THE CITY OF BLUE ISLAND
COOK COUNTY, ILLINOIS

RESOLUTION
NUMBER 2019-037

A RESOLUTION ADOPTING THE UPDATE OF THE COOK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

DOMINGO F. VARGAS, Mayor
Randy Heuser, City Clerk

DEXTER JOHNSON	ANNETTE ALEXANDER
FRED BILOTTO	WILLIAM CAZARES
NANCY RITA	KEVIN DONAHUE
TOM HAWLEY	BILL FAHRENWALD
MICHAEL MECH	JOHNNY RINGO HILL
CANDACE CARR	RAEANN CANTELO-ZYLMAN
ALECIA SLATTERY	JAMES KLINKER

Aldermen

RESOLUTION No. 2019-037

ADOPTING THE UPDATE OF THE COOK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

WHEREAS, the City of Blue Island recognizes the threat that natural hazards pose to people and property within our community; and

WHEREAS, the City of Blue Island recognizes the importance of reducing or eliminating vulnerability to disasters caused by natural hazards for the overall good and welfare of the community, and

WHEREAS, on October 10, 2000, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Act") which provides the legal framework for the Federal Emergency Management Agency (FEMA) mitigation, planning requirements for state, local, and tribal governments as a condition of mitigation grant assistance emphasizing the need for pre-disaster mitigation of potential hazards; and

WHEREAS, as a condition of future funding for mitigation projects, the Act requires jurisdictions to prepare and adopt a hazard mitigation plan to identify and address certain vulnerabilities that exist prior to and during a disaster; and

WHEREAS, FEMA supports post-disaster grant funding through the Hazard Mitigation Plan Grant program, which has as a condition of funding eligibility, a requirement for jurisdictions to prepare and adopt a hazard mitigation plan; and

WHEREAS, to maintain continued eligibility for FEMA mitigation grant assistance programs the Act requires a hazard mitigation plan be updated every five years; and

WHEREAS, in accordance with the Act's requirements, 121 Cook County jurisdictions engaged in the FEMA-prescribed mitigation planning process to prepare the 2019 Plan and its associated local hazard mitigation plan annexes; and **WHEREAS**, the 2019 Plan has been approved by the Illinois Emergency Management Agency and Federal Emergency Management Agency, Region V; and

NOW, THEREFORE, BE IT RESOLVED,

1. The City of Blue Island hereby accepts, approves and adopts in its entirety, Volume 1, the Countywide Mitigation Actions in Volume 2; and the City of Blue Island Jurisdictional Annex of Volume 2 of the 2019 Cook County Multi-Jurisdictional Hazard Mitigation Plan.

2. The City will continue to participate in the updating and revision of the 2019 Plan with another plan review and revision to occur within a five-year cycle, and designated staff will provide annual progress reports on the status of implementation of the 2019 Plan to the president of the City council.

ADOPTED this 26th day of November, 2019, pursuant to roll call as follows:

	YES	NO	ABSENT	PRESENT	ABSTAIN
Alderman JOHNSON	X				
Alderman ALEXANDER			X		
Alderman BILOTTO	X				
Alderman CAZARES	X				
Alderman RITA			X		
Alderman DONAHUE			X		
Alderman HAWLEY	X				
Alderman FAHRENWALD	X				
Alderman MECH	X				
Alderman HILL	X				
Alderman CANTELO-ZYLMAN	X				
Alderman CARR	X				
Alderman SLATTERY			X		
Alderman KLINKER	X				
Mayor DOMINGO F. VARGAS					
TOTAL	10		4		

APPROVED: this 26th day of November, 2019.

Domingo F. Vargas

MAYOR OF THE CITY OF BLUE ISLAND,
COUNTY OF COOK AND STATE OF ILLINOIS

ATTESTED and Filed in my office this
26th day of November, 2019.

Kenny Hawley

CITY CLERK

Exhibit A

DEPARTMENT OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT
WILLIAM BARNES
EXECUTIVE DIRECTOR
69 W. WASHINGTON, SUITE 2600 ● Chicago, Illinois 60602 ● (312) 603-8180

Cook County Multi-Jurisdictional Hazard Mitigation Plan Update (HMP)

Information Summary Sheet

April 2019

In 2014, the Cook County Department of Homeland Security and Emergency Management (DHSEM) prepared a **Cook County Multi-Jurisdictional Hazard Mitigation Plan (HMP).**

To maintain eligibility for federal grant funds, the HMP must be updated every five years. For Cook County, documents and information must be submitted by Summer 2019.

