

Glenwood

Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
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Jurisdiction Profile

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

Date of Incorporation: 1871

Current Population: The 2020 U.S. Census population was 8,666. The 2022 U.S. Census estimate indicated the population was 8,352.

Population Growth: The overall population has decreased 6.27 percent between 2016 and 2022.

Location and Description: Glenwood is about 23 miles south of the Chicago Loop, in the County of Cook. Glenwood is conveniently located within close distance to the Midway Airport and Gary-Chicago International Airport. The Village is near the Homewood Metra Rail located at Ridge Rd. at Harwood Ave (Homewood IL 60430), Interstate 394, Interstate 294, Interstate 90-94 and 4 State and County Roads. The Suburban Village of Glenwood is mostly surrounded by Cook County Forest Preserves. The total incorporated area is approximately 3.12 square miles, with one-half of the zoning distribution noted as parks or forest preserves. Adjacent towns are: Thornton to the north, Chicago Heights and Ford Heights to the south, Lansing and Lynwood to the east, and Homewood to the west. The Village consists of affordable single family homes and is considered a place when multigeneration families choose to remain because Glenwood is the product of over 100 years of prosperous growth and development.

Brief History: The Village of Glenwood was originally founded as Hickory Bend. The Village is surrounded by forest preserves, some of which are named for early settlers. Glenwood is a quiet community with tree-lined streets. The Glenwood Shoreline is an ancient one that represented the edge of Lake Chicago. It is named after Glenwood—not the other way around. The Shoreline was formed when the lake, which was higher during the last Ice Age, receded and left behind a sand ridge. This ridge can be seen clearly in Glenwood and along the Glenwood-Dyer Road into Indiana.

Climate: Glenwood gets 37 inches of rain and 29 inches of snow per year. The US average is 37 inches and 25 inches, respectively. The number of days with any measurable precipitation is 110 and, on

average, there are 191 sunny days per year in Glenwood. The July high is around 84 degrees and the January low is 14. Glenwood's comfort index, which is based on humidity during the hot months, is a 47 out of 100, where higher is more comfortable. The US average on the comfort index is 44.

Governing Body Format: The Village of Glenwood operates under the Village President/Trustee form of government. The legislative body consists of the Village President, Board of six Trustees and Village Administrator. The Village President and Board of Trustees serve a term of four years. This body of Government will assume the responsibility for the adoption and implementation of this plan. The Village Administrator is responsible for day-to-day operation of the Village and oversees 8 departments including the Village Administrators Office, Finance Department, Building Department, Fire Department, Police Department, Public Works Department, Water Department, and Animal Department.

Development Trends: The Village of Glenwood offers a number of attractive incentives that help create healthy businesses. New, as well as established businesses reap the benefits of the Village's economic development program. Our Village offers Tax Increment Finance, real estate and sales tax abatements, low cost finance, job training and other economic development incentives. For more than 100 years, Glenwood has encouraged development and expansion of commercial and industrial enterprise. Today Glenwood is committed to a vibrant economic environment that fosters business growth. The Village of Glenwood has been, and will always continue to be, committed to economic development.

Changes in Community Priorities: There have been no significant changes in priority regarding the hazards that could potentially impact the community or changes in priority regarding resilience.

Capability Assessment

The assessment of the jurisdiction's legal and regulatory capabilities is presented in the *Legal and Regulatory Capability Table* below. The assessment of the jurisdiction's fiscal capabilities is presented in the *Fiscal Capability Table* below. The assessment of the jurisdiction's administrative and technical capabilities is presented in *Administrative and Technical Capability Table* below. Information on the community's National Flood Insurance Program (NFIP) compliance is presented in the *National Flood Insurance Program Compliance Table* below. Classifications under various community mitigation programs are presented in the *Community Classifications Table* below.

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Yes	No	No	Yes	Ordinances Chap. 22 "Buildings and Building Regulations" Original Code 1972. Last

					updated Ord. No. 2011-56, § 2, 12-20-2011
Zonings	Yes	No	No	Yes	Appendix A “Zoning Ordinance” Original Ordinance No. 1977-6, May 17, 1977. Last updated Ord. No. 2007-30, § 2, 9-18-2007
Subdivisions	Yes	No	No	No	Ordinances Chap. 90 “Subdivisions” Original Code 1972. Last updated Ord. No. 2013-13, § 2, 8-20-2013
Stormwater Management	Yes	No	Yes	Yes	Ordinances Chap. 46 “Floods” Ord. No. 2008-35, § 7-15-2008. And Chap. 38 “Environment” articles III and IV Ord. No. 200728, § 1, 9-18-200
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	No	No	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	
Site Plan Review	Yes	No	No	No	Chap. 38 “Environment” Sec. 3865 and Sec. 38-80. Ord. No. 2007-28, § 1, 9-18-2007 And Ordinances Chap. 22 “Buildings and Building Regulations”

					Original Code 1972. Last updated Ord. No. 2011-56, § 2, 12-20-2011 And Ordinances Chap. 90 “Subdivisions” Original Code 1972. Last updated Ord. No. 2013-13, § 2, 8-20-2013
Public Health and Safety	No	No	Yes	Yes	Cook County Board of Health
Environmental Protection	Yes	No	No	No	Chap. 38 “Environment” articles III and IV Ord. No. 2007-28, § 1, 9-18-2007
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	Glenwood Comprehensive Plan 2011
<i>Is the plan equipped to provide integration to this mitigation plan?</i>					N/A
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 Little Calumet River watershed planning area of MWRD’s comprehensive Stormwater Master Planning Program
Capital Improvement Plan	No	No	No	No	
<i>What types of capital facilities does the plan address?</i>					N/A
<i>How often is the plan revised/updated?</i>					N/A

Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	Yes	Yes	Village Comprehensive Plan 2011
Shoreline Management Plan	No	No	No	No	
Response/Recovery Planning					
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County EMRS
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County EMRS Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County EMRS
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County EMRS
Public Health Plans	No	No	Yes	No	Cook County DPH

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

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Department/Agency/Position

Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering Consultant acting as Village Engineer, Economic Development and Public Works Dept.
Planners or engineers with an understanding of natural hazards	Yes	Engineering Consultant acting as Village Engineer, Economic Development and Public Works Dept.
Staff with training in benefit/cost analysis	Yes	Finance Department
Surveyors	Yes	Engineering Consultant acting as Village Engineer
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	Yes	Engineering Consultant acting as Village Engineer
Emergency manager	Yes	Village Fire Chief
Grant writers	Yes	Engineering Consultant acting as Village Engineer

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	Public Works Department
Who is your jurisdiction's floodplain administrator? (department/position)	Public Works Department
Are any certified floodplain managers on staff in your jurisdiction?	Engineering Consultant acting as Village Engineer
What is the date of adoption of your flood damage prevention ordinance?	Ordinances Chap. 46 "Floods" Ord. No. 2008-35, § 7-152008.
When was the most recent Community Assistance Visit or Community Assistance Contact?	02/23-2007
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. We are also in the process of updating the flood hazard maps
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?	Yes
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

NFIP Participation Activities

Maintaining compliance under the NFIP is an important component of flood risk reduction. All planning partners that participate in the NFIP have identified actions to maintain their compliance and good standing. Cook County entered the NFIP on April 15, 1981. Structures permitted or built in the County before then are called "pre-FIRM" structures, and structures built afterwards are called "post-FIRM." The insurance rate is different for the two types of structures. The effective date for the current countywide FIRM is August 19, 2008. This map is a DFIRM (digital flood insurance rate map).

The communities in Cook County that participate in the NFIP are shown in **Table: NFIP Participating Communities in Cook County** in **Volume I** of the Cook County MJ-HMP.

The NFIP makes federally-backed flood insurance available to homeowners, renters, and business owners in participating communities. The communities in Cook County that participate in the NFIP and their "Policies in Force," "Total Coverage," and "Total Written Premiums" are shown in **Table: Cook County Flood Insurance Policies** in **Volume I** of the Cook County MJ-HMP.

- Our staff provide the following services: permit reviews, GIS, inspections, engineering capability.
- Our community enforces local floodplain regulations and monitors compliance.
- Our floodplain development regulations meet or exceed Federal Emergency Management Agency (FEMA) or State minimum requirements.

Substantial Improvement Rule and the Substantial Damage Rule

The IDNR/OWR has developed a model ordinance for floodplain management, which has been adopted by most communities in Illinois. The ordinance includes the minimum requirements an NFIP participating jurisdiction must adopt and enforce, as well as additional higher regulatory requirements. The optional, higher regulatory standards include a minimum one foot of freeboard above the base flood elevation and cumulative tracking of damage repairs and improvements to establish substantial damage and substantial improvement compliance. Some jurisdictions have chosen to exceed the requirements of the model ordinance and have adopted more restrictive ordinances. This is most common in the communities in northeastern Illinois.

Existing Municipal Code:

Sec. 46-2 Definitions

Substantial damage means damage of any origin sustained by a structure whereby the cumulative percentage of damage subsequent to the adoption of this chapter equals or exceeds 50 percent of the market value of the structure before the damage occurred regardless of actual repair work performed. Volunteer labor and materials must be included in this determination. The term includes repetitive loss buildings (see repetitive loss).

Substantial improvement means any reconstruction, rehabilitation, addition, or improvement of a structure taking place subsequent to the adoption of this chapter in which the cumulative percentage of improvements equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started.

(1) Substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures which have incurred repetitive loss or substantial damage, regardless of the actual work done.

(2) The term does not, however, include either:

- a. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or
- b. Any alteration of a historic structure listed on the National Register of Historic Places or the Illinois Register of Historic Places, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Sec. 46-4 Duties of the Village Building Inspector

(a) Determining the floodplain designation.

- (1) Check all new development sites to determine whether they are in a SFHA.
- (2) If they are in a SFHA, determine whether they are in a floodway, *flood fringe* or in a floodplain for which a detailed study has not been conducted and which drains more than one square mile.
- (3) Check whether the development is potentially within an extended SFHA (with a drainage area less than one square mile), indicating that the development would have adverse impacts regarding storage, conveyance, or inundation which would be the basis for the applicant being required to delineate the floodplain and floodway and be subject to the remaining sections.

(b) Professional engineer review.

- (1) If the development site is within a floodway or in a floodplain for which a detailed study has not been conducted and which drains more than one square mile, the permit shall be referred to a licensed professional engineer under the employ or contract of the village for review to ensure that the development meets sections 46-7 or 46-8.
- (2) In the case of an appropriate use, the P.E. shall state in writing that the development meets the requirements of section 46-8.

(g) Damage determinations. Make damage determinations of all damaged buildings in the SFHA after a flood to determine substantially damaged structures which must comply with subsection 46-9(3)c.

Sec. 46-7 Occupation and Use of Designated Floodways

This section applies to proposed development, redevelopment, site modification or building modification within a designated floodway. The designated floodway for Thorn Creek, Deer Creek and Butterfield Creek shall be as delineated on the countywide flood insurance rate map and referenced in section 46-2. Only those uses and structures will be permitted which meet the criteria in this section. All floodway modifications shall be the minimum necessary to accomplish the purpose of the project. The development shall also meet the requirements of section 46-9.

