

Crestwood

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: September 26, 1928

Current Population: The 2020 U.S. Census population was 10,822. The 2022 U.S. Census estimate indicated the population was 10,483.

Population Growth: The overall population has decreased 2.66 percent between 2018 and 2022.

Location and Description: Located 17 miles south of the Chicago Loop, Crestwood shares an early history with the adjoining communities of Alsip, Palos Heights, Midlothian and Robbins. The Village of Crestwood is located near the dynamic 294 Interstate Corridor of metro Chicago, only 15 miles from downtown Chicago, 10 miles from Chicago Midway Airport, and 33 miles south of O'Hare Airport. Crestwood is separated into two townships. The dividing line is 135th street. North of 135th street is Worth Township and south is Bremen Township.

Brief History: Crestwood shares an early history with the adjoining communities of Alsip, Worth, Palos Heights, and Robbins. All were part of the marshlands surrounding the Saganashkee Swamp, which were drained for farming and which provided the route for the Calumet-Sag Channel built from 1911 to 1922. From the middle of the nineteenth century, the area included scattered farms and the beginnings of small market towns as railroad stops were established. In the early twentieth century, pressures for residential development grew in the Crestwood area with the establishment of large forest preserves to the west and the Midlothian Country Club to the south. Crestwood experienced significant residential growth in the 1960s and 1970s. Its population grew from 1,213 in 1960 to 10,852 in 1980, with little change in the two decades after that. Both in its early years and throughout its growth, the population of Crestwood has been predominately of German background, with other families of Polish, Italian, Slovak, and English extractions. The minority population was under 10 percent in 2000.

Climate: The climate of the Village of Crestview and the Chicago area is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and humid summers;

pleasant autumns; and cold winters. Annual precipitation is average, and reaches its lowest points in the months of January and February, and peaks in the months of May and June. Winter proves quite variable. Seasonal snowfall in the city has ranged from 9 – 90 inches. The daily average temperature in January at Midway Airport is 24.8 °F (–4.0 °C), and temperatures often stay below freezing for several consecutive days or even weeks in January and February. Temperatures drop to or below 0 °F (–18 °C) on 5.5 nights annually at Midway and 8.2 nights at O’Hare. Spring in the Chicago area is perhaps the city’s wettest and unpredictable season. Winter like conditions can persist well into April and even occasionally into May. Thunderstorms are especially prevalent in the spring time as the city’s lakeside location makes it a center of conflicts between large volumes of warmer and colder air, triggering many kinds of severe weather. Temperatures vary tremendously in the springtime; March is the month with the greatest span between the record highs and lows. On a typical summer day, humidity is usually moderately high and temperatures ordinarily reach anywhere between 78 and 92 °F (26 and 33 °C). The extreme heat that the Chicago area is capable of experiencing during the height of the summer season can persist into the autumn season. Temperatures have reached 100 degrees high and subzero lows below –18 °C. Fall can bring heavy thunderstorms, many of which are capable of producing flooding. The average first accumulating snow occurs around Nov 19.

Governing Body Format: The legislative and governing body of the village shall consist of the Mayor and six Trustees, who shall possess the qualifications for office, be elected by the legal voters of the village, take the oath of office and perform the duties provided by state statutes. Crestwood operates 8 departments including the Water Department, Public Works Department, Building & Zoning Department, Police Department, Fire Department, Recreation Department, and Emergency Management Agency.

Development Trends: Crestwood continues to encourage the building of retail in and around the Rivercrest Shopping Center and along the Cal-Sag Canal, and Cicero Avenue. Aldi was scheduled to start construction in Crestwood in September 2018.

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	Yes	No	Yes	Inter Fire Building Codes

					2023, NFPA Life Safety Codes
Zonings	Yes	Yes	No	Yes	(65 ILCS 5/) Illinois Municipal Code. Chapter 159 adopted: 2012
Subdivisions	Yes	Yes	No	No	Chapter 159 adopted: 2012
Stormwater Management	No	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Adopted: 2012
Post Disaster Recovery	Yes	Yes	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	Yes	No	No	No	Outsourced to Vantage Point Engineering
Site Plan Review	Yes	No	No	No	Outsourced to Vantage Point Engineering Adopted: 2012
Public Health and Safety	No	No	Yes	Yes	Cook County Board of Health
Environmental Protection	No	No	No	No	
Planning Documents					
General or Comprehensive Plan	No	No	No	No	In progress of development
<i>Is the plan equipped to provide integration to this mitigation plan?</i>					N/A
Floodplain or Basin Plan	No	No	MWRD	No	
Stormwater Plan	No	No	MWRD	No	Regional stormwater impacts are managed by MWRD. The Village lies within the

