office, Public Safety Department, and the Public Works Department.
- Development Trends: Over the last 20 years the Village has experienced increasing redevelopment/reconstruction of existing residential properties. During this time the Village has focused on improvements to its infrastructure including: streets, sidewalks, curbs, and sewer & water systems. The business district has had brick sidewalks, natural stone planter boxes, and period street lights installed. Many public buildings have been or are being remodeled which include: the public schools, Village Hall, the Glencoe Library, Park District Community Center, and a refrigerated outdoor ice rink. The private golf clubs (Lake Shore Country Club and Skokie Country Club) have seen major remodeling, additions, and reconstruction. Future plans include a new clubhouse at the Glencoe Golf Club and renovation or construction of a new water treatment plant. Additionally there is a current strategic plan that goes through 2021, which focuses on six strategic priorities - financial sustainability, infrastructure replacement, community engagement, commercial vitality, operational effectiveness and organizational development. Glencoe also developed a Downtown Plan in 2016 and it was prepared over a three-year period of engagement between the Plan Commission and the community, a planning process referred to as the Downtown TuneUp. The name "TuneUp" was chosen deliberately in recognition that Downtown Glencoe isn't broken, but in need of updating to address current and future needs.

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.

TABLE: LEGAL AND REGULATORY CAPABILITY					
TABLE: LEGAL AND REGULA	TORY CAP	ABILITY			
Codos Ordinansos & Bogui	Authority	State or Federal Prohibition	Jurisdictional	State Mandated	Comments
Codes, Ordinances & Requi	rements				2000 1 1 1 1 1 1 1 1
Building Code	Yes	No	No	Yes	2009 International Building and 2009 International Residential Code Municipal Code 2013-21- 3351 Adopted: 2013
Zonings	Yes	No	No	Yes	65 ILCS 5/) Illinois Municipal Code. Municipal Code 2013-10-3340 Adopted: 2013
Subdivisions	Yes	No	No	No	Municipal Code 2005-08- 3128 Adopted: 2005
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Municipal Code 9-87 adopted: 2008
Post Disaster Recovery	Yes	No	No	No	Glencoe Public Safety All Hazards Plan Draft 2012
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	Yes	No	No	No	Comprehensive Plan
Site Plan Review	Yes	No	No	No	Municipal Code 7-504 adopted: 2000
Public Health and Safety	Yes	No	Yes	Yes	Cook County Board of Health. Municipal Code 89- 11-1804 adopted: 1989
Environmental Protection	Yes	No	No	No	NPDES Adopted 2002
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	Village of Glencoe 1996

Is the plan equipped to provi	No				
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	Yes	No	Regional stormwater impacts are managed by MWRD. The Village lies within the North Branch Chicago River watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
Capital Improvement Plan	Yes	No	No	No	
Do not have stormwater mai	nagement	plan but do h	ave CIP that i	s updated o	on an annual basis.
Habitat Conservation Plan	Yes	No	No	No	Audubon International
Economic Development Plan	No	No	Yes	Yes	
Shoreline Management Plan	Yes	No	No	No	Comprehensive Plan
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	No	Yes	Yes	Glencoe Public Safety All Hazards Plan Draft, Annex A2, 2012

Threat and Hazard Identification and Risk Assessment	Yes	No	Yes	No	Glencoe Public Safety 2004
Terrorism Plan	Yes	No	Yes	Yes	Glencoe Public Safety All Hazards Plan Draft, Annex L, 2012
Post-Disaster Recovery Plan	Yes	No	Yes	Yes	Glencoe Public Safety All Hazards Plan Draft: Annex E, D, F
Continuity of Operations Plan	Yes	No	Yes	No	Glencoe Public Safety All Hazards Plan Draft, IEMA 301.230b4, P. 33
Public Health Plans	Yes	No	Yes	No	Glencoe Public Safety All Hazards Plan Draft: Annex H, 2012