(2) Preventing increased damages and a list of appropriate uses.

- a. The only development in a floodway which will be allowed are appropriate uses, which will not cause a rise in the base flood elevation, and which will not create a damaging or potentially damaging increase in flood heights or velocity or be a threat to public health and safety and welfare or impair the natural hydrologic and hydraulic functions of the floodway or channel, or permanently impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this chapter. Only those

appropriate uses listed in 17 Ill. Adm. Code Part 3708 will be allowed. The approved appropriate uses are as follows:

- b. Floodproofing activities to protect previously existing lawful structures including the construction of water tight window walls, elevating structures, or construction of floodwalls around residential, commercial or industrial principal structures where the outside the of the floodwall shall be no more than ten feet away from the exterior wall of the existing structure, and, which are not considered substantial improvements to the structure;
- c. Modifications to an existing building that would not increase the enclosed floor area of the building below the 100-year frequency flood elevation, and which will not block flood flows including but not limited to, fireplaces, pay windows, decks, patios, and second story additions. If the building is improved to 50 percent or more of the market value before the modification occurred (i.e., a substantial improvement), the building will be protected from flooding to the flood protection elevation;

Sec. 46-9 Permitting Requirements Applicable to all Floodplain Areas

In addition to the requirements found in sections [46-6](#), [46-7](#) and [46-8](#) for development in flood fringes, designated floodways, and SFHA or floodplains where no floodways have been identified, the following requirements shall be met.

(3) Protecting buildings.

a. All buildings located within a 100-year floodplain, also known as a SFHA, shall be protected from flood damage below the flood protection elevation. This building protection criteria applies to the following situations:

1. Construction or placement of a new building or alteration or addition to an existing building valued at more than \$1,000.00 or 70 square feet.
2. Substantial improvements or structural alterations made to an existing building that increase the floor area by more than 20 percent or equal or exceed the market value by fifty percent. Alteration shall be figured cumulatively subsequent to the adoption of this chapter. If substantially improved, the existing structure and the addition must meet the flood protection standards of this chapter.
3. Repairs made to a substantially damaged building. These repairs shall be figured cumulatively subsequent to the adoption of this chapter. If substantially damaged the entire structure must meet the flood protection standards of this chapter.
4. Installing a manufactured home on a new site or a new manufactured home on an existing site (the building protection requirements do not apply to returning a manufactured home to the same site it lawfully occupied before it was removed to avoid *flood damage*).
5. Installing a travel trailer or recreational vehicle on a site for more than 180 days per year; and
6. Repetitive loss to an existing building as defined in [section 46-2](#). This building protection requirement may be met by one of the following methods.

b. A residential or nonresidential building, when allowed, may be constructed on permanent land fill in accordance with the following:

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

2. *Fill requirements.*

- i. The fill shall be placed in layers no greater than six inches deep before compaction and should extend at least ten feet beyond the foundation of the building before sloping below the *flood* protection elevation; and
- ii. The top of the fill shall be above the *flood* protection elevation. However, the ten-foot minimum may be waived if a structural engineer certifies an alternative method to protect the building from damages due to hydrostatic pressures; and
- iii. The fill shall be protected against erosion and scour during *flooding* by vegetative cover, riprap or other structural measure; and
- iv. The fill shall be composed of rock or soil and not incorporate debris or refuse materials; and
- v. The fill shall not adversely affect the flow or surface drainage from or onto neighboring properties, and when necessary, stormwater management techniques such as swales or basins shall be incorporated.

c. A residential or nonresidential building may be elevated in accordance with the following:

- 1. The building or improvements shall be elevated on crawl space, stilts, piles, walls, or other foundation that is permanently open to *flood* waters and not subject to damage by hydrostatic pressures of the base *flood* or 100-year frequency *flood*. Designs must either be certified by a licensed professional engineer or architect or the permanent openings, one on each wall, shall be no more than one foot above existing grade, and consists of a minimum of two openings. The openings must have a total net area of not less than one square inch for every one square foot of enclosed area subject to *flooding* below the base *flood* elevation; and
- 2. The foundation and supporting members shall be anchored and aligned in relation to *flood* flows and adjoining structures so as to minimize exposure to known hydrodynamic forces such as current, waves, ice and floating debris; and
- 3. All areas below the *flood* protection elevation shall be constructed of materials resistant to *flood* damage:
 - i. The lowest floor (including basement) and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the *flood* protection elevation; and
 - ii. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other waterproofed service facilities may be located below the *flood* protection elevation provided they are waterproofed.
- 4. The areas below the *flood* protection elevation may only be used for the parking of vehicles, building access or storage in an area other than a basement and not later modified or occupied as habitable space; and
- 5. In lieu of the above criteria, the design methods to comply with these requirements may be certified by licensed professional engineer or architect.
- 6. Manufactured homes, and travel trailers to be installed on a site for more than 180 days, shall be elevated to or above the *flood* protection elevation; and, shall be anchored to resist flotation, collapse, or lateral movement by being tied down in

accordance with the rules and regulations for the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code Part 870. In addition, all manufactured homes shall meet the following elevation requirements:

- i. In the case of manufactured homes placed or substantially improved (1) outside of a manufactured home park or subdivision, (2) in a new manufactured home park or subdivision, (3) in an expansion to an existing manufactured home park or subdivision, or (4) in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage from a *flood*, the top of the lowest floor shall be elevated to or above the *flood* protection elevation.
- ii. In the case of manufactured homes placed or substantially improved in an existing manufactured home park or subdivision, the manufactured home shall be elevated so that either the top of the lowest floor is above the base *flood* elevation or the chassis is at least 36 inches in height above grade and supported by reinforced piers or other foundations of equivalent strength, whichever is less.

f. Construction of new or substantially improved critical facilities shall be located outside the limits of the floodplain. Construction of new critical facilities shall be permissible within the floodplain if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor (including basement) elevated or structurally dry floodproofed to the 500-year flood frequency elevation or three feet above the level of the 100-year flood frequency elevation whichever is greater. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities.