					Calumet-Sag Channel 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	No	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook County 6b program.
Shoreline Management Plan	No	No	No	No	
Response/Recovery 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	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	Yes/Tax Increment Financing
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Other	No

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Outsourced to Vantage Point Engineering	Outsourced to Vantage Point Engineering
Engineers or professionals trained in building or infrastructure construction practices	Outsourced to Vantage Point Engineering	Outsourced to Vantage Point Engineering
Planners or engineers with an understanding of natural hazards	Outsourced to Vantage Point Engineering	Outsourced to Vantage Point Engineering
Staff with training in benefit/cost analysis		
Surveyors	Outsourced to Vantage Point Engineering	Outsourced to Vantage Point Engineering
Personnel skilled or trained in GIS applications	Cook County GIS Consortium	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	
Emergency manager	Crestwood EMA	Crestwood EMA
Grant writers	Yes	

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

What department is responsible for floodplain management in your jurisdiction?	Building and Zoning
Who is your jurisdiction's floodplain administrator? (department/position)	The Village Building Commissioner and

	Village Engineer by ordinance
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	8/19/2008
When was the most recent Community Assistance Visit or Community Assistance Contact?	8/29/2006
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No`
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No, Undecided

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).
- My community teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars.
- 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:

151.02 Definitions

SUBSTANTIAL DAMAGE. Damage of any origin sustained by a building whereby the cumulative percentage of damage during a ten-year period equals or exceeds 50% of the market value of the building 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. Any reconstruction, rehabilitation, addition, or improvement of a building taking place during a ten-year period subsequent to the adoption of this chapter in which the cumulative percentage of improvements equals or exceeds 50% of the market value of the building before the start of construction of the improvement or repair is started, or increases the floor area by more than 20%.

(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 buildings 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 building 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 building's continued designation as a historic structure.

151.03 Duties of the Village Services Director

(A) Determining the floodplain designation.

(1) Check all new development sites to determine whether they are in a floodplain using criteria listed in § 151.03, base flood elevation.

(2) If the site is in a floodplain, determine whether the site is 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.

(a) If the site is within a flood fringe, the Village Services Director shall require that the minimum requirements of § 151.04 be met.

(b) If the site is within a floodway, the Village Services Director shall require that the minimum requirements of § 151.05 be met.

(c) If the site is located within a floodplain for which no detailed study has been completed and approved, the Village Services Director shall require that the minimum requirements of § 151.06 be met.

(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 P.E. under the employ or contract of the Village of Crestwood for review to ensure that the development meets §§ 151.05 or 151.06.

(2) In the case of an appropriate use, the P.E. shall state in writing that the development meets the requirements of § 151.05.

(E) Plan review and permit issuance.

(1) Ensure that all development activities, including new construction and substantial improvements, within the floodplains of the jurisdiction of the Village of Crestwood meet the requirements of this chapter.

(G) Substantial damage and substantial improvement determinations. Establish procedures for administering and documenting determinations, as outlined below, of substantial improvement and substantial damage made pursuant to § 151.08.

(1) Determine the market value or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building before the start of construction of the proposed work. In the case of repair, the market value of the building shall be the market value before the damage occurred and before any repairs are made.

(2) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building.

(3) Determine and document whether the proposed work constitutes substantial improvement or substantial damage.

(4) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood-resistant construction requirements of the village and this chapter is required.

151.08 Permitting Requirements Applicable to all Floodplain Areas and Protection of Buildings

In addition to the requirements found in §§ 151.05, 151.06 and 151.07 and for development in flood fringes, designated floodways, and floodplains where no floodways have been identified, the following requirements shall be met.

(C) Protecting buildings.

(1) In addition to the damage prevention requirements in § 151.05(B) of this chapter, all buildings located within a floodplain, shall be protected from flood damage below the FPE. This building protection criteria applies to the following situations:

(a) New construction or placement of a new building or alteration or addition to an existing building valued at more than \$1,000 or 70 square feet.

(b) Substantial improvements, including any combination of alteration, repair, rehabilitation, reconstruction, addition, or other improvements made to an existing

building that equal or exceed the market value by 50%, or that increase the floor area by more than 20%. Alteration shall be figured cumulatively ten-year period subsequent to the adoption of this chapter. If substantially improved, the existing building and the addition must meet the flood protection standards of this section.