In order for your municipality to be included in the 2019 Update of the HMP, we will need the following:

- Sign and return the Statement of Intent to Participate (sent in April 2019)
- A Point of Contact (POC)
- Support for the HMP Steering Committee
- Provide information/data requested
- Attendance and active participation by your POC in meetings/workshops to which they are invited
- A ranking of the potential risks to your community
- An update to the capability assessment
- An update to the Jurisdictional Annex
- Identification and prioritization of jurisdiction-specific actions
- Adoption of the Final Plan

What is an HMP?

An HMP is "the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision-makers as they commit resources to reducing the effects of natural hazards." (44 CFR 201.6) **HMPs establish and maintain eligibility for grant funds.** The planning process is as important as the plan itself because it creates a framework for governments to reduce the negative impacts from future disasters on lives, property and the economy. Hazard mitigation planning can significantly reduce the physical, financial and emotional losses caused by disasters.

Cook County DHSEM will assist your municipality throughout the 2019 HMP Update process.

We appreciate your support in this effort so DHSEM can complete the update process quickly and efficiently.

In the interest of protecting Cook County communities, **thank you in advance for your help.**

If you have any questions, please do not hesitate to contact us:

Kimberly Nowicki, Regional Planner, Cook County DHSEM
Kimberly.nowicki@cookcountyil.gov

Gene Ryan, Chief of Planning, Cook County DHSEM
Gene.ryan@cookcountyil.gov

BLUE island
est. 1835

Office of the Mayor
p (708) 597 8602
f (708) 597 1221

City Clerk
p (708) 597 8603
f (708) 396 7602

City Treasurer
p (708) 396 7074
f (708) 597 1807

Building & Code Enforcement
p (708) 597 8606
f (708) 396 2686

Community Development
p (708) 396 7146
f (708) 597 1221

Finance
p (708) 396 7067
f (708) 597 1807

Fire Department
p (708) 396 7071
f (708) 597 1221

Marketing
p (708) 396 7035
f (708) 597 1221

Police Department
p (708) 396 7004
f (708) 597 8223

Public Works
p (708) 597 8604
f (708) 597 4260

Water & Sewer
p (708) 597 8605
f (708) 396 7062

Meadows Golf Club
p (708) 597 8604
f (708) 597 4260

City of Blue Island
13051 Greenwood Avenue
Blue Island, IL 60406
www.blueisland.org

Statement of Intent to Participate in the Cook County Multi-Jurisdictional Hazard Mitigation Plan Update

April 2019

Under 44 CFR Section 201.6 and the Disaster Mitigation Act of 2000, local governments must prepare and adopt a Hazard Mitigation Plan. To meet this requirement and to help reduce the loss of life and damage to property in the event of a natural disaster, our municipality intends to participate in a federally funded grant initiative to update the Cook County Multi-Jurisdictional Hazard Mitigation Plan Update (HMP). The Cook County Department of Homeland Security and Emergency Management (DHSEM) will serve as the lead agency for this initiative.

This statement of intent is nonbinding and is subject to any applicable local legal requirements, such as review by legal counsel and/or approval by legislative body/city council, if required. Municipalities will not be required to meet the necessary cash match for this initiative as this requirement will be met directly by Cook County on behalf of participating municipalities and agencies.

We understand that the planning process will include meetings with representatives and subject matter experts from participating municipalities and agencies. The subject of the meetings will be to:

- Inform and update the participants about the needs and methods for identifying and prioritizing hazards
- Obtain municipal cooperation in sharing information on hazards
- Determine possible projects to reduce the impact of future incidents involving hazards which are prerequisites to municipalities later applying for Hazard Mitigation grant funds

We understand that to be a participant in the Cook County Multi-Jurisdictional Hazard Mitigation Plan Update, we will be required to participate in these meetings and to share information.

City of Blue Island
13051 Greenwood Avenue
Blue Island, IL 60406
www.blueisland.org

We recognize the importance of having an updated Multi-Jurisdictional Hazard Mitigation Plan to help safeguard the lives and property of our citizens and commit to participating in this process with Cook County.

