Blue Island

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: 1872

Current Population: The 2020 U.S. Census population was 22,560. The 2022 U.S. Census estimate indicated the population was 21,714.

Population Growth: The overall population has decreased 7.21 percent between 2016 and 2022.

Location and Description: Blue Island enjoys a unique position in the south suburbs, possessing uncommon assets and considerable potential for future investment and growth along Chicago's southwestern border. With an extensive network of major roadways (I-57, Tri-State Tollway, Dixie Highway) and convenient public transit connections to and from the greater Chicago region (via six Metra stations, Pace Bus service, and the nearby CTA), Blue Island is well-matched to the needs of businesses and employees alike. Excellent health care and recreational facilities, walkable neighborhoods, and a diverse housing stock are other key assets that make Blue Island a great place to live, work, and raise a family.

Brief History: The city of Blue Island, Illinois, sits on a glacial bluff that rises out of the prairie south of Chicago. The thickly wooded crown of the ridge appeared to float in a sea of blue wildflowers, giving the town its name. Blue Island is one of the oldest communities in Cook County. In 1835, the settlement was a stop along the Vincennes Trail, an old Indian trail connecting Fort Dearborn with Vincennes, Indiana. The community experienced an early flurry of activity in the 1840s during the construction of a feeder canal (now the Calumet Sag Channel), which is now an integral part of the Illinois & Michigan Canal National Heritage Corridor, established in 1984 by Congress. In the 1860s, brick factories and railroads bolstered employment and growth in the city. During the famous 1894 Pullman Strike, riotous railroad workers and brick makers toppled cars and jeered at strikebreakers, prompting a federal injunction and suppression of the strike nationwide. On July 4, 1894, the Fifteenth U.S. Infantry arrived in Blue Island and imposed martial law. The troops were stationed outside the local Rock Island Depot, which still stands in Blue Island today. The Old Western Historic District in Blue Island contains the home of the town's first settler, Stephen Jones, and one of the first hardware stores in the city, still in business after 100 years.

Climate: Blue Island, IL, gets 36 inches of rain and 39 inches of snow per year. The US average is 37 inches of rain and 25 inches of snow per year. The number of days with any measurable precipitation is 121. On average, there are 189 sunny days per year in Blue Island, IL. The July high is around 85 degrees and the January low is 17. The comfort index, which is based on humidity during the hot months, is a 46 out of 100, where higher is more comfortable. The US average on the comfort index is 44.

Governing Body Format: The City of Blue Island is governed by a 7-member City Council. This body of Government is responsible for the adoption and implementation of this plan. Day to day operations are overseen by the City Administrator and Deputy City Administrator. The City Administrator is responsible for overseeing the Fire, Police, Public Works, Human Resources, Golf Course, Recreation Center and Marketing Departments. The Deputy City Administrator is responsible for overseeing the Finance, Building, Community Development Departments as well as the Deputy Clerk and Collector positions.

Development Trends: Blue Island's residential parcels make up a majority of the land cover in the community. Single-family parcels cover 24.2 percent of the total land while multi-family units contribute an additional 5.7 percent. Out of the total housing units in the community, 57.4 percent consist of single-family units while the remaining 42.6 percent consists of multi-family units. A majority (27 percent) of multi-family buildings contain more than five units. A majority of the housing stock is well-maintained and consists of a mix of both aging and new construction. Also, the layout of neighborhoods such that single-family neighborhoods are interspersed with multi-family buildings has resulted in a positive residential character, allowing a variety of housing price points and types to co-exist. According to the Chicago Metropolitan Agency for Planning's (CMAP) Community Data Snapshot (Released in July 2023), a majority of housing units (93.2 percent) in Blue Island are valued at less than \$300,000. Compared to the Chicago region, this is a significantly high number. The significant number of affordable homes makes Blue Island a desirable destination for home buyers looking for options close to the City with convenient access to transit. Housing affordability and character differs significantly on either side of the Calumet-Sag Channel. The area north of the Calumet-Sag Channel contains several historic and well maintained neighborhoods within the Uptown District and north of 127th Street. In contrast, although newer home developments and attractive residential units exist south of the Channel, there are large areas that appear to need better maintenance and large vacant properties that detract from the overall neighborhood character. Mobile homes are present in small pockets to the south and east in Blue Island. According to the Homes for a Changing Region report, high vacancy rates, large percentage of economically distressed homes, and overcrowding are the three major issues faced by the City's housing stock. Blue Island offers incentives to businesses and has available properties as of 2024

Changes in Community Priorities: The City continues to work to address urban flooding issues throughout the community through locally funded projects, partnerships with other Cook County groups such as MWRD, RainReady and Build Up Cook, among others.