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	Unknown	Unknown	Unknown
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	No	N/A	N/A

Opportunities to Expand and Improve Capabilities

Opportunities to expand and improve capabilities include;

- Ability to fund local match for mitigation grants and to improve GIS capabilities.

Plan Integration

The capability assessment describes opportunities to "link" or integrate the mitigation plan into other planning mechanisms. The process and mechanism to identify opportunities to integrate the Cook County MJ-HMP into other planning mechanisms will occur during the Annual Update Process and be reflected in the Jurisdictional Annual Report each year. Specific plan integration opportunities will include:

- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the jurisdiction's land use plans, zoning, and subdivision codes.

Emergency Plan Integration:

Cook County EMRS is supporting communities to develop and update their respective Emergency Operations Plans, Continuity of Operations Plan/Continuity of Government Plan, and Recovery Plan in 2024. This is an ongoing countywide initiative and is being implemented in all municipalities.

Emergency Operations Plan (EOP)

An EOP template was created for all municipalities. The 2019 Cook County MJ-HMP and the hazards in the mitigation plan have been integrated into the Situation and Assumptions section of the EOP. Within that section, the natural hazards based on the 2019 MJ-HMP were added in the Initial Analysis and Assessment and Identification of Hazards section of the EOP. The hazards in the 2019 plan and the 2024 MJ-HMP did not change apart from adding wildfires for the Forest Preserve and unincorporated areas of the County. Future updates of the EOP will take into consideration any additional new natural hazards that are added to subsequent updates to the MJ-HMP.

Continuity of Operations Plan (COOP)

The Continuity of Operations Plan (COOP) for the municipality includes a Situation section that is based on the 2019 Cook County MJ-HMP jurisdictional annex, and specifically the hazards identified in the annex. The COOP-specific risk assessment is hazard-specific and based on likelihood of occurrence and severity of impact.

Recovery Plan

The goals of the Recovery Plan were developed to align with the 2019 Cook County MJ-HMP, and specifically prioritizes the responsibility of officials under this plan to save lives, protect property, relieve human suffering, sustain survivors, repair essential facilities, restore services, and protect the environment. The plan acknowledges that hazard mitigation is an important priority and consideration during the rebuilding process.

Jurisdiction-Specific Natural Hazard Event History

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

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

- Number of FEMA-Identified Repetitive Loss Properties: 3
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

Federal Disasters Declared

Disaster Declaration Number	Date Declared	Event
DR-227	4/25/1967	Tornado
DR-351	9/4/1972	Flood

DR-373	4/26/1973	Flood
DR-509	6/18/1976	Severe Storm(s)
DR-643	6/30/1981	Severe Storm(s)
DR-776	10/7/1986	Flood
DR-798	8/21/1987	Flood
DR-997	7/9/1993	Flood
DR-1129	7/25/1996	Severe Storm(s)
DR-1188	9/17/1997	Severe Storm(s)
DR-1729	9/25/2007	Severe Storm(s)
DR-1800	10/3/2008	Severe Storm(s)
DR-1935	8/19/2010	Severe Storm(s)
DR-1960	3/17/2011	Snow
EM-3068	1/16/1979	Snow
EM-3134	1/8/1999	Snow
EM-3161	1/17/2001	Snow
EM-3230	9/7/2005	Hurricane – Katrina Evacuation
EM-3435	3/13/2020	Biological
DR-4116	5/10/2013	Flood
DR-4489	3/26/2020	Biological
DR-4728	8/15/2023	Severe Storm(s)
DR-4749	11/20/2023	Flood

State Disaster Declarations

Date Declared	Event
7/26/2010	Severe Storms, High Winds, Torrential Rain
1/31/2011	Winter Weather
4/25/2011	High Wind, Tornadoes, Torrential Rain
5/25/2011	
4/18/2013 4/20/2013 4/21/2013 4/25/2013 4/30/2013	Severe Storms, Heavy Rainfall, Flooding, Straight-line Winds
1/6/2014	Heavy Snowfall, Frigid Temperatures
7/12/2017 7/14/2017	Thunderstorms, Heavy Rainfall, Flooding
1/29/2019	Winter Storm
2/6/2020	Severe Storms
3/12/2020 – present (reissued monthly)	COVID-19
2/16/2021	Winter Storms
2/1/2022	Winter Storms
8/1/2022 (reissued monthly through 10/28/2022)	Monkeypox

TABLE: NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment/ Event Narrative
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Severe Weather	-	6/30/2014	
Hail	-	5/20/2014	
Severe Storms, Straight-Line Winds, Flooding	DR-4116	4/26/2013	
Severe Winter Snowstorm	DR-1960	1/31/2011	
Severe Storms and Flooding	DR-1935	7/19/2010	
Severe Storms and Flooding	DR-1800	9/13/2008	
Severe Storms and Flooding	DR-1729	8/20/2007	
Illinois Flooding	DR-1188	8/16/1997	
Illinois Flooding	DR-1129	7/17/1996	

Jurisdiction-Specific Hazards: Vulnerabilities and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2024 Cook County Multi-Jurisdictional Hazard Mitigation Plan Update. This section only addresses the hazards and their associated impacts that are **relevant** and **unique** to the municipality.

Flood: There are a group of homes on Park Drive in the Manor subdivision that are at risk of repetitive damage from flooding of the Thorn Creek.