TABLE: FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	Yes

Authority to Levy Taxes for Specific Purposes	No
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	Yes
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY				
Staff/Personnel Resources	Available?	Department/Agency/Position		
Planners or engineers with knowledge of land development and land management practices	Yes	Public Works/ Engineering/ Village Engineer		
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works/ Building & Zoning/ Building & Zoning Administrator		
Planners or engineers with an understanding of natural hazards	Yes	Public Works/ Engineering/ Village Engineer		
Staff with training in benefit/cost analysis	Yes	Manager's Office/ Administration/ Village Manager		
Surveyors	Yes	Public Works/ Engineering/ Sub Contractor		
Personnel skilled or trained in GIS applications	Yes	Public Works/ MGP Inc./ GIS Coordinator		
Scientist familiar with natural hazards in local area	No			
Emergency manager	Yes	Public Safety/ Emergency Coordinator		
Grant writers	Yes	Public Safety		

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE				
What department is responsible for floodplain management in your jurisdiction?	Public works			
Who is your jurisdiction's floodplain administrator? (department/position)	Public works/Director			
Are any certified floodplain managers on staff in your jurisdiction?	No			
What is the date of adoption of your flood damage prevention ordinance?	2008			
When was the most recent Community Assistance Visit or Community Assistance Contact?	07/25/2007			
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No			
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes			
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No			
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No			

TABLE: COMMUNITY CLASSIFICATIONS				
	Participating?	Classification	Date Classified	
Community Rating System	No	N/A	N/A	
Building Code Effectiveness Grading Schedule	Yes	Class 7 residential; Class 6 Commercial	06/2011	
Public Protection (ISO Rating)	Yes	3	2012	
StormReady	Yes	Gold (Countywide)	2014	
Tree City USA	Yes	Recognized	2012	

Jurisdiction-Specific Natural Hazard Event History

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

The Natural Hazard Events Table lists all past occurrences of natural hazards within the jurisdiction.

- Repetitive flood loss records are as follows: Number of FEMA-Identified Repetitive Loss Properties: 0
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

TABLE: NATURAL H	TABLE: NATURAL HAZARD EVENTS					
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment			
Flooding	-	7/23/2011	-			
Severe Storm/ Thunder Storm- Wind	-	7/22/2011	-			
Winter Weather	DR-1960	2/1/2011	\$26,432 (cost related to snow removal operations)			
Wind	-	3/10/2009	-			
Flooding	-	12/29/2008	-			
Flooding	DR-1800	9/13/2008	-			
Severe Storm/ Thunder Storm- Wind	DR-1729	8/20/2007	-			
Severe Storm/ Thunder Storm- Wind	-	10/2/2006	-			
Wind	-	5/11/2003	-			
Flooding	DR-798	8/14/1987	-			
Flooding	DR-776	9/26/1986	-			
Winter Weather	-	1/1/1979	-			

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: We have experienced flooding at Hazel Ave, the underpass, Skokie Heights, and parts of Sheridan Road.

Extreme Heat: Elderly residents and patrons at Glencoe Beach are vulnerable to extreme heat.

Extreme Cold: Similar to extreme heat, elderly residents are vulnerable to extreme cold.

Wind/Tornado: While no tornados have touched down, severe wind events have impacted the area.