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, Ordinanc	es & Requirem	ents			
Building Code	Yes	No	No	Yes	Ordinance No. 12 168 adopted 2012
Zonings	Yes	No	No	Yes	Ordinance No. 2151 adopted 1971 and amended over time. Ordinance No. 2024-01 adopted 2024
Subdivisions	Yes	No	No	No	Ordinance No. 1767 adopted 1956
Stormwater Management	No	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765ILCS 77/) Residential Real Property Disclosure Act
Growth Management	Yes	No	No	No	Comprehensive Plan- June 26, 2012
Site Plan Review	Yes	No	No	No	Ordinance No. 2151 adopted 1971 and amended over time. Ordinance No. 12185 adopted 2012
Public Health and Safety	No	No	Yes	Yes	Cook County Board of Health.

Environmental Protection	No	No	No	No	
Planning Docume	ents				
General or Comprehensive Plan	Yes	No	No	No	City of Blue Island Transit- Oriented Development Plan (1999) City of Blue Island Comprehensive Plan (2012) South COD Plan (2011)
Is the plan equippo	ed to provide in	tegration to this m	nitigation plan?		Yes, Comp plan includes land use and environment elements.
Floodplain or Basin Plan	Yes	No	No	No	Ordinance No. 89-189 adopted 1989
Stormwater Plan	No	No	MWRD	No	Regional stormwater impacts are managed by MWRD. The Village lies within the Calumet-Sag watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
Capital Improvement Plan	No	No	No	No	
What types of cap			ss?		N/A
How often is the portion Habitat Conservation Plan	No	No	No	No	N/A Green River Pattern Book (2009)
Economic Development Plan	Yes	No	Yes	Yes	Blue Island Plan for Economic Development (2005).

					Calumet River Corridor Economic Development Vision and Strategy (2007)
Shoreline Management Plan	No	No	No	No	
Response/Recov	ery Planning				
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County EMRS
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County EMRS Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County EMRS
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County EMRS
Public Health Plans	No	No	Yes	No	Cook County DPH

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

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY			
Staff/Personnel Resources Available? Department/Agency/Position			
Planners or engineers with		Department of Building and Planning,	
knowledge of land development	Yes Building and Planning Commissioner,		
and land management practices		Supervisor of Buildings, City Engineer.	

Engineers or professionals trained in building or infrastructure construction practices	Yes	City Engineer
Planners or engineers with an understanding of natural hazards	No	N/A
Staff with training in benefit/cost analysis	No	N/A
Surveyors	No	N/A
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium, Department of Building and Planning, Building and Planning Commissioner, Supervisor of Buildings
Scientist familiar with natural hazards in local area		N/A
Emergency manager	Yes	Cook County EMRS
Grant writers	Yes	Department of Building and Planning, Building and Planning Commissioner, Supervisor of Building, Supervisor of Planning.

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE				
What department is responsible for floodplain management in your	Building and Planning			
jurisdiction?	Department			
Who is your jurisdiction's floodplain administrator? (department/position)	Building Official			
Are any certified floodplain managers on staff in your jurisdiction?	No			
What is the date of adoption of your flood damage prevention ordinance?	Ordinance No. 89-189 adopted 1989			
When was the most recent Community Assistance Visit or Community Assistance Contact?	01/12/1999			
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			
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, The city is interested in joining			

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:

156.002 Definitions

SUBSTANTIAL DAMAGE. Damage of any origin sustained by a structure whereby the cumulative percentage of damage subsequent to the adoption of this chapter equals or exceeds 50% 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.

