Park Forest

Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of	Alternate Point of
Primary Point of Contact	Contact	Contact
Tom Mick,	Roderick Ysaguirre, PE	Pat Hisel
Village Manager	Director of Public Works	708-748-5605
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Jurisdiction Profile

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

Date of Incorporation: February 1, 1949

Current Population: The 2020 U.S. Census population was 21,687. The 2022 U.S. Census estimate

indicated the population was 20,954.

Population Growth: The overall population has decreased by 3.81% between 2016 and 2022.

Location and Description: Park Forest is all land - 4.96 sq mi (12.85 km). It is located at Latitude: 41.492°N, Longitude: 87.674°W. Park Forest is a village located south of Chicago in Cook County, Illinois, with the small southern portion in Will County, Illinois. The land is characteristic of steep ravines and hills and Forest Preserves are located around the Village. Also, near or bordering the village is Sauk Lake, bordered by steep, sandy bluffs on each side.

Brief History: Park Forest began in 1946 as a dream held by Carroll F. Sweet, Sr., to build a "G.I. Town" for returning veterans and as a new self-governing community in Chicago's south suburbs. Park Forest was honored in 1954 as an "All-America City" for its citizens' help in the creation of Rich Township High School, on Sauk Trail. It was given the same award in 1976 for open housing and racial integration and initiatives. On March 26, 2003, a meteor exploded over the Midwest, showering Park Forest with dozens of meteorite fragments.

Climate: In Park Forest, the summers are warm, humid, and wet; the winters are freezing and windy, and it is partly cloudy year round. Over the course of the year, the temperature typically varies from 18°F to 84°F and is rarely below -1°F or above 92°F

Governing Body Format: Park Forest is in Illinois' 2nd congressional district. The Board of Trustees is the policy-making branch of the Park Forest government. The board is responsible for enacting all legislation for the health, safety, and welfare of the residents of the village. Trustees are elected to four-year terms. The mayor is elected to a four-year term.

Development Trends: While Park Forest is a planned community that has received multiple awards and recognition for land use, planning, and programs, there is a misconception that the Village is "built out," when in fact there are several significant development and redevelopment sites available. Park Forest is committed to maintaining and growing the variety of housing stock available to our residents. In January 2008 the Village Board adopted the Concept Plan for the 211th Street Transit Oriented Development (TOD) and updated the TOD plan in 2012 following completion of an Implementation Study. This Plan encompasses a 10.9-acre development site within the Village of Park Forest, as well as development sites within the Villages of Olympia Fields and Matteson.

Changes in Community Priorities: The Village adopted a Sustainability Plan and Climate Action and Resilience Plan. http://www.vopf.com/960/Links-to-Village-Plans. DPW now has a Capacity, Management, Operation and Maintenance Plan (CMOM), a Source Water Protection Plan, a Risk and Resilience Assessment Plan.

Capability Assessment

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

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinance	s & Requirem	ents			
Building Code	Yes	No	No	Yes	In accordance with Public Act 096-0704, Illinois has adopted the IBC as its state Building Code IBC 2009
Zonings	Yes	No	No	No	(April 1969; amd. Ord. O-7- 10, 2-8-2010)
Subdivisions	Yes	No	No	Yes	§ 151.03 SUBDIVISION PLATS (Ord. O-11-98, 3-9-1998)
Stormwater Management	Yes	No	No	Yes	Village adopted the Will County Storm Water Management

					Plan and Ordinance Only FEMA floodways
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	
Site Plan Review	Yes	No	No	No	
Public Health and Safety	Yes	No	Yes	Yes	Municipal Health Code
Environmental Protection	Yes	No	No	No	
Planning Docume	nts				
General or Comprehensive Plan	Yes	No	No	No	Updated December 14
Is	the plan equip	ped to provide int	egration to this mit	igation plan?	Yes
Floodplain or Basin Plan	Yes	No	No	No	Currently amending plan to include storm water
Stormwater Plan	Yes	No	No	No	Village adopted the Will County Storm water Management Plan and Ordinance
Capital Improvement Plan	Yes	No	No	No	Village uses a 5 Year Capital Plan
spaces, Police and Fire dept needs, Village vehicle replacement,			infrastructure, public parks and spaces, Police and Fire dept needs, Village vehicle replacement, public building needs, Downtown		
11.1%		How oft	en is the plan revis	ed/updated?	Yearly
Habitat Conservation Plan	Yes	No	No	No	2012 sustainability plan / climate

					action and
					resiliency plan
Economic Development Plan	Yes	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook County 6b program.
Shoreline Management Plan	NA	No	No	No	
Response/Recove	ery Planning				
Comprehensive Emergency Management Plan	Yes	No	Yes	Yes	Cook County EMRS
Threat and Hazard Identification and Risk Assessment	Yes	No	Yes	No	Cook County EMRS Preparing THIRA
Terrorism Plan		No	Yes	Yes	Cook County EMRS
Post-Disaster Recovery Plan	Yes	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County EMRS
Public Health Plans		No	Yes	No	Transitioned from a municipal HD to Cook County HD

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	Unknown
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY			
Staff/Personnel Resources	Available?	Department/Agency/Position	
Planners or engineers with knowledge of land development and land management practices	Yes	Public Works Economic Development	
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works Building Dept	
Planners or engineers with an understanding of natural hazards	Yes	Public Works Economic Development	
Staff with training in benefit/cost analysis	Yes	Public Works Economic Development Administration and Finance	
Surveyors	No		
Personnel skilled or trained in GIS applications	Yes	Public Works	
Scientist familiar with natural hazards in local area	No		
Emergency manager	Yes	Emergency Management Agency	
Grant writers	No		