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			
1	Severe Winter Weather	54			
2	Tornado	33			
3	Earthquake	32			
4	Flood	18			
4	Drought	6			
5	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: HA	ABLE: HAZARD MITIGATION ACTION PLAN MATRIX					
Status	Hazards Mitigated	Objectives Met	Lead Agencies		Sources of Funding	Timeline/Projected Completion Date (a)
Actions G1.1—Forestry Department routine tree trimming/removal operations.						
Ongoing	Severe Weather, Severe Winter Weather, Tornado	1, 2	Public Works	\$150,000	General Fund	Annual
Actions G1	Actions G1.2—Develop/Maintain Stormwater CIP.					
Ongoing	Flooding	1, 2, 3, 9	Public Works	\$4.8 million	Bonds	Ongoing, Short- term
Actions G1	3—Continue St	reet Departmer	it routine street	sweeping	operations.	
Ongoing	Flooding	1, 2, 9	Public Works	\$80,000	General Fund	Annual
Actions G1	. .4 —Stormwate	r retention on n	ew residential d	evelopmer	ıt.	
Ongoing	Flooding	1, 2, 3, 4, 9, 10	Public Works	\$10,000	Impact Fees	Ongoing
Actions G1	5—Residential	Guide to Storm	water Managem	ent.		
Ongoing	Flooding	1, 2, 3, 4, 6, 8, 9, 13	Public Works	\$1,000	General Fund	Ongoing, Short- term
Actions G1	6—Erosion con	trol on natural l	and stormwate	passages	(ravines & strea	ıms).
Ongoing	Flooding	1, 2, 3, 9	Public Works	\$20,000	General Fund	Ongoing, Short- term
Actions G1	. .7 —Village Web	site as notificat	ion and informa	tion tool.		
Ongoing	All Hazards	5, 6	Admin	\$2,500	General Fund	Ongoing

Actions G1.8—Tornado Warning Siren. Ongoing Tornado, Severe Weather						
Severe Weather Actions G1.9—Annual All Hazard Plan exercise. Completed All Hazard						
WeatherWeatherGeneral FundCompletedActions G1.9—Annual All Hazard Plan exercise.Completed All Hazard1, 2, 3, 5, 6, 8PS\$500General FundCompletedActions G1.10—Mass Notification Systems (Code Red and Everbridge).Completed All Hazards5, 6PS\$7,500General FundCompletedActions G1.11—Public Asset vulnerability assessments.Completed All Hazards1, 2, 3, 4, 5, 6PS\$2,500General FundCompletedActions G1.12—Com Ed System Hardening Actions.OngoingAll1, 2, 5, 6Com Ed\$0N/AOngoing						
Completed All Hazard 1, 2, 3, 5, 6, 8 PS \$500 General Fund Completed Actions G1.10—Mass Notification Systems (Code Red and Everbridge). Completed All Hazards 5, 6 PS \$7,500 General Fund Completed Actions G1.11—Public Asset vulnerability assessments. Completed All Hazards 1, 2, 3, 4, 5, 6 PS \$2,500 General Fund Completed Actions G1.12—Com Ed System Hardening Actions. Ongoing All 1, 2, 5, 6 Com Ed \$0 N/A Ongoing						
Actions G1.10—Mass Notification Systems (Code Red and Everbridge). Completed All Hazards 5, 6 PS \$7,500 General Fund Completed Actions G1.11—Public Asset vulnerability assessments. Completed All Hazards 1, 2, 3, 4, 5, 6 PS \$2,500 General Fund Completed Actions G1.12—Com Ed System Hardening Actions. Ongoing All 1, 2, 5, 6 Com Ed \$0 N/A Ongoing						
Completed All Hazards 5, 6 PS \$7,500 General Fund Completed Actions G1.11—Public Asset vulnerability assessments. Completed All Hazards 1, 2, 3, 4, 5, 6 PS \$2,500 General Fund Completed Actions G1.12—Com Ed System Hardening Actions. Ongoing All 1, 2, 5, 6 Com Ed \$0 N/A Ongoing						
Actions G1.11—Public Asset vulnerability assessments. Completed All Hazards						
Completed All Hazards 1, 2, 3, 4, 5, 6 PS \$2,500 General Fund Completed Actions G1.12—Com Ed System Hardening Actions. Ongoing All 1, 2, 5, 6 Com Ed \$0 N/A Ongoing						
Actions G1.12—Com Ed System Hardening Actions. Ongoing All 1, 2, 5, 6 Com Ed \$0 N/A Ongoing						
Ongoing All 1, 2, 5, 6 Com Ed \$0 N/A Ongoing						
Action 61.12 Where appropriate support retrofitting purchase or relegation of structures in						
Action G1.13—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.						
FEMA Hazard Long-term						
Ongoing All 7, 13 Village of High Mitigation (depending on Glencoe Grants funding)						
Glencoe Grants funding) Action G1.14—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 Low General Fund Short-term and						
Glencoe ongoing						
Action G1.15—Integrate the hazard mitigation plan into other plans, programs, or resources that						
dictate land use or redevelopment.						
Ongoing All 3, 4, 6, 10, 13 Village of Low General Fund Short-term Glencoe						
Action G1.16—Continue to support the countywide actions identified in this plan.						
Ongoing All All Village of Low General Fund Short- and Long-						
Glencoe term						
Action G1.17—Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing All 3, 4, 6 DHSEM, Village Low General Fund Short-term						
of Glencoe						
Action G1.18—Target hardening of the Village Water Plant.						
Ongoing Flood 9 TBD TBD TBD Ongoing						
Action G1.19—Add security cameras to Glencoe Train Station.						
Ongoing TBD 2 TBD TBD TBD Ongoing						
Action G1.20—Add security cameras to strategic locations throughout the Glencoe Business District.						
Ongoing TBD 2 TBD TBD TBD Ongoing						
Action G1.21—Transition the Village of Glencoe's Emergency Mass Notification System from Everbridge						
o Rave Alert.						