(c) Any repairs made to a substantially damaged building. Substantial damage shall be figured cumulatively ten-year period subsequent to the adoption of this chapter by comparing the cost to repair the building to its pre-damage condition with the market value of the building immediately prior to the damage, for each event in which the building sustains damage and adding the percentages of damage for each event. If substantially damaged, the entire building must meet the flood protection standards of this section.

(d) Installing a manufactured home on a new site or a manufactured home on an existing site (the building protection requirements do not apply when returning a manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage).

(e) Installing a travel trailer or recreational vehicle on a site for more than 180 consecutive days or 180 days in any calendar year.

(f) Repetitive loss to an existing building as defined under § [151.02](#).

(2) The lowest floor (including basement) of new construction of residential buildings, and substantially improved residential buildings, must be elevated to the FPE, subject to the more specific additional requirements in § [151.08\(B\)\(1\)](#) through [151.08\(B\)\(3\)](#) below. If fill, including grading to redistribute onsite material to alter existing topography, is used as a means of elevation:

(a) The lowest floor (including basement) shall be at or above the FPE.

(b) The fill shall be placed in layers no greater than six inches before compaction and must extend at least ten feet beyond the foundation before sloping below the FPE.

(c) The top of the fill shall be above the FPE. 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.

(d) The fill shall be protected against erosion and scour during flooding by vegetative cover, rip-rap, or other structural measure.

(e) The fill shall be composed of clean rock or soil and not include debris or refuse material.

(f) The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties.

(5) The lowest floor (including basement) of new construction of nonresidential buildings, and substantial improvement of nonresidential buildings, must either: (a) be elevated to or above the FPE, subject to the more specific additional requirements of §§ [151.08\(B\)\(2\)](#) through [151.08\(B\)\(4\)](#) above; or (b) be structurally dry floodproofed (in lieu of elevation), provided a registered P.E. or architect submits a FEMA Floodproofing Certificate, documenting that the registered P.E. or architect developed and/or reviewed the structural design, specifications, and plans for construction, and that the engineer or architect certifies that the design and

methods of construction are in accordance with accepted standards of practice for meeting the requirements of ASCE 24-14 and the requirements listed below:

- (a) Below the FPE, the building and attendant utility and sanitary facilities are watertight with walls substantially impermeable to the passage of water and structural components capable of resisting hydrostatic and hydraulic loads and the effects of buoyancy.
 - (b) The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy and impact from debris and ice.
 - (c) Floodproofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity.
 - (d) The building, utility, and sanitary facilities' design and construction will prevent the effect of sewer backup into the building.
 - (e) Levees, berms, floodwalls and similar works are not considered floodproofing for the purpose of this chapter.
- (6) All placement of manufactured homes and or travel trailers, to be permanently installed on site for more than 180 consecutive days or 180 days in any calendar year, shall be:
- (a) Elevated to or above the FPE using a support and anchoring system, designed by a P.E. pursuant to 77 Ill. Adm. Code § 870.110.
 - (b) 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 § 870.220.
 - (c) Travel trailers and recreational vehicles, on site for more than 180 consecutive days or 180 days in any calendar year, shall meet the elevation requirement and anchoring requirements of § 903.4 unless the following conditions are met:
 - 1. The vehicle must be either self-propelled or towable by a light duty truck;
 - 2. The vehicle must not be attached to any permanent additions or external structures, such as decks and porches;
 - 3. The vehicle must be designed solely for recreation, camping, travel or seasonal use rather than as a permanent dwelling;
 - 4. The vehicles having a total area not exceeding 400 square feet measured when all horizontal projections are fully expanded;
 - 5. The vehicle's wheels must remain on axles and have inflated tires;
 - 6. Any air conditioning units must be attached to the frame so as to be safe for movement out of the floodplain;
 - 7. The vehicle must be attached to a site only by quick disconnect type utilities and security devices. Utility connections include, but are not limited to, propane tanks, electrical and sewage; and
 - 8. The vehicle must be licensed and titled as a recreational vehicle or park model, and must either be entirely be supported by jacks, or have a hitch jack permanently mounted, have the tires touching the ground and be supported by block in a manner that will allow the block to be easily removed by use of the jacks/hitch jack.

(9) New construction or substantial improvement of 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 0.2% chance flood elevation or three feet above the BFE 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 BFE shall be provided to all critical facilities. As necessary, adequate parking, at or above the BFE, shall be provided for staffing of the critical facilities during a flood.