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE		
What department is responsible for floodplain management in your jurisdiction?	Public Works and Community Development	
Who is your jurisdiction's floodplain administrator? (department/position)	Village Manager	
Are any certified floodplain managers on staff in your jurisdiction?	Yes	
What is the date of adoption of your flood damage prevention ordinance?	2008-2019	
When was the most recent Community Assistance Visit or Community Assistance Contact?	June 2019	
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?	Yes, Support for urban flood planning	
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, However intend to within the next 12 months	

NFIP Participation Activities

Maintaining compliance under the NFIP is an important component of flood risk reduction. All planning partners that participate in the NFIP have identified actions to maintain their compliance

and good standing. Cook County entered the NFIP on April 15, 1981. Structures permitted or built in the County before then are called "pre-FIRM" structures, and structures built afterwards are called "post-FIRM." The insurance rate is different for the two types of structures. The effective date for the current countywide FIRM is August 19, 2008. This map is a DFIRM (digital flood insurance rate map). The communities in Cook County that participate in the NFIP are shown in *Table: NFIP Participating Communities in Cook County* in *Volume I* of the Cook County MJ-HMP.

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

The following are NFIP-related activities completed by our community:

- Our staff provide the following services: permit reviews, GIS, inspections, engineering capability.
- My community's Floodplain Administrator is a Certified Floodplain Manager (CFM).
- Our community enforces local floodplain regulations and monitors compliance.

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 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 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 Building Commissioner

- (a) Determining the floodplain designation.
 - (1) The building commissioner shall check all new development sites to determine whether they are in a SFHA.
 - (2) If new development sites are located in a SFHA, the building commissioner shall 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) The building commissioner shall 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 of this chapter.

(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 licensed professional engineer shall state in writing that the development meets the requirements of <u>section 46-7</u>.
- (g) Damage determinations. The building commissioner shall make damage determinations of all damaged buildings in the SFHA after a flood to determine substantially damaged structures which must comply with section 46-9(5)(c).

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

In addition to the requirements found in <u>sections 46-6</u>, <u>46-7</u> and <u>46-8</u> for development in flood fringes, designated floodways, and SFHA or floodplains where no floodways have been identified, the following requirements shall be met.

(1) Public health standards.

- f. New, *substantially* improved or replacement wastewater treatment plants shall have watertight openings for those openings located below the FPE. Such facilities should be located to avoid impairment to the facility or contamination of floodwaters during the base flood.
- (5) 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 shall apply 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 50 percent. Alteration shall be figured cumulatively. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section.
 - 3. Repairs made to a *substantially damaged* building. These repairs shall be figured cumulatively. If *substantially damaged* the entire structure must meet the flood protection standards of this section.
 - 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).
- c. A residential or non-residential 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.
 - 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.
 - 3. All areas below the *flood* protection elevation shall be constructed of materials resistant to *flood* damage.
 - (a) 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
 - (b) 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. No area below the *flood* protection elevation shall be used for storage of items or materials.
 - 5. 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:
 - (a) 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; and

(b) 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		
Building Code Effectiveness Grading Schedule	No		
Public Protection/ISO	Yes	4	2018
StormReady	No		
Tree City USA		Unknown	Previous Years

Opportunities to Expand and Improve Capabilities

Opportunities to expand and improve capabilities include developing a strategy to identify and set aside municipal funds to assist with the 25% cost match for FEMA HMA mitigation grants. Due to the technical expertise needed to develop grant applications and benefit cost analyses for FEMA HMA grants, the Village of Park Forest has a need for qualified grant writers to assist in the development and management of these grants.

Plan Integration

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

• The goals and actions of the Hazard Mitigation Plan will be considered in the next capital improvement planning process.

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 in Cook County: 0
- Number of FEMA-Identified Severe Repetitive Loss Properties in Cook County: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated in Cook County: 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	Severe Storms, Heavy Rainfall, Flooding, Straight-line Winds
4/20/2013	
4/21/2013	
4/25/2013	
4/30/2013	
1/6/2014	Heavy Snowfall, Frigid Temperatures
7/12/2017	Thunderstorms, Heavy Rainfall, Flooding
7/14/2017	
1/29/2019	Winter Storm
2/6/2020	Severe Storms
3/12/2020 – present (reissued	COVID-19
monthly)	
2/16/2021	Winter Storms
2/1/2022	Winter Storms
8/1/2022	Monkeypox
(reissued monthly through	
10/28/2022)	

TABLE: NATURAL HAZARD EVENTS				
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment/ Event Narrative	
Severe Weather		8/10/2020		
Severe Weather	-	6/30/2014	-	

Severe Weather	-	6/24/2014	-	
Flash Flood	-	6/21/2014	-	
Hail	-	1/28/2013	-	
Hail	-	5/26/2012	-	
Tornado	-	6/23/2010	\$100,000 property	
Torriado			damage.	
Tornado	-	6/7/2008	\$1,000,000 property	
			damage.	
Flood	-	8/23/2007	-	
Hail	-	4/10/1999	-	
Severe Weather	-	6/26/1998	-	
Hail	-	4/19/1996	-	
Hail	-	4/26/1994	-	

<u>Jurisdiction-Specific Hazards: Vulnerabilities and Impacts</u>

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.