Fog: Low lying land between Cottage Grove and 394 experiences fog that affects commuters.

High Winds: Commuters driving through forest preserve property on Main St. from 187th to State Street and Bluewood Dyer Rd to Cottage Grove are at risk for injury and property damage due to falling branches/trees.

Severe Weather: 2014 - Scattered severe thunderstorms developed across northern Illinois producing mainly large hail with a few sporadic areas of wind damage. One storm in particular became quite intense as a right-moving supercell that tracked across the western and southern suburbs of Chicago.

Severe Winter Weather / Tornado: May 27th 2019 - a severe thunderstorm capable of producing a tornado was located over Steger, moving northeast at 25 mph. Tornado warning with hazards of ping pong sized hail advisories to neighboring areas including Glenwood.

Indicator	Number	Percent
Families in poverty	234	8.3%
People with disabilities	1,556	13.1%
People over 65 years	1,836	15.3%
People under 5 years	595	5%
People of color	8,762	73%
Black	7,548	62.9%
Native American	3	0%
Hispanic	801	6.7%
Difficulty with English	123	1.1%
Households with no car	247	5.9%
Mobile homes	0	0%

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

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

Jurisdiction-Specific Climate Change Vulnerability and Impacts

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

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

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	
Drought	Increased
Earthquake	
Flood (Riverine, Urban, Shoreline)	Increased
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Increased
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Decreased
Tornado	Increased
Wildfire (Wildfire Smoke)	Increased

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	
Drought	Increase
Earthquake	
Flood (Riverine, Urban, Shoreline)	Increase
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Increase
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	
Tornado	Increase
Wildfire (Wildfire Smoke)	Increase

Jurisdiction-Specific Changes (or Expected Changes) in Development Trends in Hazard-Prone Areas

The table below outlines if development, as assessed by the local planning team, over the past five (5) years (**Current Vulnerability**) has increased or decreased the jurisdiction's vulnerability/exposure, and thereby the potential impacts, to these natural hazards, and the

anticipated effects changes in development may have on the future probability of occurrence and impacts (**Future Vulnerability**) from these natural hazards.

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	
Drought	
Earthquake	
Flood (Riverine, Urban, Shoreline)	
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	
Tornado	
Wildfire (Wildfire Smoke)	

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	
Drought	
Earthquake	
Flood (Riverine, Urban, Shoreline)	
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Increase
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	
Tornado	Increase
Wildfire (Wildfire Smoke)	Increase

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

- People, including underserved communities and socially vulnerable populations.
- Structures, including new and existing buildings.

Hazard Risk Ranking

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

TABLE: HAZARD RISK RANKING	
Rank	Hazard Type
1	Severe Weather
2	Severe Winter Weather
3	Tornado
4	Flood

5	Earthquake
6	Drought
7	Dam Failure

New Mitigation Actions

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

Action G4.20

Mitigation Action #20: Assist Vulnerable Populations					
Lead Agency/Department Organization: Glenwood Fire Department	Supporting Agencies/Organizations: Glenwood Public Works, Glenwood Police Department	Estimated Cost: Low	Potential Funding Source: Private/Non-Profit Funds Hazard Mitigation Grant Program (HMGP) FEMA Public Assistance (PA)	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)
Year Initiated		2025			
Applicable Jurisdiction		Village of Glenwood			
Applicable Goal		1,2,4,5,6			
Applicable Objective		6,8,12			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		<p>Measures should be taken to ensure vulnerable populations are adequately protected from the impacts of extreme temperatures, such as:</p> <ul style="list-style-type: none"> Organizing outreach to vulnerable populations, including establishing and promoting accessible heating or cooling centers in the community. Requiring minimum temperatures in housing/landlord codes. 			

	<ul style="list-style-type: none"> Encouraging utility companies to offer special arrangements for paying heating bills, if not already required by state law. Creating a database to track those individuals at high risk of death, such as the elderly, homeless, etc.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N

Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2024 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

Action G - 4.2

Mitigation Action #2: The televising and repairing of all sanitary sewer lines and the rehabilitation / sealing of all sanitary structures through-out the Village to eliminate infiltration and stop sewer backups.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: General Fund	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flooding, Severe Weather
Year Initiated	2014				
Applicable Jurisdiction	Village of Glenwood				
Applicable Goal	1,2,3,4,5,6				
Applicable Objective	1,2,9				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	High				

Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High
Action/Implementation Plan and Project Description:	Certain sections were repaired, more are planned.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action G - 4.3

Mitigation Action #3: Develop a community warming/cooling center that can also serve as a safe-room for Tornado events.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund, HMGP, BRIC	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Severe Weather, Severe Winter Weather, Tornado
Year Initiated	2014				
Applicable Jurisdiction	Village of Glenwood				
Applicable Goal	1,2,3,6				
Applicable Objective	5,8				
Cost Analysis (Low, Medium, High)	Medium				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:					

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

Action G - 4.4

Mitigation Action #4: Participate in the Community Rating Sytem					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding
Year Initiated	2014				
Applicable Jurisdiction	Village of Glenwood				
Applicable Goal	1,2,3,5,6				
Applicable Objective	3, 4, 5, 6, 7, 9, 10, 11, 13				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O				

Action G - 4.5

Mitigation Action #5: Developing and maintaining a GIS database to track community vulnerability and exposure in known hazard areas.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		Village of Glenwood			
Applicable Goal		1,2,3,6			
Applicable Objective		1,2,5,6			
Cost Analysis (Low, Medium, High)		Medium			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Atlases converted for infiltration and inflow reduction plan.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action G - 4.6

Mitigation Action #6: Develop and implement a multi-hazard public awareness program.

Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		Village of Glenwood			
Applicable Goal		2,3,6			
Applicable Objective		6,8			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action G - 4.10

Mitigation Action #10: 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.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source:	Estimated Projected Completion Date:	Hazard(s) Mitigated: Flooding

			General Fund	Short-term and Ongoing	
Year Initiated	2014				
Applicable Jurisdiction	Village of Glenwood				
Applicable Goal	1,2,5				
Applicable Objective	4,6,9				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O				

Action G - 4.11

Mitigation Action #11: Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term and ongoing	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Glenwood				

Applicable Goal	1,5
Applicable Objective	3,4,6,10,13
Cost Analysis (Low, Medium, High)	Low
Priority and Level of Importance (Low, Medium, High)	High
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	The zoning Board is updating the zoning code Planning continues, particularly in the 100 year flood zone areas.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action G - 4.12

Mitigation Action #12: 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.					
Lead Agency/Department Organization: Public Works	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: CIP Component of General Fund (if implemented)	Estimated Projected Completion Date: Long-term and Ongoing	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		Village of Glenwood			
Applicable Goal		1,5			
Applicable Objective		1,2,7			
Cost Analysis (Low, Medium, High)		High			

Priority and Level of Importance (Low, Medium, High)	Medium
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High
Action/Implementation Plan and Project Description:	Capital Improvements Program
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O This was in progress but was suspended due to COVID-19. Will start again in 2023

Action G - 4.13

Mitigation Action #13: Continue to support the countywide actions identified in this plan.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short- and Long-term	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Glenwood				
Applicable Goal	1,5				
Applicable Objective	All				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				

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

Action G - 4.14

Mitigation Action #14: Actively participate in the plan maintenance strategy identified in this plan.					
Lead Agency/Department Organization: EMRS, Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Glenwood				
Applicable Goal	1,5				
Applicable Objective	3,4,6				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion;	O				

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

Action G - 4.16

Mitigation Action #16: Levee along Thorn Creek at Arquilla Park					
Lead Agency/Department Organization: MWRD	Supporting Agencies/ Organizations: City of Chicago	Estimated Cost: \$5,770,000	Potential Funding Source: MWRD (\$3,870,000)	Estimated Projected Completion Date: 2024	Hazard(s) Mitigated: Flooding
Year Initiated		2019			
Applicable Jurisdiction		Village of Glenwood; City of Chicago			
Applicable Goal		2			
Applicable Objective		9			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		ID: THCR-G1 Contract: 15-IGA-14 Watershed: Little Cal River Location: Glenwood, IL Description: A cost-sharing agreement with the Village of Glenwood to provide a levee at Arquilla Park to protect residential structures from overbank flooding.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed;		O			

R = Want Removed from Annex; X = No Action Taken/Delayed	
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Action G4.17

Mitigation Action #17: Flood mitigation and engineering for south end of plaza and 7.2 acres that will address flooding in Estates Subdivision.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: \$1.65 million	Potential Funding Source: TIF	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding, Dam/Levee Failure, Snow
Year Initiated		2021			
Applicable Jurisdiction		Village of Glenwood			
Applicable Goal		1,2,4			
Applicable Objective					
Cost Analysis (Low, Medium, High)		Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Reduce overland flooding that affect single family homes. Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.			
Action/Implementation Plan and Project Description:		7.2 acre parcel slated for commercial development in 2023 will have its rain water off site storage piped down Gay Court and will replace 16" pipe with 5'(60") culvert pipe which will enhance outflow from Estates Subdivision that flows in this pipe.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed;		O			

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

Action G4.18

Mitigation Action #18: Upgrade outflow to creek in Forest Preserve from Brookwood Point Subdivision.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/Organizations:	Estimated Cost: \$760,000	Potential Funding Source: Village water/sewer surplus funds with MWRD grant	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding, Dam/Levee Failure, Snow
Year Initiated		2021			
Applicable Jurisdiction		Village of Glenwood			
Applicable Goal		1,2,4			
Applicable Objective					
Cost Analysis (Low, Medium, High)		Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Reduce overland flooding that affect single family homes.			
Action/Implementation Plan and Project Description:		This repair of the discharge storm sewer line along with the repair of the outflow structure in the Forest Preserve to Deer Creek will improve drainage from Brookwood Point Subdivision. We will also embark on a plan to televisize and clean all interior storm lines in back yard.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed;		O			

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

Action G4.19

Mitigation Action #19: Removed a home in the flood plain at 104 Jane Street					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations: Building Department	Estimated Cost: \$3,000,000	Potential Funding Source: HMGP, BRIC	Estimated Projected Completion Date: 2024	Hazard(s) Mitigated: Flooding
Year Initiated		2022			
Applicable Jurisdiction		Village of Glenwood			
Applicable Goal		2,3,4,5,6			
Applicable Objective					
Cost Analysis (Low, Medium, High)		Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Reduction of in home flooding Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.			
Action/Implementation Plan and Project Description:		Construct flood wall/berm. Replace force sewer main to increase lift station capacity.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Completed Actions

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

Completed Action Items
Increase drainage/absorption capabilities on the west sides of the Village by constructing detention and retention basins.
Develop plan to protect infrastructure and critical facilities from natural hazards.
Complete a stormwater drainage study for known problem areas in the community.
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.
Completion of acquisition of homes in the flood plain on park drive, construction of flood wall, bridge replacement on Main Street