- (1) Any reconstruction, rehabilitation, addition or improvement of a structure taking place subsequent to the adoption of this chapter in which the cumulative percentage of improvements equals or exceeds 50% of the market value of the structure before the improvement or repair is started.
- (2) **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.

- (3) 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.

156.020 Determining the Floodplain Designation

- (A) Check all new development sites to determine whether they are in a special flood hazard area (SFHA);
- (B) If they are in a SFHA, determine whether they are in a floodway, flood fringe or in a floodplain for which a detailed study has not been conducted and which drains more than one square mile; and
- (C) 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.

(Prior Code, § 157.020) (Ord. 08-023, passed 7-22-2008)

156.021 Professional Engineer Review

- (A) 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 city for review to ensure that the development meets §§ 156.060 through 156.062 or 156.075 through 156.077 of this chapter.
- (B) In the case of an appropriate use, the P.E. shall state in writing that the development meets the requirements of §§ <u>156.060</u> through <u>156.062</u> of this chapter.

(Prior Code, § 157.021) (Ord. 08-023, passed 7-22-2008)

156.026 Damage Determinations

Make damage determinations of all damaged buildings in the SFHA after a flood to determine substantially damaged structures which must comply with § 156.093(C) of this chapter.

(Prior Code, § 157.026) (Ord. 08-023, passed 7-22-2008)

156.090 Generally

In addition to the requirements found in §§ <u>156.045</u> through <u>156.047</u>, <u>156.060</u> through <u>156.062</u> and <u>156.075</u> through <u>156.077</u> of this chapter for development in flood fringes, designated floodways and SFHA or floodplains where no floodways have been identified, the following requirements shall be met.

(Prior Code, § 157.090) (Ord. 08-023, passed 7-22-2008)

156.093 Protecting Buildings

- (A) All buildings located within a 100-year floodplain, also known as a SFHA, shall be protected from flood damage below the flood protection elevation. This building protection criteria applies to the following situations:
- (1) Construction or placement of a new building or alteration or addition to an existing building valued at more than \$1,000 or 70 square feet;
- (2) Substantial improvements or structural alterations made to an existing building that increase the floor area by more than 20% or equal or exceed the market value by 50%. Alteration shall be figured cumulatively subsequent to the adoption of this chapter. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section;
- (3) Repairs made to a substantially damaged building. These repairs shall be figured cumulatively subsequent to the adoption of this chapter. If substantially damaged, the entire structure must meet the flood protection standards of this 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);
- (5) Installing a travel trailer or recreational vehicle on a site for more than 180 days per year; and
- (6) Repetitive loss to an existing building as defined in § <u>156.002</u> of this chapter. This building protection requirement may be met by one of the following methods set out in this section.
- (C) A residential or non-residential building may be elevated in accordance with the following.
- (6) Manufactured homes, and travel trailers to be installed on a site for more than 180 days, shall be elevated to or above the flood protection elevation; and, shall be anchored to resist flotation, collapse or lateral movement by being tied down in accordance with the Rules and Regulations for the Illinois Mobile Home Tie-Down Act, 210 ILCS 120, 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 outside of a manufactured home park or subdivision; in a new manufactured home park or subdivision; in an expansion to an existing manufactured home park or subdivision; or 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.
- (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	N/A	N/A	
Building Code Effectiveness Grading Schedule	Yes	Unknown	N/A	
Public Protection/ISO	Yes	Class 3	2019	
StormReady	Yes	Gold (Countywide)	2014	
Tree City USA	Yes	N/A	2023	

Opportunities to Expand and Improve Capabilities

Opportunities to expand and improve capabilities include expanding capabilities related to grant writers, ability to fund local match for mitigation grants, improve GIS capabilities, improve building codes or ordinances, etc.