Drought: Park Forest is a Cohort 4 community (low median income). Senior population is approx. 20%. The Village has a high water rate/fee of \$20.91 per 1000 gallons. Excessive water needs during a drought would have financial impacts to residents, businesses, as well as to the Village to make the water. The Village has it's own water treatment plant and 6 wells. Drought could affect the Village's ability to draw water from under ground aquifer, make water, supply potable water for consumption and supply water for fire dept use. The Village's Central Park Wetland ecosystem could also be impacted.

Earthquake: An Earthquake could damage all village utilities/infrastructure such as water supply and distribution, sanitary collection and conveyance, road network and storm water management. Village water supply wells and water treatment plant facility could be damaged. A Canadian National railroad overpass over Orchard Drive (main North and South collector road) could impact passage if collapsed. Juniper Tower (10 floors) and Garden House apts (10 floors) are senior and/or low income living facilities. We do not believe they are seismically reinforced. 4 village-wide sanitary sewer lift stations could be affected and non-operable. Park Forest stores MABAS/Cook County specialized response equipment in Norwood Storage building that would not be able to be deployed in an emergency. Village elevated water storage tanks could collapse limiting pressure and water storage service leading to unsafe water and potential Boil Orders.

Extreme Temperatures: Park Forest is located in a regional area that can be subjected to occasional extreme heat in summer and cold in winter.

Flood: Park Forest is located in a regional area that can be subjected to occasional heavy rainfall resulting in localized flooding. Storm and sanitary sewers could be filled over capacity limits resulting in overflows, backups, and flooding. Sanitary lift stations could also be over capacity contributing to area wide overflows, back ups, and flooding. The Thorn Creek Estates area of Village has a one way in/out road that is built over Thorn Creek by a culvert. Flooding could make this road/culvert impassible affecting 70 households. A neighboring community (Richton Park) has a detention pond that would overflow and continue as an overland flood route down Park Forest village streets to a village park area. Thus prohibiting access to approx. 32 homes. Orchard Dive which is an underpass to a Canadian National RR, is a main (north and south) collector road that floods making it impassible limiting mobility and emergency response.

Hail: Park Forest is located in a regional area that can be subjected to occasional thunderstorms that produce hail.

Lightning: Park Forest is located in a regional area that can be subjected to occasional thunderstorms that produce lightning.

Severe Wind: Park Forest is located in a regional area that can be subjected to occasional thunderstorms that produce severe wind.

Severe Weather: Park Forest has an approx. 20% senior population that is vulnerable to extreme heat/cold/severe weather. The community also has a mature tree canopy that is vulnerable to uprooting due to extreme weather. The community has its own water treatment plant, sanitary lift stations, water service booster stations, Village Hall, Police and Fire stations that are all vulnerable to severe weather and power outages. The Thorn Creek Estates area of Village has a one way in/out road that is built over Thorn Creek by a culvert. Severe flooding could make this road/culvert impassible affecting 70 households. Park Forest stores MABAS/Cook County specialized response equipment that would not be able to be deployed in an emergency.

Severe Winter Weather: Park Forest is located in a regional area that can be subjected to occasional severe winter weather that produces snow, sleet, freezing rain, or a wintery mix. Park Forest has a 20% senior population that is vulnerable to extreme heat/cold/severe weather. The community also has a mature tree canopy that is vulnerable to extreme winter weather. The community has its own water treatment plant, sanitary lift stations, water service booster stations, Village Hall, Police and Fire stations that are all vulnerable to severe weather and power outages. The Thorn Creek Estates area of Village has a one way in/out road that is built over Thorn Creek by a culvert. Severe winter weather could make this road/culvert impassible affecting 70 households. Park Forest stores MABAS/Cook County specialized response equipment that would not be able to be deployed in an emergency. Vacant homes throughout the Village are prone to frozen and burst water pipes.

Tornado: Park Forest is located in a regional area that can be subjected to occasional thunderstorms that produce a tornado. The community has a mature tree canopy that is vulnerable to uprooting by tornadoes. The community has its own water treatment plant, sanitary lift stations, water service booster stations, Village Hall, Police and Fire stations that are all vulnerable to tornadoes and power outages. The Thorn Creek Estates area of Village has a one way in/out road that is built over Thorn Creek by a culvert. Damage could make this road/culvert impassible affecting 70 households. Park Forest stores MABAS/Cook County specialized response equipment that would not be able to be deployed in an emergency, if damaged. A Canadian National railroad overpass over Orchard Drive (main North and South collector road) could impact passage if collapsed. Juniper Tower (10 floors) and Garden House apts (10 floors) are senior and/or low income living facilities.

Wildfire (Wildfire Smoke): Along a majority of the East and Southern corporate limits are Cook and Will County Forest Preserve areas. Wildfires could spread to residential areas and limit access to a village water storage tank (Standpipe). The Thorn Creek Estates area of Village is a heavily wooded area and has a one way in/out road that is built over Thorn Creek by a culvert. Wildfires near in/out road could make this road/culvert impassible affecting 70 households.