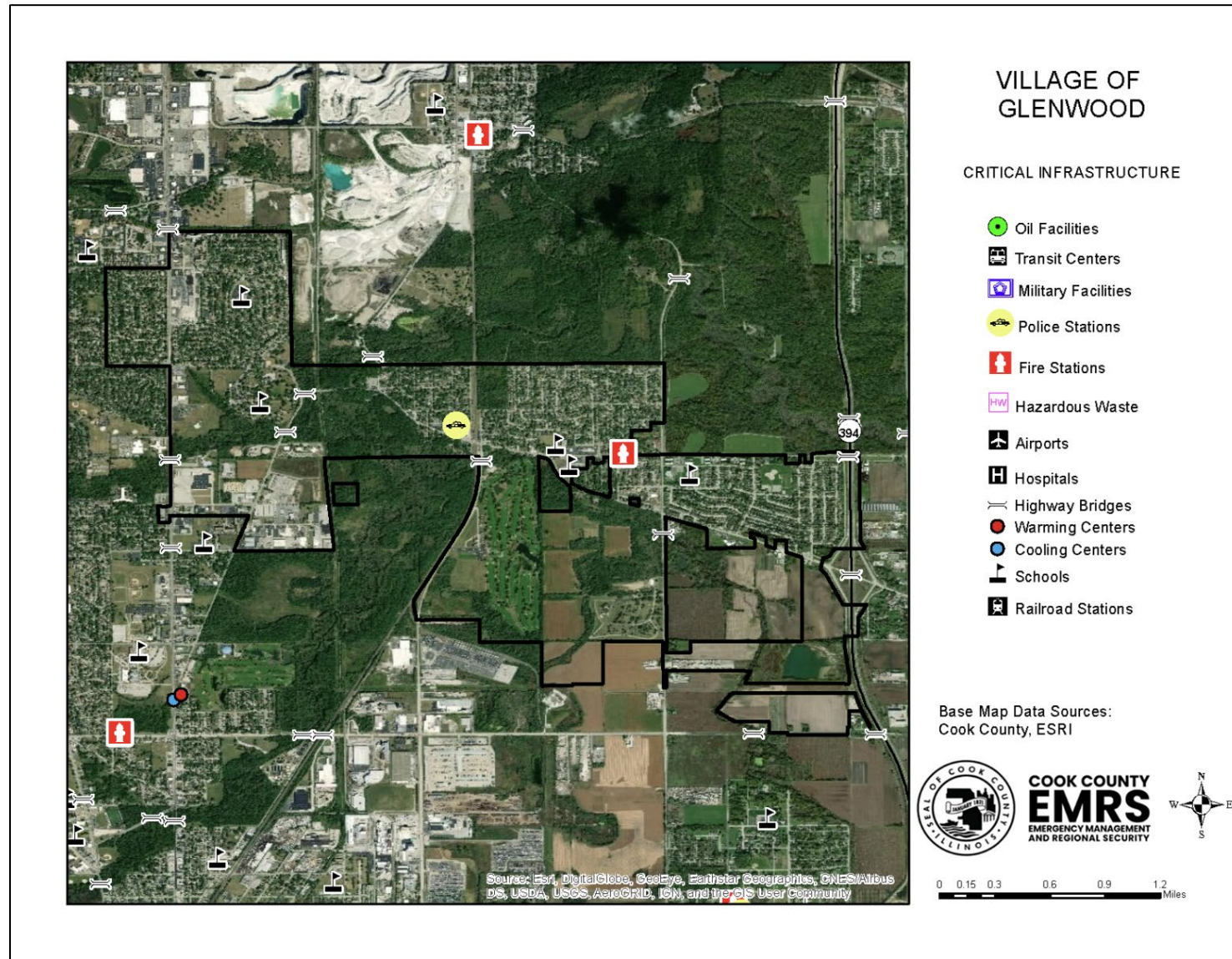
Future Needs to Better Understand Risk/Vulnerability