New	All		Glencoe Public	\$1,800;	Local Funds	09/2019
			Safety	Low		
(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.						

	Number of			Do	Is Project	Can Project Be	
Action Number	Objectives Met	Benefits	Costs	Benefits Equal or Exceed Costs?	Grant- Eligible?	Funded Under Existing Programs/Budgets?	Priority (a)
1	2	Medium	Low	Yes	No	Yes	Medium
2	4	High	Low	Yes	No	Yes	Medium
3	3	Medium	Low	Yes	No	Yes	Medium
4	6	High	Low	Yes	No	Yes	High
5	8	High	Low	Yes	No	Yes	High
6	4	High	Low	Yes	No	Yes	High
7	4	Medium	Low	Yes	No	Yes	High
8	2	High	Low	Yes	No	Yes	High
9	6	High	Low	Yes	No	Yes	High
10	2	High	Low	Yes	No	Yes	High
11	6	High	Low	Yes	No	Yes	High
12	4	Medium	Low	Yes	No	N/A	High
13	2	High	High	Yes	Yes	No	Medium
14	3	Medium	Low	Yes	No	Yes	High
15	5	Medium	Low	Yes	No	Yes	High
16	13	Medium	Low	Yes	No	Yes	High
17	3	Low	Low	Yes	Yes	Yes	High
18	1	TBD	TBD	TBD	TBD	TBD	TBD
19	TBD	TBD	TBD	TBD	TBD	TBD	TBD
20	TBD	TBD	TBD	TBD	TBD	TBD	TBD
21	2	Medium	Low	Yes	No	Yes	High

New Mitigation Actions

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

Mitigation Action	Transition the Village of Glencoe's Emergency Mass Notification System from
integation / tetion	Everbridge to Rave Alert
Year Initiated	2019
	Glencoe Public Safety
Lead	Glencoe Public Safety
Agency/Organization	,
Supporting	Glencoe Public Safety
Agencies/Organizations	
	Protect the lives, health, safety, and property of the citizens of Cook County
	from the impacts of natural hazards. Protect public services and critical
Applicable Goal	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 impacts of natural hazards
	Develop, improve, and protect systems that provide early warnings, emergency
	response communications, and evacuation procedures.
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.
Potential Funding	Local Funds
Source	
Estimated Cost	\$1800
Benefits (loss avoided)	With the new system we will be able to alert our residents of before, during, or
	after an emergency situation.
Projected Completion	09/2019
Date	
Priority and Level of	
Importance (Low,	High Priority
Medium, High)	
Benefit Analysis (Low,	Medium - Project will have a long-term impact on the reduction of risk
Medium, High)	exposure for life and property, or project will provide an immediate reduction
	in the risk exposure for property.
Cost Analysis (Low,	Low - The project could be funded under the existing budget. The project is part
Medium, High)	of or can be part of an ongoing existing program.
Actual Completion	
Date	

Recommended Mitigation Action/Implementation Plan and Project Description				
Action/Implementati	on With the new system we will be able to alert our residents before, during, or			
Plan and Project after an emergency situation for both natural disasters and man ma				
Description: incidents. Our dispatch center will have IPAWS capabilities to reach a				
citizens living or traveling through our community.				