City of Blue Island Name of jurisdiction	Mayor Domingo F. Vargas Point of Contact #1 (POC) Name	Erik Alvarez Point of Contact #2 (POC) Name
Mayor Domingo F Vargas Name of Mayor/Chief Executive	City of Blue Island / Mayor POC #1 Agency/Title	Robinson Engineering/City Engineer POC #2 Agency/Title
Domingo F. Vargas Mayor/Chief Executive Signature	708-597-8602 POC #1 Phone Number	708-225-8217 POC #2 Phone Number
5-23-19 Date	dvargas@cityofblueisland.org POC #1 Email Address	ealvarez@reltd.com POC #2 Email Address

Review of the Action Plan: Table 2 reviews the action plan, reporting the status of each action. Reviewers of this report should refer to the Hazard Mitigation Plan for more detailed descriptions of each action and the prioritization process. Action items are located in table Hazard Mitigation Action Plan Matrix of your Annex. You can retrieve your annex at http://www.cookcountyhomelandsecurity.org/hazard-mitigation-plan

Address the following in the "status" column of the following table:

- Was any element of the action carried out during the reporting period?
- If no action was completed, why?
- Is the timeline for implementation or the action still appropriate?
- If the action was completed, does it need to be changed or removed from the action plan?

TABLE 2
ACTION PLAN MATRIX

Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
#B — 9.1	**SCADA (supervisory control and data acquisition) system upgrades and installation of new water meters**	
Status Description: Yes	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 are being developed. (Under Construction)	O
#B — 9.2	**Construction of new pump station, reservoirs, values and water mains**	
Status Description: Yes	The City is planning maintenance to the Vincennes Road pump station, and upgrades at both the Vincennes and Highland pump stations. (Under Construction)	O
#B — 9.3	**HTH Inspections for seismic integrity**	
Status Description: Action Taken?	This does not apply to BI.	R
#B — 9.4	**Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.**	
Status Description: Yes	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.	O

Completion status legend:

N = New **O** = Action ongoing toward completion
C = Project Completed **R** = Want Removed from Annex **X** = No action taken

TABLE 2
ACTION PLAN MATRIX

Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
#B — 9.5	**Comprehensive study of drought vulnerability**	
Status Description: No	No action was taken on this step in the past year. Work will begin on this when funding becomes available.	X
#B — 9.6	**GIS mapping of critical infrastructure**	
Status Description: Yes	The GIS maps are being updated as needed.	C
#B — 9.7	**Flood impact study**	
Status Description: Action Taken?	MWRD is studying the area near 119th Street and Washington.	O
#B — 9.8	**Installation of separate storm sewer system to replace current combined-sewer service within the City**	
Status Description: Action Taken?	MWRD is studying the area near 119th Street and Washington.	O
#B — 9.9	**Perform a Community Risk Assessment critical facilities and infrastructure**	
Status Description: Action Taken?	No action was taken on this step in the past year. Work will begin on this when funding becomes available.	X
#B — 9.10	**Update the City's flood damage prevention ordinance. Consider adoption of IDNR model ordinance for the Cook County region.**	
Status Description: Yes	The City follows the MWRD, FEMA and the IDNR model ordinance.	O

Completion status legend:

N = New **O** = Action ongoing toward completion

C = Project Completed **R** = Want Removed from Annex **X** = No action taken

TABLE 2
ACTION PLAN MATRIX

Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
#B — 9.11	**Continue to support the countywide actions identified in this plan.**	
Status Description: Yes	The City follows the MWRD, FEMA and the IDNR model ordinance.	C
# B — 9.12	**Actively participate in the plan maintenance strategy identified in this plan.**	
Status Description: Yes	The City abides to all County/FEMA rules and regulations.	C
#B — 9.13	**Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.**	
Status Description: Yes	The City abides to all FEMA rules and regulations	C
#B — 9.14	**Where feasible, implement a program to record high water marks following high-water events.**	
Status Description: Yes		C
#B — 9.15	**Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.**	
Status Description: Yes		C
#B — 9.16	**Hold bi-annual meetings to discuss the HMP, update plan, and discuss new ideas to improve community resiliency.**	
Status Description: Yes	New action item.	O

Completion status legend:

N = New **O** = Action ongoing toward completion

C = Project Completed **R** = Want Removed from Annex **X** = No action taken

Cook County & Municipalities: New Projects

To submit a new mitigation action, please fill out the form. Upon submission, you will receive an e-mail confirming your submission.