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 Comprehensive Plan.
- 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: 0
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: N/A

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
Flood	-	9/3/2018	-
Severe Storms	-	7/24/2016	-
Severe Storms	DR-4116	2013	-
Severe Winter Storms	DR-1960	2011	-
Severe Storms/Flooding	DR-1935	2010	-
Severe Storms/Flooding	DR-1800	2008	-
Severe Storms/Flooding	DR-1729	2007	-
Hail	-	10/18/2007	-
Hail	-	6/25/2002	-
Severe Winter Storms	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	DR-776	1986	
Storms/Flooding	DR-776	1900	-

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.

Earthquake: Historical buildings and infrastructure that are more susceptible to earthquake damage, specifically City Hall, water mains, and large portions of the combined sewer system.

Flooding/Flash Flooding: The City of Blue Island has experienced multiple incidences of urban and flash flooding. Most of Blue Island is located in either moderate or high urban flooding susceptibility zones. During past incidences, flooding has been reported in places like the left lane of Interstate 57 near mile marker 351. Flooding in numerous structures along the Cal-Sag Channel has prompted the City to invest in mitigation of this hazard. The City additionally experiences widespread urban flooding primarily as a result of the age and capacity of the combined sewer system, specifically in the low-lying areas of the City such as the Washington Street and Vermont St near California.

Thunderstorm Wind: Blue Island has experienced numerous thunderstorm wind events throughout the village. Impacts have included damage to property (particularly in the industrial areas of the village), trees, and power lines.

Severe Weather: The City has mobile home communities that are extremely vulnerable to high winds and tornadoes. The City also has a large low income population that is vulnerable to extreme heat and cold weather.

Tornado: The City has mobile home communities that are extremely vulnerable to high winds and tornadoes.

Severe Winter Weather: The City has mobile home communities that are extremely vulnerable to high winds and tornadoes. The City also has a large low income population that is vulnerable to extreme heat and cold weather.

Indicator	Number	Percent
Families in poverty	1,328	14.2%
People with disabilities	4,275	10.3%
People over 65 years	4,494	10.8%
People under 5 years	2,887	7%
People of color	34,797	83.9%
Black	15,940	38.4%
Native American	115	0.3%
Hispanic	18,174	43.8%
Difficulty with English	2,782	7.2%
Households with no car	1,877	13.8%
Mobile homes	1,101	8.1%

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.

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

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

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

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 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	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,	No Change is Anticipated		
Fog, High Wings)	No Change is Anticipated		
Severe Winter Weather (Ice Storms, Heavy Snow,	No Change is Anticipated		
Blizzards, Extreme Cold)	No Change is Anticipated		
Tornado	No Change is Anticipated		
Wildfire (Wildfire Smoke)	No Change is Anticipated		

The City has a large population of underserved and socially vulnerable residents that are susceptible to flooding and extreme weather conditions.

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	Tornado		
4	Earthquake		
5	Flood		
6	Drought		
7	Dam Failure		

New Mitigation Actions

No new mitigation actions were identified during this update.

Ongoing Mitigation Actions

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

Mitigation Action #B - 9.1: SC meters.	CADA (supervisory c	ontrol and data acquis	tion) system upgra	ades and installatio	on of new water	
Lead Agency/Department Organization:	Supporting Agencies/	Estimated Cost: \$4,000,000;	Potential Funding	Estimated Projected	Hazard(s) Mitigated:	
Water Department, Public Works	Organizations:	Medium	Source: General Fund, CDBG	Completion Date: Short-term	Drought	
Year Initiated	•	2014	·	•	·	
Applicable Jurisdiction		City of Blue Island				
Applicable Goal		1, 2, 3				
Applicable Objective		1, 2, 4, 7, 9				
Cost Analysis (Low, Medium	, High)	Medium				
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:		The City's SCADA system is currently under review for proposed upgrades. A committee has been formed to facilitate upgrading the City's water infrastructure and detailed plans and are under construction.				
Actual Completion Date or Ongoing Indefinite						
Project Status & Changes in	Priority					
Completion status legend:		0				
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 #B - 9.2: Construction of new pump station, reservoirs, values, and water mains.						
Lead Agency/Department Organization: Water Department, Public Works	Supporting Agencies/ Organizations:	Estimated Cost: \$40,000,000; High	Potential Funding Source: General Fund, CDBG, EPA	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Drought, Flood	
Year Initiated		2014	<u>.</u>			
Applicable Jurisdiction		City of Blue Island				
Applicable Goal		1, 2, 3				
Applicable Objective		1, 2, 4, 7, 9				
Cost Analysis (Low, Medium	ı, 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:		The City is planning maintenance to the Vincennes Road pump station, and upgrades at both the Vincennes and Highland pump stations currently under construction.				
Actual Completion Date or C	Ongoing Indefinite					
Project Status & Changes in Completion status legend: N = New; I = In Progress Towa O = Ongoing Indefinitely; C = I R = Want Removed from Anne Taken/Delayed	rd Completion; Project Completed;	0				