Indicator	Number	Percent
Families in poverty	390	7.1%
People with disabilities	3,688	15.8%
People over 65 years	3,606	15.4%
People under 5 years	1,273	5.4%
People of color	18,037	77.2%
Black	15,728	67.3%
Native American	17	0.1%

Hispanic	1,410	6%
Difficulty with English	111	0.5%
Households with no car	565	6%
Mobile homes	32	0.3%

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

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

Jurisdiction-Specific Climate Change Vulnerability and Impacts

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

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

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Remained the Same
Earthquake	Not Applicable
Flood (Riverine, Urban, Shoreline)	Remained the Same
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Wings)	Remained the Same
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Remained the Same
Tornado	Remained the Same
Wildfire (Wildfire Smoke)	Remained the Same

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Increase
Earthquake	Not Applicable
Flood (Riverine, Urban, Shoreline)	Increase
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Wings)	Increase
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	No Change Anticipated
Tornado	Increase

Wildfire (Wildfire Smoke)	Increase
---------------------------	----------

<u>Jurisdiction-Specific Changes (or Expected Changes) in Development Trends in Hazard-Prone</u> Areas

The table below outlines if development, as assessed by the local planning team, over the past five (5) years (**Current Vulnerability**) has increased or decreased the jurisdiction's vulnerability / exposure, and thereby the potential impacts, to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts (**Future Vulnerability**) from these natural hazards.

Hazard	Vulnerability	
Current Vulnerability		
Dam and Levee Failure	Not Applicable	
Drought	Remained the Same	
Earthquake	Remained the Same	
Flood (Riverine, Urban, Shoreline)	Remained the Same	
Severe Weather (Extreme Heat, Lightning, Hail,	Remained the Same	
Fog, High Wings)		
Severe Winter Weather (Ice Storms, Heavy Snow,	Remained the Same	
Blizzards, Extreme Cold)		
Tornado	Remained the Same	
Wildfire (Wildfire Smoke)	Remained the Same	

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
Flood (Riverine, Urban, Shoreline)	No Change is Anticipated
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Wings)	No Change is Anticipated
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	No Change is Anticipated
Tornado	No Change is Anticipated
Wildfire (Wildfire Smoke)	No Change is Anticipated

Our community does not anticipate future major assets may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan. Any new assets (e.g., new construction in hazard prone areas) will be constructed to adhere to the latest building codes and standards, and mitigation to protect them from identified and anticipated hazards, especially those that are expected to increase due to climate change. Although the community does not anticipate future major assets to be uniquely vulnerable or impacted by hazards, future climate change impacts may exacerbate flooding, drought, severe weather, and extreme heat conditions. With 20% of the population being elderly, the impacts of drought and extreme heat are a specific concern. The Village's proximity to the Forest Preserves of Cook County also brings added concerns related to wildfire and air quality issues, which could increase in frequency due to climate change. This trend will be assessed over the next five years.

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

New Mitigation Actions

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

Mitigation Action #8: Establish a water use ban, if needed in the case of Drough						
Lead Agency/Department Organization:	Supporting Agencies/	Estimated Cost:	Potential Funding	Estimated Projected	Hazard(s) Mitigated:	
Administration	Organizations:	LOW	Source:	Completion	Drought	
, tarrimotration	Public Works		General	Date:	Drought	
			Fund	Ongoing		
Year Initiated	1	2024	l		l	
Applicable Jurisdiction		Village of Park Forest				
Applicable Goal		1,2,3,4,5,6				
Applicable Objective		2				
Cost Analysis (Low, Medium	, High)	Low				
Priority and Level of Importance (Low, Medium, High)		Medium				
Benefits of the Mitigation Pro Avoided or Issue Being Mitigat	Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Establish a water use ban, if needed in the case of Drought.				
Actual Completion Date or C	Ingoing Indefinite					
Project Status & Changes in Priority Completion status legend:						
 N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed 		N				

Action P-1.9

Mitigation Action #9: Budget for and complete underground water main leakage survey/monitoring.					
Lead Agency/Department	Supporting	Estimated Cost:	Potential	Estimated	Hazard(s)
Organization:	Agencies/	Medium	Funding	Projected	Mitigated:
Administration	Organizations:		Source:	Completion	Drought
			General Fund	Date:	
				Short-term	
Year Initiated		2024			
Applicable Jurisdiction		Village of Park Forest			
Applicable Goal		1,2,3			
Applicable Objective		2			
Cost Analysis (Low, Medium	, High)	Medium			
Priority and Level of Importa	nce (Low,	Medium			
Medium, High)					
Benefits of the Mitigation Pro	oject (Loss	Medium			
Avoided or Issue Being Mitigat	ed)				
Action/Implementation Plan	and Project	Budget for and complete underground water main leakage survey/monitoring.			
Description:					
Actual Completion Date or O	ngoing Indefinite				
Project Status & Changes in	Priority				
Completion status legend:	Completion status legend:				
N = New; I = In Progress Toward Completion;		N			
O = Ongoing Indefinitely; C = Project Completed;		I N			
R = Want Removed from Annex; X = No Action					
Taken/Delayed					

Mitigation Action #10: Updat	e Building Codes to	2024			
Lead Agency/Department	Supporting	Estimated Cost:	Potential	Estimated	Hazard(s)
Organization:	Agencies/	Low	Funding	Projected	Mitigated:
	Organizations:		Source:		All

Village of Park Forest		General Fund	Completion		
Community Development			Date:		
			Short-term		
Year Initiated	2024				
Applicable Jurisdiction	Village of Park Forest				
Applicable Goal	1,2				
Applicable Objective	10				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low,	High				
Medium, High)	I ligit				
Benefits of the Mitigation Project (Loss	Medium	Madium			
Avoided or Issue Being Mitigated)	Piculaiii				
Action/Implementation Plan and Project	Update Building Codes to 2024				
Description:	Opaate Baltaing Cour	23 10 2024			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority					
Completion status legend:					
N = New; I = In Progress Toward Completion;	N				
O = Ongoing Indefinitely; C = Project Completed;	IN .				
R = Want Removed from Annex; X = No Action					
Taken/Delayed					

Mitigation Action #11: Repla damage in effort to reduce/r	•			,, o.	
Lead Agency/Department Organization:	Supporting Agencies/	Estimated Cost: Medium	Potential Funding	Estimated Projected	Hazard(s) Mitigated:
Administration	Organizations: Public Works	, regiani	Source: General Fund	Completion Date:	Severe Weather
				Ongoing	(Extreme Heat,
					Lightning.