(10) Critical facilities may include: emergency services facilities (such as fire and police stations), schools, sewage treatment plants, water treatment plants, sanitary pumping stations, hospitals, retirement homes, senior care facilities, major roads and bridges, critical utility sites (telephone switching stations or electrical transformers), and hazardous material storage facilities (chemicals, petrochemicals, hazardous or toxic substances).

(Ord. 2521, passed 9-19-2019)

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N.A
Building Code Effectiveness Grading Schedule	Yes	Unknown	Unknown
Public Protection/ISO	Yes	ISO 3	2014
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	No	N/A	N/A

Opportunities to Expand and Improve Capabilities

At this time, the municipality did not include or identify any opportunities to expand and improve capabilities. Plans will be updated in the future should this change.

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: 1
- 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 5/25/2011	High Wind, Tornadoes, Torrential Rain
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
Severe Storms	-	8/28/2018	\$10,000 in property damage.
Severe Storms	DR-4116	2013	-
Severe Winter Storms	DR-1960	2011	-
Severe Storms/Flooding	DR-1935	2010	-
Severe Storms/Flooding	DR-1800	2008	-

Severe storm/ Flooding	DR-1729	2007	-
Severe Winter Storm	EM-3161	2000	-
Winter Snow Storm	EM-3134	1999	-
Flooding	DR-1188	1997	-
Flooding	DR-1129	1996	-
Severe Storms/Flooding	DR-997	1993	-
Severe Storms/Flooding	DR-798	1987	-
Severe Storms/Flooding	DR-776	1986	-

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.

Severe Winter Weather: These events can threaten life, property, and major utilities. Burbank continues to pursue mitigation actions to ensure utility service cannot be as easily impacted by things like high winds and ice accumulation. The Senior and Very Young population are particularly vulnerable to this hazard.

Severe Weather: Severe storms have occurred numerous times throughout Crestwood and the surrounding region. In one particular example, wind gusts of an estimated 60 mph were recorded near 147th Street and Cicero Avenue. Vulnerable municipalities/organizations vulnerable to hazards such as Power Outages and Extreme Heat include Seniors in condo complexes and Nursing Homes.

Flooding: Most of Crestwood lies in a moderate urban flooding susceptibility zone with highly susceptible zones in the jurisdictions immediately to the East. Areas that have had repeated flooding events include 135th St. and Playfield. Local creeks repeatedly flood.

Tornado: Although available data may not show any tornado events within Crestwood specifically, these events have caused notable damage in nearby parts of Cook County. Crestwood continues to prepare and mitigate against this hazard. Schools, Nursing Homes, and Assisted Living complexes are particularly vulnerable.

Indicator	Number	Percent
Families in poverty	267	4.5%
People with disabilities	3,050	12.5%
People over 65 years	5,607	22.4%
People under 5 years	1,284	5.1%
People of color	7,971	31.8%
Black	2,786	11.1%
Native American	1	0%
Hispanic	4,397	17.5%
Difficulty with English	439	1.8%
Households with no car	736	7.3%
Mobile homes	36	0.4%

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	Remained the Same
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Remained the Same
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	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	No Change is Anticipated
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 Winds)	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

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	Remained the Same
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Remained the Same
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	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	No Change is Anticipated
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 Winds)	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 anticipates that the following future major assets may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan:

- New shopping Center Developments
- New Townhouse Project

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	Flood
2	Severe Weather
3	Severe Winter Weather
4	Tornado

5	Earthquake
6	Drought
7	Dam Failure

New Mitigation Actions

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

Action C - 9.15

Mitigation Action #15: Laminated Glass in Schools, Nursing homes, Shopping Centers					
Lead Agency/Department Organization: Village Services Director	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: General Fund	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: All
Year Initiated		2024			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		1,2,3,5			
Applicable Objective		1,2			
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:		Laminated Glass in Schools, Nursing homes, Shopping Centers			
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			

Action C - 9.16

Mitigation Action #16: Increase Awareness of Extreme Temperature Risk and Safety					
Lead Agency/Department Organization: Village Services Director	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund, Village will put the costs in their budget	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds) Severe Winter Weather
Year Initiated		2025			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		1,2,3,6			
Applicable Objective		1,5,9,10			
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)		Low			
Action/Implementation Plan and Project Description:		Increase awareness of extreme temperature Risk and Safety. The impacts of extreme temperatures on public health can be lessened if citizens know how to prepare and protect themselves. Educating citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. Assist vulnerable populations measures should be taken to ensure vulnerable populations are adequately protected from the impacts of extreme temperatures. By organizing outreach to vulnerable populations, including establishing and promoting accessible heating or cooling centers in the community. Requiring minimum temperatures in			