Mitigation Action #B - 9.4: W to prevent future damage. G		· ·		ing structures in ha	azard-prone areas	
Lead Agency/Department Organization:	Supporting Agencies/	Estimated Cost: High	Potential Funding	Estimated Projected	Hazard(s) Mitigated:	
Water Department, Public	Organizations:		Source:	Completion	All	
Works, Engineering			BRIC, HMGP	Date: Long-term		
Year Initiated		2014				
Applicable Jurisdiction		City of Blue Island				
Applicable Goal		1, 2, 3				
Applicable Objective		1, 2, 4, 7, 9				
Cost Analysis (Low, Medium	, High)	High				
Priority and Level of Importance (Low, Medium, High)		High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High				
Action/Implementation Plan and Project Description:		The City has acquired a property in a flood prone area and is proposing to use the area for flooding mitigation if funding becomes available. The City has applied for partnership funding with the MWRD.				
Actual Completion Date or C	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		o				
Taken/Delayed						

Mitigation Action #B - 9.5: Comprehensive study of drought vulnerability.						
Lead Agency/Department	Supporting	Estimated Cost:	Potential	Estimated	Hazard(s)	
Organization:	Agencies/	\$45,000; Medium	Funding	Projected	Mitigated:	
Water Department, Public	Organizations:		Source:	Completion	Drought	
Works, Engineering			HMGP,	Date:		
			General Fund	Short-term		
Year Initiated		2014				
Applicable Jurisdiction		City of Blue Island				
Applicable Goal		1, 2, 3, 5, 6				
Applicable Objective		3, 4, 6, 8				
Cost Analysis (Low, Medium	, High)	Medium				
Priority and Level of Importa	nce (Low,	High				
Medium, High)						
Benefits of the Mitigation Pro	oject (Loss	Low				
Avoided or Issue Being Mitigat	ed)	LOW				
Action/Implementation Plan	and Project	No action was taken on this step in the past year. Work will begin on this when				
Description:		funding becomes available.				
Actual Completion Date or C	Ingoing Indefinite					
Project Status & Changes in	Priority					
Completion status legend:						
N = New; I = In Progress Toward Completion;		0				
O = Ongoing Indefinitely; C = F						
R = Want Removed from Anne	x; X = No Action					
Taken/Delayed						

Mitigation Action #B - 9.7: Flood impact study.								
Lead	Supporting	Estimated	Potential Funding	Estimated	Hazard(s)			
Agency/Department	Agencies/	Cost:	Source:	Projected	Mitigated:			
Organization:	Organizations:	High			Flood			

Engineering/Public Works	Engineering, MWRD, City Administration		MWRD, Flood Prevention Program, General Fund, Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) Program, Community Development Block Grant (CDBG)	Completion Date: Short-term				
Year Initiated	Year Initiated		2024	•				
Applicable Jurisdiction	Applicable Jurisdiction		City of Blue Island					
Applicable Goal	Applicable Goal		1,2,3,4,5,6					
Applicable Objective		1,2,6,7,8,12,13						
Cost Analysis (Low, Mediu	m, High)	High						
Priority and Level of Import Medium, High)	ance (Low,	High						
Benefits of the Mitigation P Avoided or Issue Being Mitig	• •	High						
Action/Implementation Plan and Project Description:		MWRD is studying the area near 119th Street and Washington. In 2024, the City is coordinating with the MWRD on the design of a flood mitigation project for the Washington Street area that is subject to extensive and repeated flooding.						
Actual Completion Date or	Actual Completion Date or Ongoing Indefinite							
Project Status & Changes i	n Priority							
Completion status legend:								
N = New; I = In Progress Toward Completion;		1	as updated in 2024. Prior	ity for this project w	as elevated to			
O = Ongoing Indefinitely; C = Project Completed;		High as part of tl	he 2024 update.					
R = Want Removed from Ann	nex; X = No Action							
Taken/Delayed								