	Hail, Fog, High Winds)		
Year Initiated	2024		
Applicable Jurisdiction	Village of Park Forest		
Applicable Goal	1,2		
Applicable Objective	13		
Cost Analysis (Low, Medium, High)	Medium		
Priority and Level of Importance (Low, Medium, High)	Medium		
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High		
Action/Implementation Plan and Project Description:	Replant public trees that have been removed due to disease, construction activity, or natural hazard damage in effort to reduce/maintain heat island effects.		
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	Z		

Mitigation Action #12: Educa	ition for new residen	nts moving in under the	e Housing Agency's	programs, to help	residents prepare
for possible emergencies. P	rovide educational r	materials and/or semi	nars to educate the	new residents.	
Lead Agency/Department	Supporting	Estimated Cost:	Potential	Estimated	Hazard(s)
Organization:	Agencies/	Low	Funding	Projected	Mitigated:
Housing Authority Manager	Organizations:		Source:	Completion	All
- Village of Park Forest			General Fund	Date:	
			Hazard	Long-term	
			Mitigation		
			Grant Program		

	(HMGP)			
Year Initiated	2025			
Applicable Jurisdiction	Village of Park Forest / Housing Authority			
Applicable Goal	1,2,6			
Applicable Objective	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)	Medium			
Action/Implementation Plan and Project Description:	Education for new residents moving in under the Housing Agency's programs, to help residents prepare for possible emergencies. Provide educational materials and/or seminars to educate the new residents.			
Actual Completion Date or Ongoing Indefinite				
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N			

Mitigation Action #13: Comprovement projects o	•	• • •	psize, and maintain \	∕illage storm sew€	er system during road
Lead Agency/Department Organization: Administration	Supporting Agencies/ Organizations: Public Works	Estimated Cost: Medium	Potential Funding Source: General Fund Hazard Mitigation Grant Program (HMGP)	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline)

	Building			
	Resilient			
	Infrastructure			
	and			
	Communities			
	(BRIC)			
	Flood Mitigation			
	Assistance			
	(FMA) Program			
	Community			
	Development			
	Block Grant			
	(CDBG)			
Year Initiated	2024			
Applicable Jurisdiction	Village of Park Forest			
Applicable Goal	1,2			
Applicable Objective	2			
Cost Analysis (Low, Medium, High)	Medium			
Priority and Level of Importance (Low,				
Medium, High)	Medium			
Benefits of the Mitigation Project (Loss	Madium			
Avoided or Issue Being Mitigated)	Medium			
Action/Implementation Plan and Project	Continue to improve, replace, upgrade, upsize, and maintain village storm			
Description:	sewer system during road improvement projects or as stand alone projects.			
Actual Completion Date or Ongoing Indefinite				
Project Status & Changes in Priority				
Completion status legend:				
N = New; I = In Progress Toward Completion;	N			
O = Ongoing Indefinitely; C = Project Completed;				
R = Want Removed from Annex; X = No Action				
Taken/Delayed				

		here to rent a portable generator to run village sanitary lift stations in the even				
of power loss due to severe Lead Agency/Department Organization: Administration	Supporting Agencies/ Organizations: Public Works	Estimated Cost: Medium	Estimated Potential Estimated Hazard(s) Cost: Funding Source: Projected Mitigated			
			(HMGP) Building Resilient Infrastructure and Communities (BRIC)	Building Resilient Infrastructure and Communities Lightning Hail, Fog High Wir		
Year Initiated		2024				
Applicable Jurisdiction		Village of Park F	orest			
Applicable Goal		1,2,3				
Applicable Objective Cost Analysis (Low, Medius	m High)	2 Medium				
Priority and Level of Import Medium, High)		High				
Benefits of the Mitigation P Avoided or Issue Being Mitig	- `	High				
Action/Implementation Plantage Description:	-	Purchase and/or know where to rent a portable generator to run village sanitary lift stations in the event of power loss due to severe wind, tornado, or extreme weather.				
Actual Completion Date or	Ongoing Indefinite					

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

Mitigation Action #15: Updat	e public safety gene	erator at the fire department/firehouse.			
Lead Agency/Department	Supporting	Estimated Cost: Potential Estimated Hazard(s)			
Organization:	Agencies/	Medium	Funding	Projected	Mitigated:
Park Forest Fire	Organizations:		Source:	Completion	All
Department	Public Works		General Fund Hazard Mitigation Grant Program (HMGP) FEMA Public Assistance (PA)	Date: Short-term	
Year Initiated	1	2026			
Applicable Jurisdiction		Village of Park Fores	t / Fire Department		
Applicable Goal		1,2,3,4,5			
Applicable Objective		1,2,5,6			
Cost Analysis (Low, Medium	, High)	Medium			
Priority and Level of Importa Medium, High)	nce (Low,	Medium			
Benefits of the Mitigation Pro Avoided or Issue Being Mitigat	- '	High			
Action/Implementation Plan	and Project	Update the public sa	fety generator at the	fire department/fir	ehouse. The fire
Description:		department also serves as the EOC in case of emergency.			
Actual Completion Date or C	Ingoing Indefinite				
Project Status & Changes in	Priority	N			