Name *

First Last

Email *

Phone Number

####

Mitigation Action (Please describe the mitigation action)

Hold bi-annual meeting to discuss mi

Year Mitigation Action was Initiated (example: 2019)

2019

Applicable Jurisdiction and/or Organization *

City of Blue Island

Lead Agency/Organization

City of Blue Island

Support Agency/Organization(s)

Applicable Goal (Please indicate if the mitigation goal is applicable to the new mitigation action/project). Check All That Apply

- [x] Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.
- [x] Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.
- [x] Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
- [x] Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.
- [x] Develop, promote, and integrate mitigation action plans.
- [x] Promote public understanding of and support for hazard mitigation.

Potential Funding Source (example: Grants, Local Funds, etc.)

Local cost for mitigation meetings.

Estimated Cost

$ 2,500 per year (estimated staff cost

Benefits (Loss Avoided). Please describe the benefits this mitigation action/project will offer to your community and/or organization.

This will allow Blue Island to actively r

Projected Completion Date (example: 2019)

2019 and ongoing

Priority and Level of Importance

	Low Priority	Medium Priority	High Priority
Please indicate the Priority/Level of Importance of this Mitigation Action/Project to your jurisdiction/organization.	○ 1	○ 2	◉ 3

Benefit Analysis

	Low—Long-term benefits of the project are difficult to quantify in the short term.	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.	High—Project will provide an immediate reduction of risk exposure for life and property.
Please indicate the Benefit ratings for this Mitigation Action/Project.	○ 1	◉ 2	○ 3

Cost Analysis

	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	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.	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).

	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	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.	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
Please indicate the Cost ratings for this Mitigation Action/Project.	◉ 1	○ 2	○ 3

Mitigation Action and Implementation Plan. Please include a more detailed project description.

Blue Island will hold bi-annual hazard mitigation planning meetings to discuss plan updates, implementation, and develop new ideas for incorporation into the existing plans.

Hazard(s) that will be mitigated by this project. Please select all that apply.

- ☑ All Hazards
- ☐ Drought
- ☐ Flood
- ☐ Lightning
- ☐ Fog
- ☐ Snow
- ☐ Extreme Cold
- ☐ Tornado
- ☐ Nuclear Power Plant Incident
- ☐ Widespread power outage
- ☐ Coastal Erosion
- ☐ Dam/levee failure
- ☐ Earthquake
- ☐ Extreme Heat
- ☐ Hail
- ☐ High Wind
- ☐ Blizzard
- ☐ Ice Storms
- ☐ Epidemic or pandemic
- ☐ Secondary impacts from mass influx of evacuees
- ☐ Hazardous Materials Incident

Metropolitan Water Reclamation District *of* Greater Chicago

Press Release

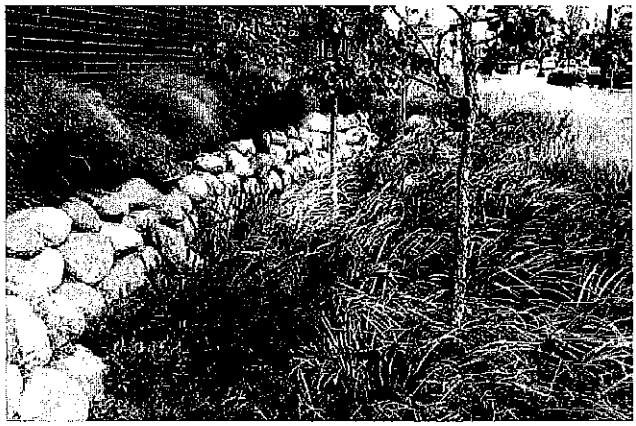
Allison Fore
Public and Intergovernmental Affairs Officer
312.751.6633
allison.fore@mwrd.org
100 East Erie Street, Chicago, Illinois 60611

For immediate release
June 14, 2017

Calling all green infrastructure projects: MWRD welcomes government partners

Applications are being accepted until July 14 by the Metropolitan Water Reclamation District of Greater Chicago (MWRD) to help fund local government projects that utilize green infrastructure (GI) to better manage stormwater.