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

Miti	gated Hazards
Х	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	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.

Action G-1.1

TABLE: ACTION	ABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# G-1.1	Forestry Department routine tree trimming/removal operations				
Status Description: Yes		0			
Completion sta	tus legend:				
	O = Action Ongoing toward Completion upleted R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION	TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# G-1.2	Develop/maintain Stormwater CIP				
	In 2017 the village completed improvements to the basins at Park Ave and Madison Ave.	0			
Completion sta	Completion status legend:				
N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

Action G-1.3

TABLE: ACTION	ABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)				
# G-1.3	Continue Street Department routine street sweeping operations					
Status Description: Yes		0				
Completion sta	-					
	 New O = Action Ongoing toward Completion Project Completed R = Want Removed from Annex X = No Action Taken 					

TABLE: ACTION	TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# G-1.4	Storm water retention on new residential development				
Status Description: Yes	Requirements are enforced with all single family development.	0			
Completion status legend:					
N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

Action G-1.5

TABLE: ACTION PLAN MATRIX		
Action Numbe Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# G-1.5	Residential Guide to Storm water Management	
Status Description: Yes	Information provided to residents via Village website.	0
Completion status legend:		
N = New C = Project Cor	O = Action Ongoing toward Completion mpleted 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)
	Erosion control on natural land storm water passages (ravines & streams)	
	In 2017 the village completed Rockgate and Brentwood storm outfall and ravine restoration.	0
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action G-1.7

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# G-1.7	Village Website as notification and information tool	
Status Description: Yes	Village website was redesigned and launched in February 2017.	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 Numbe Action Taken Y/N	·	Status (X, O, C, R, N)
# G-1.8	Tornado Waning Siren	
Status Description: Yes	In 2017 the tornado siren at Glencoe Golf Course was repaired. In 2018 the siren will be moved from its current location to the new West School site and converted from battery powered to hard-wired electrical.	0
Completion status legend:		
N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action G-1.12

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# G-1.12	Com Ed System Hardening Actions		
Status Description: Yes		0	
Completion sta	itus legend:		
	O = Action Ongoing toward Completion npleted R = Want Removed from Annex X = No Action Taken		

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	·	Status (X, O, C, R, N)
	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		0
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action G-1.14

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# G-1.14	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: Yes	The village is minimally impacted and only has a few properties in the flood plain.	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)
	Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.	
Status Description: Yes		0
Completion sta N = New C = Project Com	tus legend: O = Action Ongoing toward Completion ppleted R = Want Removed from Annex X = No Action Taken	

Action G-1.16

TABLE: ACTION PLAN MATRIX			
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)	
# G-1.16	Continue to support the county-wide actions identified in this plan		
Status Description: Yes		0	
Completion sta	-		
	O = Action Ongoing toward Completion pleted 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)
# G-1.17	Actively participate in the plan maintenance strategy identified in this plan	
Status Description: Yes		0
	tus legend: O = Action Ongoing toward Completion pleted R = Want Removed from Annex X = No Action Taken	

Action G-1.18

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# G-1.18	Target hardening of the Village Water Plant	
Status Description: Yes	Preliminary meetings have been conducted with Forest Security.	0
Completion sta	tus legend:	
	O = Action Ongoing toward Completion ppleted R = Want Removed from Annex X = No Action Taken	

TABLE: ACTION PLAN MATRIX		
Action Number	Action Item Description	Status
Action Taken		(X, O, C, R, N)
Y/N		
# G-1.19	Add security cameras to Glencoe Train Station	
Status		0
Description:		
Yes		
Completion status legend:		
N = New	O = Action Ongoing toward Completion	
C = Project Com	npleted R = Want Removed from Annex X = No Action Taken	

TABLE: ACTION	I PLAN MATRIX	
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# G-1.20	Add security cameras to strategic locations throughout the Glencoe Business District.	
Status Description: Yes		О
Completion sta N = New C = Project Con	otus legend: O = Action Ongoing toward Completion ppleted 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.