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

Mitigation Action #16: Min	Mitigation Action #16: Minimize the effects of flooding						
Lead	Supporting	Estimated	Potential	Estimated	Hazard(s) Mitigated:		
Agency/Department	Agencies/	Cost:	Funding	Projected	Flood (Riverine,		
Organization: Park Forest Fire	Organizations:	Low	Source: General Fund	Completion Date:	Urban, Coastal/Shoreline)		
Department			Hazard Mitigation Grant Program (HMGP) FEMA Public Assistance (PA)	Short-term	Severe Weather (Extreme Heat, Lightning. Hail, Fog, High Winds) Tornado		
Year Initiated		2027	2027				
Applicable Jurisdiction		Village of Park Forest / Fire Department					
Applicable Goal		1,2,3					
Applicable Objective		1,5,12	1,5,12				
Cost Analysis (Low, Mediu	m, High)	Low					
Priority and Level of Importance (Low, Medium, High)		Low					
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Low					
Action/Implementation Plan and Project Description:		Taking action to minimize the effects of flooding on people, property, and building contents through measures including emergency response, and evacuation planning, with upgrading the fire					

	department's water rescue equipment such as a boat, tow vehicle and tow trailer.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority	
Completion status legend:	
N = New; I = In Progress Toward Completion;	N
O = Ongoing Indefinitely; C = Project Completed;	IN .
R = Want Removed from Annex; X = No Action	
Taken/Delayed	

Mitigation Action #17: Update	Mitigation Action #17: Update Fire Codes						
Lead Agency/Department Organization: Park Forest Fire Department	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All		
Year Initiated		2024	•				
Applicable Jurisdiction		Village of Park Forest	/ Fire Department				
Applicable Goal		1,2,3,4	1,2,3,4				
Applicable Objective		1,2,10,12					
Cost Analysis (Low, Medium,	High)	Low					
Priority and Level of Importar Medium, High)	Priority and Level of Importance (Low, Medium, High)		Medium				
Benefits of the Mitigation Pro Avoided or Issue Being Mitigate	Benefits of the Mitigation Project (Loss		Medium				
Action/Implementation Plan and Project Description:		Update Fire Codes					
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;		N					

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

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.

Mitigation Action #1: Enhance	e stormwater infras	tructure and conduct a	capacity assessn	nent		
Lead Agency/Department	Supporting	Estimated Cost:	Potential	Estimated	Hazard(s)	
Organization:	Agencies/	Varies - \$250,000	Funding	Projected	Mitigated:	
Village of Park Forest - DPW	Organizations:	and higher	Source:	Completion	Flooding	
	Administration		BRIC, HMGP,	Date:		
			FMA	12 months post-		
				award		
Year Initiated		2019				
Applicable Jurisdiction		Village of Park Forest				
Applicable Goal		1,2,3,4,5,6				
Applicable Objective		1,2,3,4,10,12				
Cost Analysis (Low, Medium,	Cost Analysis (Low, Medium, High)		High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).			
Priority and Level of Importar Medium, High)	nce (Low,	High				
		Currently responding to failures and known capacity issues. Require study to				
Benefits of the Mitigation Pro	ject (Loss	determine mitigation strategy.				
Avoided or Issue Being Mitigate	Avoided or Issue Being Mitigated)		High—Project will provide an immediate reduction of risk exposure for life and			
		property.				
Action/Implementation Plan	and Project	Specific areas				
Description:	Action/Implementation Plan and Project		Sioux and Central Park (residential)			
Beschiption.		Thorncreek Dr. (residential)				

	N. Orchard (major thoroughfare) South Western Ave (transportation impact) The primary areas are identified above, however, the condition is pervasive throughout the Village.
	Capacity assessment is required to determine priorities and overall mitigation strategies.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority	
Completion status legend:	
N = New; I = In Progress Toward Completion;	0
O = Ongoing Indefinitely; C = Project Completed;	
R = Want Removed from Annex; X = No Action	
Taken/Delayed	

Mitigation Action #5: Purchase equipment that can aid in natural hazard response and/or mitigation.					
Lead Agency/Department	Supporting	Estimated Cost:	Potential	Estimated	Hazard(s)
Organization:	Agencies/	Varies	Funding	Projected	Mitigated:
Village Administration	Organizations:		Source:	Completion	Flooding,
			HSGP	Date:	Lightning, High
				Ongoing	Wind, Snow,
					Blizzard, Ice
					Storms.
					Tornado,
					Epidemic /
					Pandemic,
					Widespread
					Power Outage,
					Hazardous
					Material
					Incident `
Year Initiated		2021			
Applicable Jurisdiction		Village of Park Fores	st	·	

Applicable Goal	2,3			
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)	Proper equipment and tools will help in responding to and/or mitigating natural hazards or diasters. Low—Long-term benefits of the project are difficult to quantify in the short term.			
Action/Implementation Plan and Project Description:	Purchased sanitizers and implemented COVID-19 protocols for employee health protection.			
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 2022:Purchased a salt brine-making machine, a salt brine tank, and a spray bar for roadway application before snow and ice events. 2023:Purchase and new combination sewer jetter and vactor truck.			