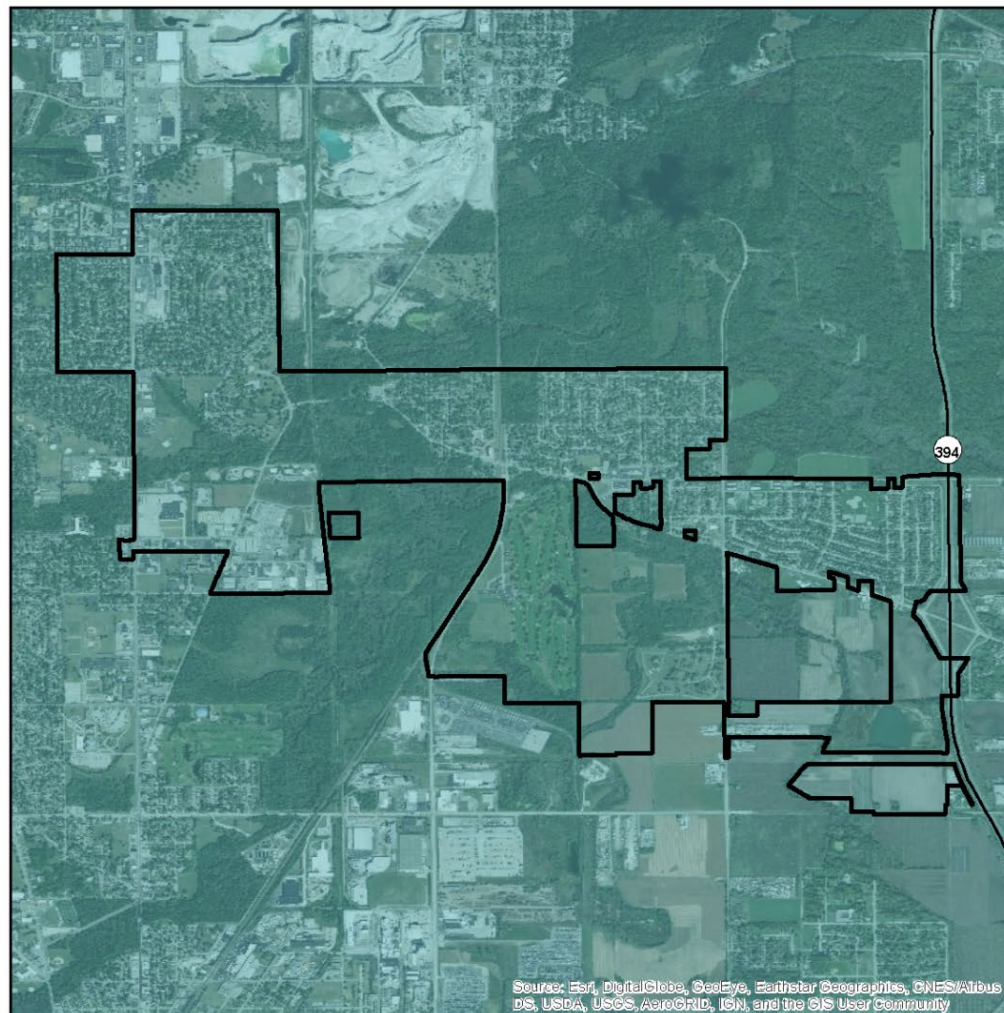
None at this time

Additional Comments

None at this time

Hazard Mapping





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

VILLAGE OF GLENWOOD

PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

Mercalli Scale, Potential Shaking

II-III Weak

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

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

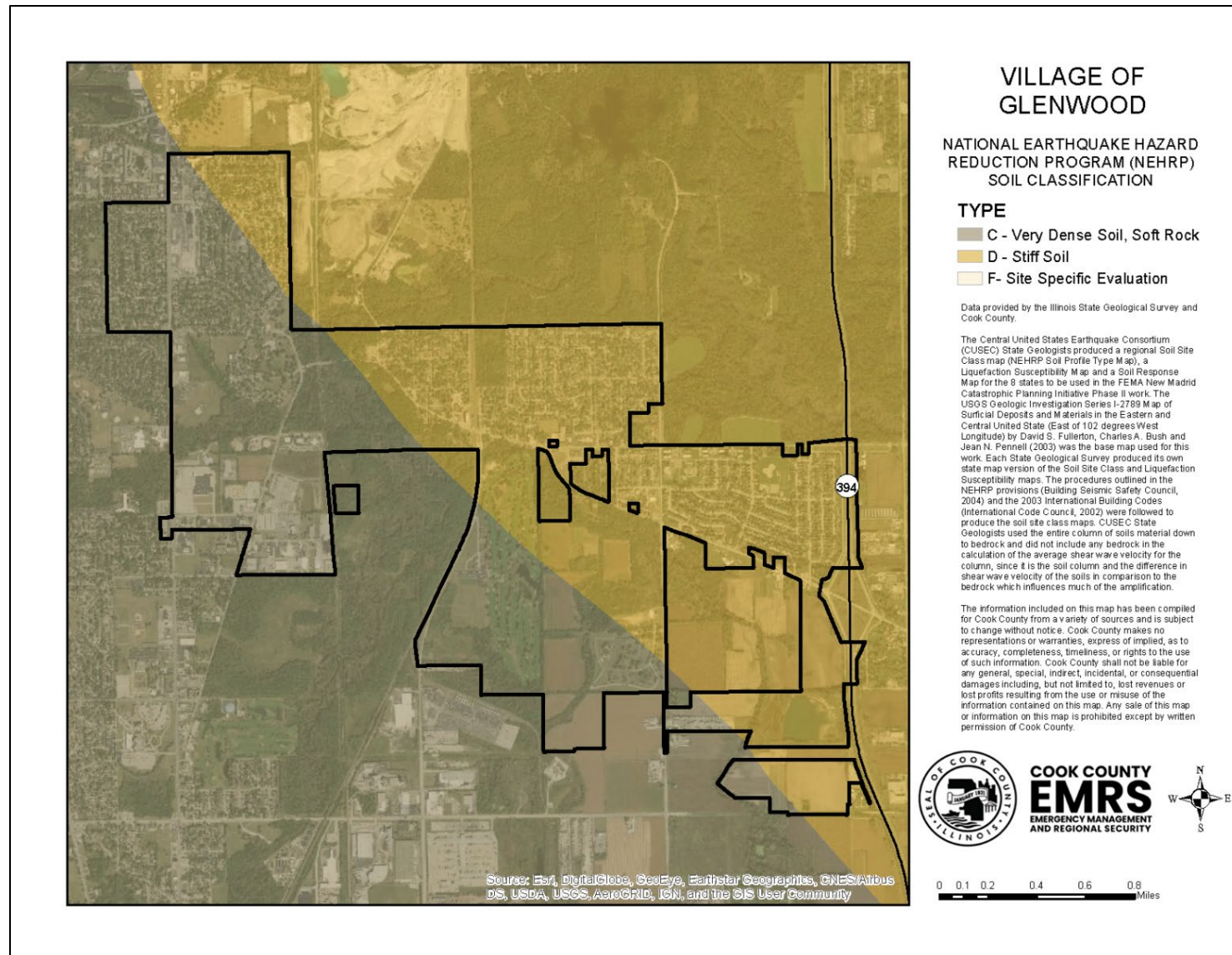
The information included on this map has been compiled for Cook County from a variety of sources and is subject to change without notice. Cook County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. Cook County 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.



COOK COUNTY
EMRS
EMERGENCY MANAGEMENT
AND REGIONAL SECURITY



0 0.15 0.3 0.6 0.9 1.2 Miles



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