Mitigation Action #B - 9.8: In the City.	stallation of a separ	ate storm sewer system	to replace the cu	rrent combined sew	ver service within	
Lead Agency/Department Organization: Water Department	Supporting Agencies/ Organizations:	Estimated Cost: \$50,000,000; High	Potential Funding Source: MWRD Phase II. CDBG-DR, BRIC, HMGP	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flood, Severe Weather	
Year Initiated		2014				
Applicable Jurisdiction		City of Blue Island				
Applicable Goal		1, 2, 3				
Applicable Objective		1, 2, 9				
Cost Analysis (Low, Medium	, High)	High				
Priority and Level of Importa Medium, High)	ince (Low,	High				
Benefits of the Mitigation Pro Avoided or Issue Being Mitigation	- '	High				
Action/Implementation Plan Description:	and Project	MWRD is studying the area near 119th Street and Washington.				
Actual Completion Date or C	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		0				

Mitigation Action #B - 9.9: Pe	Mitigation Action #B - 9.9: Perform a Community Risk Assessment of critical facilities and infrastructure.						
Lead Agency/Department Organization:	Supporting Agencies/	Estimated Cost: \$50,000	Potential Funding	Estimated Projected	Hazard(s) Mitigated:		
Planning, Engineering	Organizations:	,	Source: General Fund, EMRS, HMGP	Completion Date: Short-term	All		
Year Initiated	•	2014	•	•	•		
Applicable Jurisdiction		City of Blue Island					
Applicable Goal		1, 2, 3, 4, 5, 6					
Applicable Objective		3, 4, 5, 6, 8, 10, 11					
Cost Analysis (Low, Medium	, High)	\$50,000					
Priority and Level of Importa Medium, High)	Priority and Level of Importance (Low, Medium, High)		Medium				
Benefits of the Mitigation Pro Avoided or Issue Being Mitigat	•	High					
Action/Implementation Plan	•	No action was taken on this step in the past year. Work will begin on this when					
Description:	-	funding becomes available.					
Actual Completion Date or C	Ingoing Indefinite	-					
Project Status & Changes in	Priority						
Completion status legend:	-						
N = New; I = In Progress Towar O = Ongoing Indefinitely; C = F R = Want Removed from Anne Taken/Delayed	Project Completed;	0					

Mitigation Action #B 9.10: Up ordinance for the Cook Cour	-	d damage prevention o	rdinance. Conside	r the adoption of th	e IDNR model		
Lead Agency/Department Organization: Building and Planning	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund, HMGP, BRIC	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flood		
Year Initiated		2014					
Applicable Jurisdiction		City of Blue Island					
Applicable Goal		1, 2, 3					
Applicable Objective		2, 3, 10, 13					
Cost Analysis (Low, Medium	, High)	Low					
Priority and Level of Importa Medium, High)	nce (Low,	High					
Benefits of the Mitigation Pro Avoided or Issue Being Mitigat	• `	Medium					
Action/Implementation Plar Description:	and Project	The City follows the MWRD, FEMA and the IDNR model ordinance.					
Actual Completion Date or C	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					