Mitigation Action #6: Make storm water management improvements (as needed) in conjunction with road improvement projects.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Varies	Potential Funding Source: BRIC, HMGP, FMA	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flooding
Year Initiated		2021			
Applicable Jurisdiction		Village of Park Forest			
Applicable Goal		2,3			
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)	This will improve storm water management and maintain existing infrastructure in an effort to reduce flood hazards. 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:	During road improvement projects, additional storm sewer infrastructure will be installed and/or existing infrastructure will be replaced/repaired.
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 2022: DPW replaced approximately 2.7 miles of water main and added a new storm sewer along Arrowhead and Apache St to improve road drainage. DPW completed a 1.28 mile road improvement along Shabbona Dr (Sauk Trail to Indianwood Blvd) and a 4.25 mile road improvement project along various village streets. Portions of existing storm sewers were replaced and portions of new storm sewers were installed to improve road drainage.

Mitigation Action #7: Providing Warming and Cooling Centers					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: BRIC, HMGP	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Extreme Heat, Extreme Cold
Year Initiated		2019			
Applicable Jurisdiction		Village of Park Forest			
Applicable Goal		2,3			
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)	Provides a safe space during extreme temperatures. 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:	The Village Hall continues to be promoted as a warming and cooling center during business hours. The Police and Fire Depts continue to be promoted as warming and cooling centers 24/7.			
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 2023: Shelter locations were announced throughout the year, as needed, so that residents are aware.			

Completed Actions

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

Completed Action Items

Entered into an engineering services agreement with a consultant to design storm water management improvements in Thorn Creek Estates area of Village.

Replaced some storm sewer infrastructure along Winona St and added storm sewer infrastructure along Birch St.

Construction of storm water management improvements in Thorn Creek Estates area of Village.

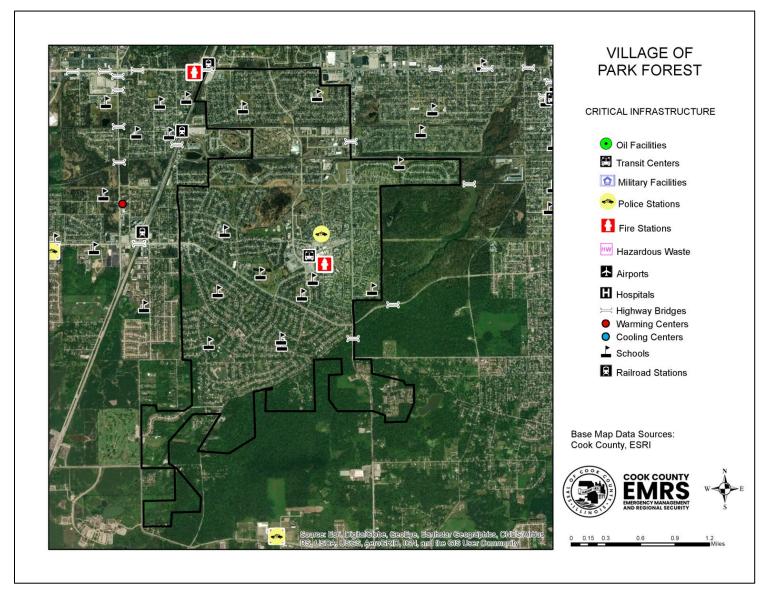
Future Needs to Better Understand Risk/Vulnerability

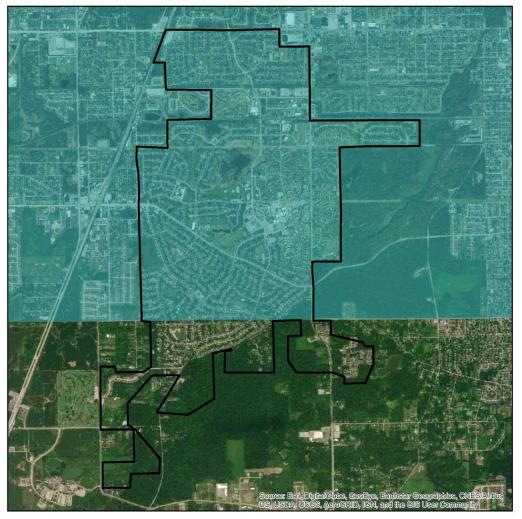
Need funding to regrade/reshape existing storm water drainage swales and ditches that have filled in over time. Need funding to install a back up generator at critical facilities like the Public Works Yard.

Additional Comments

None at this time.

Hazard Mapping





VILLAGE OF PARK FOREST

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.

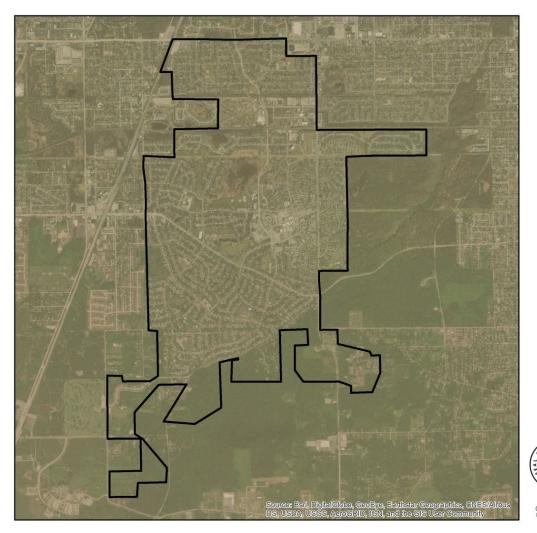
Probabilistic seismic-hazard maps were prepared for the conterminous United States for 2014 portraying peak horizontal acceleration and horizontal sepectral response acceleration for 0.2- and 10-second periods with probabilities of exceedance of 10 percent in 50 years and 2 percent in 50 years. All of 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 cock, 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 Casses B and Cass