	<p>housing/landlord codes. Also, encouraging utility companies to offer special arrangements for paying heating bills, if not already required by state law.</p> <p>Creating a database to track those individuals at high risk of death, such as the elderly, homeless, etc.</p> <p>Educate property owner's extreme cold may cause water pipes to freeze and burst, and freezing Pipes cause flooding inside a building. So, educating homeowners and builders on how to protect their pipes, including locating water pipes on the inside of building insulation or keeping them out of attics, crawl spaces, and vulnerable outside walls. Letting homeowners that letting a faucet drip during extreme cold weather can prevent the buildup of excessive pressure in the pipeline and avoid bursting.</p> <p>Partnerships between local, state, and regional entities help expand resources and improve coordination. Developing a stormwater committee that meets regularly to discuss issues and recommend projects. Work with our regional watershed council to help bring together resources for comprehensive analysis, planning, decision-making, and cooperation. Establishing watershed-based planning initiatives to address the flood hazard with neighboring jurisdictions. Forming a citizen plan implementation steering committee to monitor progress on local mitigation actions. Include a mix of representatives from neighborhoods, local businesses, and local government.</p>
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

During the 2024 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

Action C - 9.1

Mitigation Action #1: 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.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: BRIC, HMGP	Estimated Projected Completion Date: Long-term (depending on funding)	Hazard(s) Mitigated: All hazards
Year Initiated		2014			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		3			
Applicable Objective		7, 13			
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:					
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 C - 9.2

Mitigation Action #2: Continue to support the countrywide 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-term	Hazard(s) Mitigated: All Hazards
Year Initiated		2014			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		1,2,3,4,5,6			
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 C - 9.3

Mitigation Action #3: 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 Hazards
Year Initiated		2014			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		2,3			
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 = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action C - 9.4

Mitigation Action #4: Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: All Hazards

Year Initiated	2014
Applicable Jurisdiction	Village of Crestwood
Applicable Goal	2,6
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)	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 C - 9.5

Mitigation Action #5: 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: General Fund	Estimated Projected Completion Date: Short-term and ongoing	Hazard(s) Mitigated: Flooding
Year Initiated	2014				
Applicable Jurisdiction	Village of Crestwood				

Applicable Goal	2,3,4
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 C - 9.6

Mitigation Action #6: Where feasible, implement a program to record high water marks following high-water events.					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund; FEMA Public Assistance (PA)	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding, Severe Weather
Year Initiated	2014				
Applicable Jurisdiction	Village of Crestwood				
Applicable Goal	2,3				
Applicable Objective	3, 6, 9				
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:	
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 C - 9.7

Mitigation Action #7: Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.					
Lead Agency/Department Organization: Farnsworth Engineering	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All Hazards
Year Initiated	2014				
Applicable Jurisdiction	Village of Crestwood				
Applicable Goal	1,3				
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:					
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
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Action C - 9.8

Mitigation Action #8: Consider developing and implementing a Capital Improvements Program 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 the general fund (if implemented)	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: All Hazards
Year Initiated		2014			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		2,3			
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:					
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 C - 9.9

Mitigation Action #9: Build dike on 135th Street.					
Lead Agency/Department Organization: MWRD	Supporting Agencies/ Organizations:	Estimated Cost: \$1,200,000; Low	Potential Funding Source: MWRD	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		1,2,3			
Applicable Objective		1, 2, 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:		Going into a 12M project to remove the dyke and install proper drainage to ensure water does not get from the forest preserves into homes and streets.			
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		I			

Action C - 9.11

Mitigation Action #9: Laramie/Tpk install retention pond.
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Lead Agency/Department Organization: MWRD	Supporting Agencies/ Organizations:	Estimated Cost: \$125,000; Low	Potential Funding Source: MWRD	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of Crestwood			
Applicable Goal		1,2,3			
Applicable Objective		1, 2, 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:		In phase 2 Engineering. Seeking funding to complete this project.			
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		I			

Action C - 9.12

Mitigation Action #12: Create Family Disaster plans and Supply Kits					
Lead Agency/Department Organization: Village Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding, Lightning, Snow, Blizzard, Extreme Cold,

					Ice Storms, Tornado
Year Initiated	2019				
Applicable Jurisdiction	Village of Crestwood				
Applicable Goal	1,2,5,6				
Applicable Objective	6				
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)	Citizens 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:					
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 C - 9.13