Action G-1.9

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Status (X, O, C, R, N)				
# G-1.9	Annual All Hazard Plan exercise				
Description:	Active Shooter Table Top was completed with Glencoe Public Safety, Village of Glencoe, Glenview Public Safety Dispatch, and Glencoe School District 35.	С			
Completion status legend:					
N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

100011 0 1110					
TABLE: ACTION	I PLAN MATRIX				
Action Number Action Taken Y/N	Status (X, O, C, R, N)				
# G-1.10	Mass Notification Systems (Code Red & Everbridge)				
	Mass Notification system was given an overhaul. Code Red was dropped from Glencoe Public Safety and Everbridge is being used exclusively. Integrated Public Alert and Warning System (IPAWS) setup was completed with FEMA DHS and can be used through Everbridge.	С			
Completion sta	tus legend:				
N = New C = Project Con	O = Action Ongoing toward Completion npleted 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)		
# G-1.11	Public Asset vulnerability assessments			
Status Description: Yes	Charles DuShane from CCDHS came and completed a vulnerability assessment.	С		
Completion status legend:				
N = New C = Project Com	O = Action Ongoing toward Completion npleted R = Want Removed from Annex X = No Action Taken			

Future Needs to Understand Risk and Vulnerability

None at this time.

Additional Comments

None at this time.

HAZUS-MH Risk Assessment Results

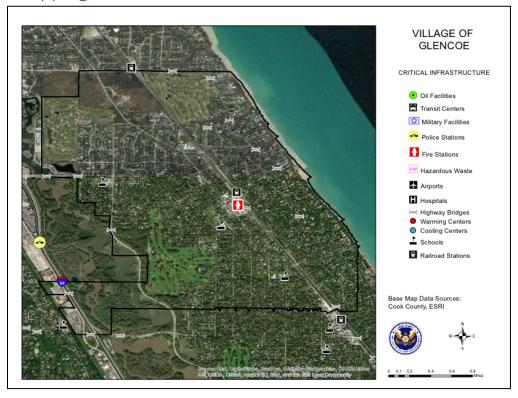
GLENCOE EXISTING CONDITIONS				
2010 Population	8,723			
Total Assessed Value of Structures and Contents	\$2,513,659,635			
Area in 100-Year Floodplain	185.29 acres			
Area in 500-Year Floodplain	191.49 acres			
Number of Critical Facilities	26			

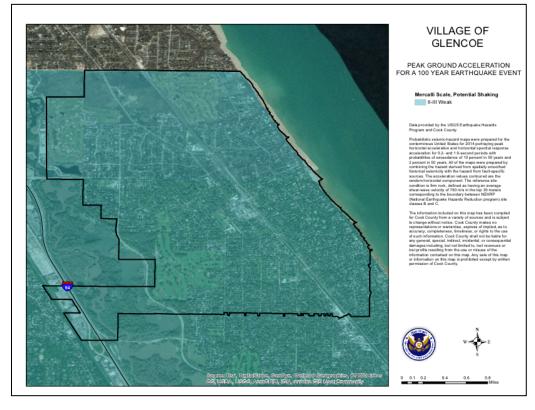
HAZARD EXPOSURE IN GLENCOE						
	Number Exposed		Value Exposed to Hazard			% of Total Assessed
	Population	Buildings	Structure	Contents	Total	Value Exposed
Dam Failure						
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%
Touhy	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%
Flood		•				
100-Year	3	1	\$985,513	\$492,756	\$1,478,269	0.06%
500-Year	0	0	\$985,513	\$492,756	\$1,478,269	0.06%
Tornado						
100-Year	_	_	\$291,273,454	\$167,252,597	\$458,526,051	18.24%
500-Year		<u> </u>	\$577,378,063	\$291,976,559	\$869,354,621	34.59%