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0 0.15 0.3 0.6 0.9 1.2 Mile



VILLAGE OF PARK FOREST

NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

TYPE

C - Very Dense Soil, Soft Rock

D - Stiff Soil

F- Site Specific Evaluation

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

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a LiquieScation Susceptibility Map and a Soil Response Map for the 6 states to be used in the FEHR New Madrid Catastophic Planning intative Phase Hook. The Sourficial Deposits and Materials in the Eastern and Central United State (East of 102 degrees West Longitude) by David S. Fulleron, Charles A. Bush and Jean N. Pennell (2003) was the base map used for this work. Each State Geological Survey produced its own state map version of the Soil Site Class and Liquiefaction Succeptibility maps. The procedures outlined to the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 2002) were followed to produce the soil site class maps. CUSEC State Geologists used the entire column of soils material down to bedrock and did not include any bedrock in the calculation of the average shear wave velocity for the column, since it is the soil column and the difference in shear wave velocity of the soils in comparison to the bedrock which influences much of the ampfication.

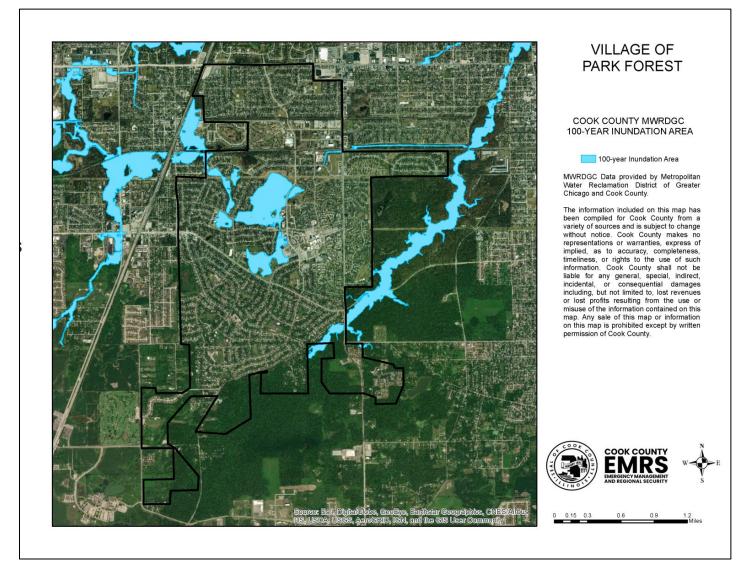
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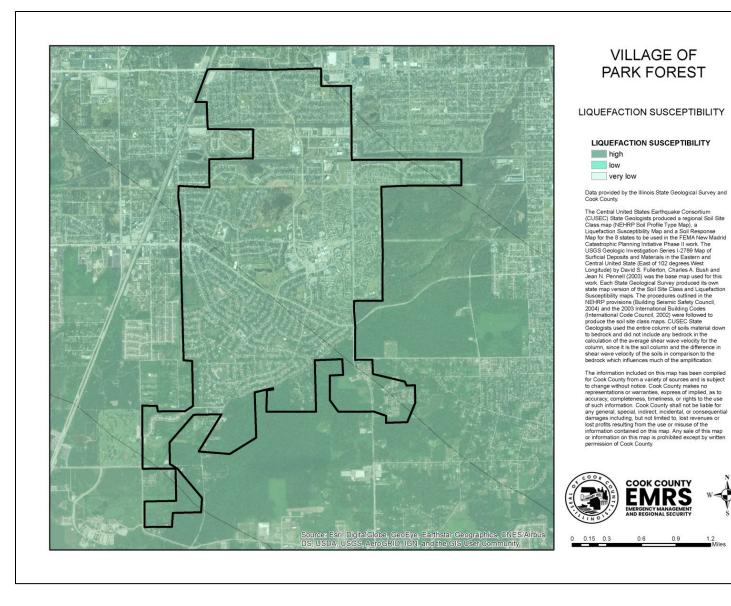


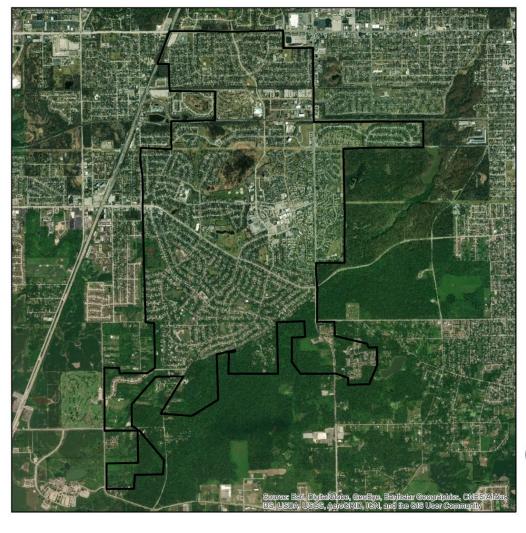


0 0.15 0.3 0.6 0.9 1.2 Mi

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







VILLAGE OF PARK FOREST

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.