Mitigation Action #B - 9.16: H	old bi-annual meeti	ng to discuss and upd	ate hazard mitigati	on plan.			
Lead Agency/Department	Supporting	Estimated Cost:	Potential	Estimated	Hazard(s)		
Organization:	Agencies/	\$2,500 per year	Funding	Projected	Mitigated:		
City of Blue Island	Organizations:	(estimated staff	Source:	Completion	All		
Administration		cost)	General Fund	Date:			
				Ongoing 2019			
				start			
Year Initiated		2019					
Applicable Jurisdiction		City of Blue Island					
Applicable Goal		All					
Applicable Objective		3, 4, 5, 8, 10, 11					
Cost Analysis (Low, Medium	∐iah\	Low-The project cou	ld be funded under	the existing budget.	The project is part		
Cost Analysis (Low, Medium	, nigii)	of or can be part of an ongoing existing program.					
Priority and Level of Importance (Low,		High Dringing					
Medium, High)		High Priority					
Benefits of the Mitigation Pro Avoided or Issue Being Mitigat	Benefits of the Mitigation Project (Loss		These bi-annual meetings will allow the City to update and maintain the existing HMP, as well as create new ideas to improve the communities overall resiliency. Project will have a long-term impact on the reduction of risk				
Avoided of 1994 Being Filligat	ou,	exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.					
Action/Implementation Plan and Project Description:		Blue Island will hold bi-annual mitigation planning meeting to discuss plan updates, implementation, and develop new ideas for incorporation into the existing plans.					
Actual Completion Date or C	ngoing Indefinite						
Project Status & Changes in	Priority						
Completion status legend:							
N = New; I = In Progress Toward Completion;O = Ongoing Indefinitely; C = Project Completed;		0					
R = Want Removed from Anne Taken/Delayed	x; X = No Action						

Mitigation Action #B - 9.17: C	onduct stormwater	storage and conveyar	ce improvement	s to address flooding	g of approximately	
45 structures in the Washing	ton Street Area.					
Lead Agency/Department Organization: City of Blue Island Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: MWRD	Estimated Projected Completion Date:	Hazard(s) Mitigated: Flood	
Year Initiated		2019		Ongoing		
Applicable Jurisdiction		City of Blue Island				
Applicable Goal		2,3,4				
Applicable Objective		2,9				
Cost Analysis (Low, Medium	Cost Analysis (Low, Medium, High)					
Priority and Level of Importance (Low, Medium, High)		High				
Benefits of the Mitigation Pro Avoided or Issue Being Mitigat	efits of the Mitigation Project (Loss High					
Action/Implementation Plan Description:	ID: Blue Island 1 Contract: 14-260-5F Watershed: Cal-Sag Channel Location: Blue Island, IL Stormwater storage and conveyance improvements to address flooding of approximately 45 structures.					
Actual Completion Date or O	ngoing Indefinite					
Project Status & Changes in	Priority					
Completion status legend: N = New; I = In Progress Towar O = Ongoing Indefinitely; C = P R = Want Removed from Anne Taken/Delayed	_		dditional flood contro solution is selected.	l alternatives in		

Mitigation Action #B - 9.18: B	uilding Maintenance	e/Resilience				
Lead Agency/Department Organization: City of Blue Island Administration	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund TP Visa Rewards	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: All	
Year Initiated	1	2023	-	1	1	
Applicable Jurisdiction		City of Blue Island				
Applicable Goal		All				
Applicable Objective		All				
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	•	Medium				
Action/Implementation Plan	•					
Description:	•					
Actual Completion Date or C	Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		o				

Completed Actions

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

Completed Action Items

GIS mapping of critical infrastructure

Continue to support the countywide actions identified in this plan.

Actively participate in the plan maintenance strategy identified in this plan.

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.

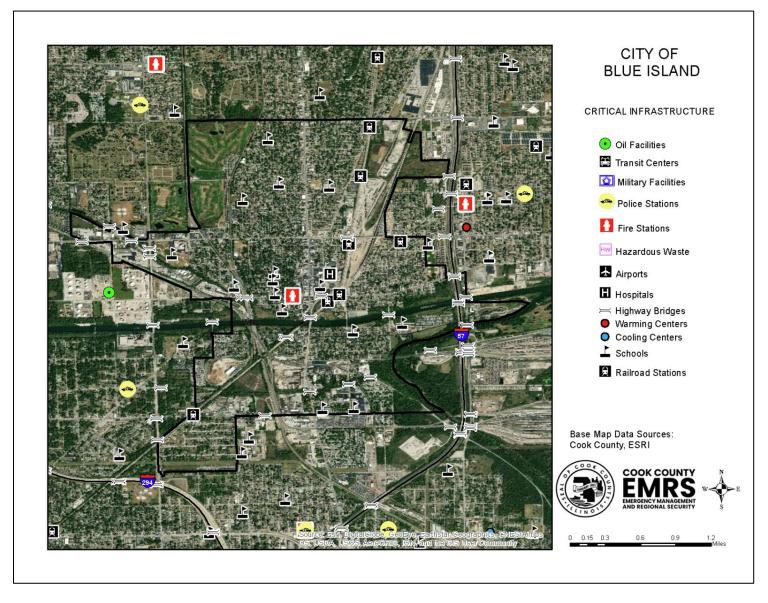
Future Needs to Better Understand Risk/Vulnerability