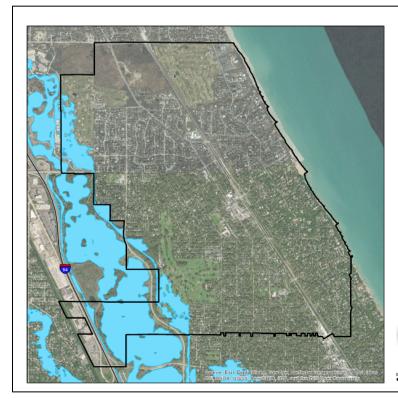
ESTIMATED PROPERTY DAMAGE VALUES IN GLENCOE						
	Estimated Dan	nage Associated with	% of Total Assessed			
	Building	Contents	Total	Value Damaged		
Dam Failure						
Buffalo Creek	\$0	\$0	\$0	0.00%		
U. Salt Cr. #2	\$0	\$0	\$0	0.00%		
Touhy	\$0	\$0	\$0	0.00%		
U. Salt Cr. #3	\$0	\$0	\$0	0.00%		
U. Salt Cr. #4	\$0	\$0	\$0	0.00%		

Earthquake								
1909 Historical Event	\$4,677,288	\$726,729	\$5,404,016	0.21%				
Flood	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	\$29,127,345	\$16,725,260	\$45,852,605	1.82%				
500-Year	\$84,297,197	\$42,628,578	\$126,925,775	5.05%				

Hazard Mapping







VILLAGE OF **GLENCOE**

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.

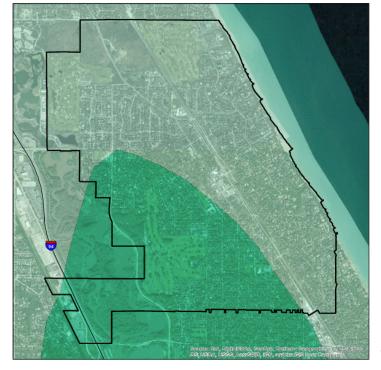
Chicago and Cook County.

The information included on this map has been compled 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, in rights to the use of source the completeness, or rights to the use of source the completeness, or rights to the use of source the completeness, or rights to the use of source the control of the completeness, or rights to the use of section of the control of the use of section of the control of the control of the control of the completeness of the information contained on this map. Any safe 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 **GLENCOE**

LIQUEFACTION SUSCEPTIBILITY

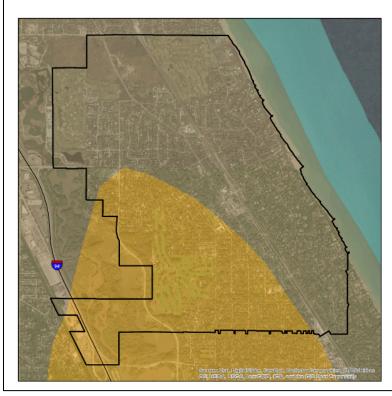
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VILLAGE OF **GLENCOE**

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.

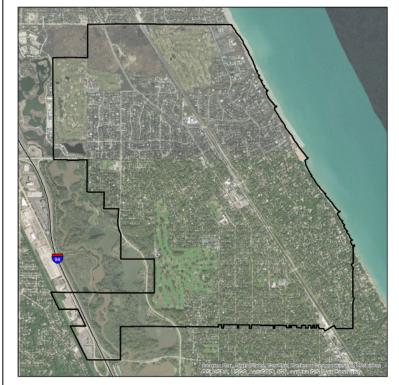
Coad County.

The Casteal bills had Stable Surfrequish Consortion (CUSEC) State Geologists produced a regional Soil State Coad-spital produced a regional Soil State Loss may (REHPS 94 Profile Type AMD 94 Pr









VILLAGE OF **GLENCOE**

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.