Mitigation Action #13: Flood Control & Streambank Stabilization Project along Tinley Creek					
Lead Agency/Department Organization: MWRD	Supporting Agencies/ Organizations:	Estimated Cost: \$7,222,220	Potential Funding Source: BRIC, HMGP	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding
Year Initiated	2019				

Applicable Jurisdiction	Village of Crestwood
Applicable Goal	1
Applicable Objective	1
Cost Analysis (Low, Medium, High)	High
Priority and Level of Importance (Low, Medium, High)	Unknown
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Unknown
Action/Implementation Plan and Project Description:	ID: TICR-3 Contract: 10-883-AF Watershed: Cal-Sag Channel Location: Crestwood, IL Description: Increased conveyance capacity of Tinley Creek downstream of Central Avenue and stabilized approximately 1,000 linear feet of Tinley Creek, downstream of the conveyance improvements. FEMA Letter of Map Revision is effective.
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	I 2019: Construction substantially complete.

Action C - 9.14

Mitigation Action #14: Flood Control in the vicinity of 135 Street and Central Avenue					
Lead Agency/Department Organization: MWRD	Supporting Agencies/ Organizations: City of Chicago	Estimated Cost: \$9,250,000	Potential Funding Source: BRIC, HMGP	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding
Year Initiated	2019				
Applicable Jurisdiction	Village of Crestwood: City of Chicago				

Applicable Goal	1
Applicable Objective	1
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:	ID: Crestwood 1 Contract: 14-258-5C Watershed: Cal-Sag Channel Location: Crestwood, IL Description: Preliminary engineering analysis to identify and evaluate solutions to address flooding in the vicinity of 135th Street and Central Avenue.
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	I 2019: Final Design

Completed Actions

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

Completed Action Items
Complete Tinley Creek improvements.

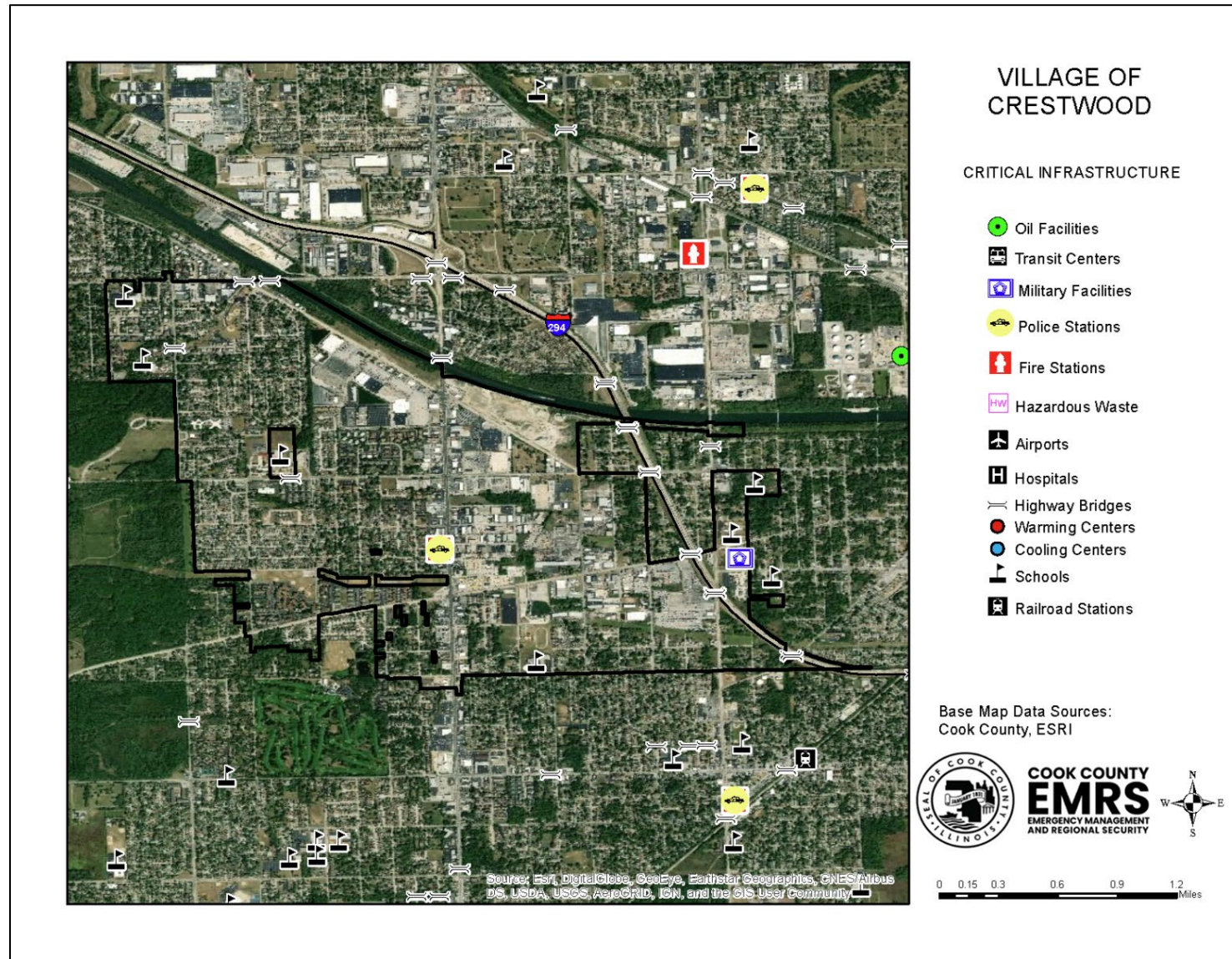
Future Needs to Better Understand Risk/Vulnerability