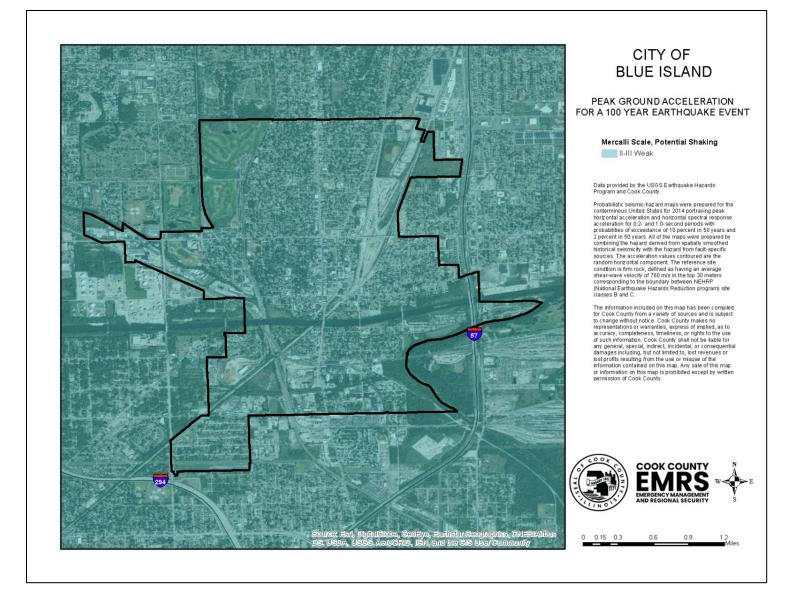
Nothing new has been reported

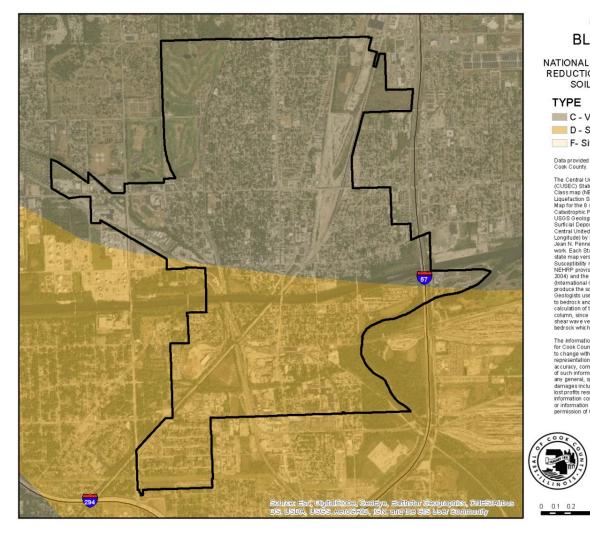
Additional Comments

No additional comments at this time.

Hazard Mapping







CITY OF **BLUE ISLAND**

NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

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 Soll Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The Catagrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-759 Map of Sufficial Deposits and Materials in the Eastern and Central United State (East of 102 degrees West Longitude) by David S. Fullerion, Charles A. Bush and Jean N. Pennell (2003) was the base map used for this 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 of implied, as to accuracy, completeness, timeliness, or rights to the use of such information. Cook County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of Cook County.



DISCLAIMER: The Cook County MWRDGC 100-year 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.