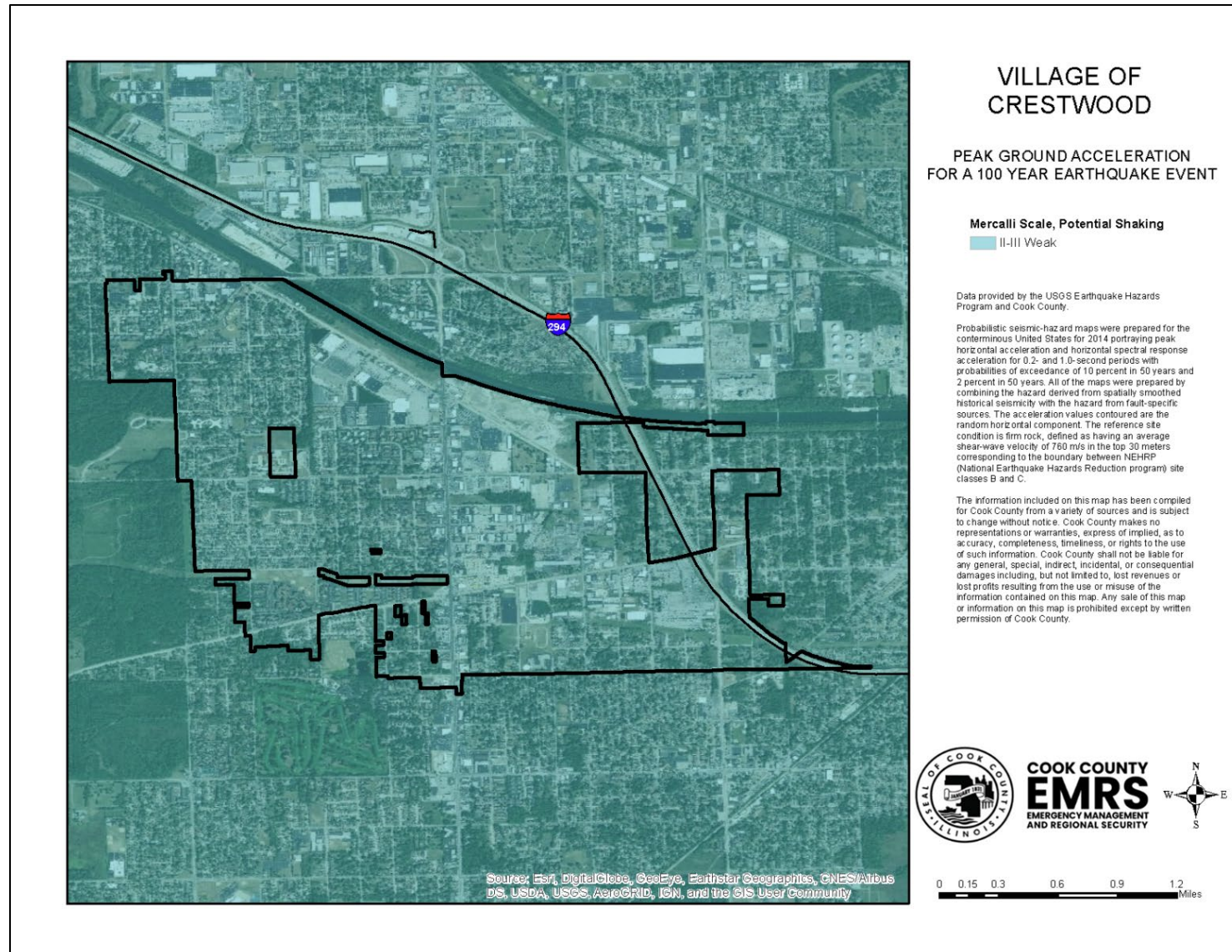
Being worked on by Village of Crestwood Engineers

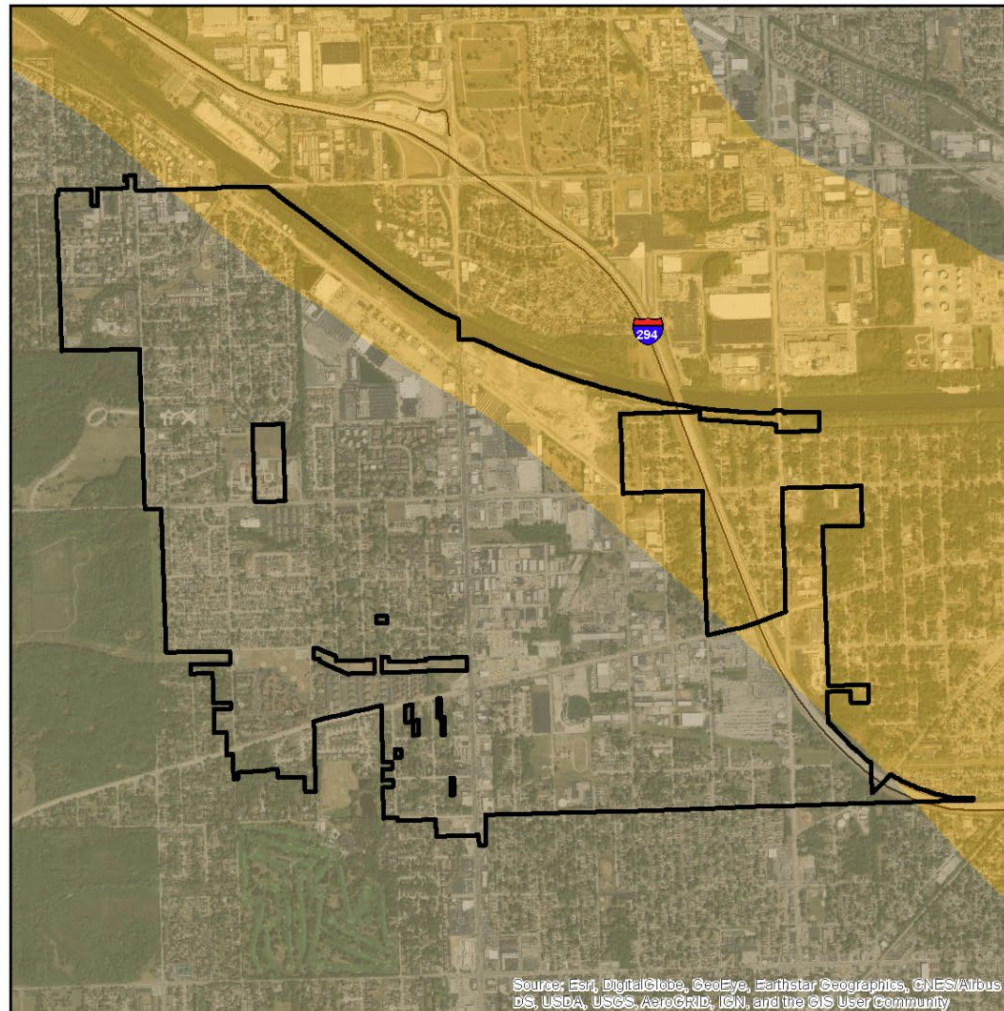
Additional Comments

No additional comments at this time.

Hazard Mapping







VILLAGE OF CRESTWOOD

NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

TYPE

- C - Very Dense Soil, Soft Rock
- D - Stiff Soil
- F- Site Specific Evaluation

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

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2769 Map of Surficial Deposits and Materials in the Eastern and Central United States (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean 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 Liquefaction Susceptibility maps. The procedures outlined in the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 2002) were followed to produce the soil site class maps. CUSEC State Geologists used the entire column of soils material down to bedrock and did not include any bedrock in the calculation of the average shear wave velocity for the column, since it is the soil column and the difference in shear wave velocity of the soils in comparison to the bedrock which influences much of the amplification.

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 0.1 0.2 0.4 0.6 0.8 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>.