GI is designed to capture water and allow it to infiltrate into the ground before it enters the traditional conveyance system. This helps to reduce the amount of water flowing through pipes that are often overwhelmed by increasingly intense rain events experienced throughout the region. The MWRD seeks local governmental entities, including municipalities, townships and county agencies, to submit potential GI projects within the MWRD's service boundaries.



A rain garden is an effective form of green infrastructure that mimics the natural environment by handling precipitation where it falls. The MWRD is seeking government partners to help construct more of these projects in Cook County.

"We are excited to launch this application process to collaborate with communities on green infrastructure projects that reduce flooding and promote clean water. If your community has a potential project in mind, we want to hear from you," said MWRD President Mariyana Spyropoulos. "As the regional authority on stormwater for Cook County, we have seen how the natural long-term benefits of green infrastructure can provide solutions to managing the stormwater that confronts our communities each spring and summer."

The MWRD also recognizes that GI practices can supplement conventional gray infrastructure, which traditionally enlists concrete pipes to convey stormwater. GI, on the other hand, mimics the natural environment by handling precipitation where it falls by detaining and infiltrating runoff through rain gardens, permeable pavement, cisterns and other practices.

GI's impact is not limited to flooding concerns. GI can reduce wet-weather flows to combined sewer systems, reducing combined sewer overflows to local waterways and protecting water quality in these vital waterways. GI also reduces runoff volumes and improves water quality in separate sewer service areas. In addition, GI provides social benefits that enhance the livability of communities.

"The Metropolitan Water Reclamation District of Greater Chicago acknowledges the vital role of local government in addressing flooding concerns through the innovative use of green infrastructure. They are the first to experience the influx of water and the first to be impacted by flooding concerns," said MWRD Commissioner Martin J. Durkan. "That's why we want to partner with these local communities to help fund and complete these projects and better prepare us for today's emerging water concerns."

The MWRD intends to provide partial funding towards the construction of selected GI installations on public property. Selected project *(continued)*

Calling all green infrastructure projects: *(continued)*

partners will be expected to provide long-term operation and maintenance of the installed GI practices, among other responsibilities to be defined through intergovernmental agreements with the MWRD and the selected applicant partners. The MWRD will prioritize the submitted projects based on the project's stormwater benefits, the capability of the applicant to operate and maintain the GI practices, and the visibility of the project in terms of providing educational opportunities amongst other factors.

Public agencies within the MWRD's corporate limit are encouraged to submit an application using this form. Eligibility requirements and instructions are included in the application form. The deadline for submission is July 14, 2017. For more information, visit www.mwrd.org or click here.

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CHAPTER 8.
CITY OF BLUE ISLAND ANNEX

8.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

Donald Marchbanks, Chief of BIHSEMA
13051 Greenwood Avenue
Blue Island, IL 60406
Telephone: 708-396-7011
Email Address: dmarchbanks@cityofblueisland.org

Alternate Point of Contact

Daniel Reda, Fire Chief
2450 Vermont Street
Blue Island, IL 60406 Telephone:
708-396-7071
Email Address: dreda@cityofblueisland.org

8.2 JURISDICTION PROFILE

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

- **Date of Incorporation** 1872
- **Current Population:** 23,706 as of 2010
- **Population Growth:** Based on data from the US Census the City of Blue Island has seen a growth in population of less than 1% from 23,480 to 23,706 since the 2000 census.
- **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 per year. The US average is 37. Snowfall is 39 inches. The average US city gets 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. The January low is 17. Our 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 14-member City Council. This body of Government is responsible for the adoption and implementation of this plan. The City consist of three divisions which Division of Constituent Services, Division of Municipal Services and Division of Public Safety each charged with the management and over site of additional city departments. The Division of Constituent Services is responsible for the Departments of Finance, Risk Management, Senior Citizens, Planning and Marketing. The Division of Municipal Services is responsible for the Departments of Water, Public Works, Building and Golf. The Division of Public Safety is responsible for the Departments of Police, Fire/Emergency Management, 911, Inspections, Housing Courts and Parking Courts.
- **Development Trends**: Blue Island's residential parcels make up a majority of the land cover in the community. Single-family parcels cover 28 percent of the total land while two- to three-story multi-family units contribute an additional 9 percent. Out of the total housing units in the community, 46 percent consist of single-family units while the remaining 54 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 2007-2010 American Community Survey, a majority of housing units (92.1 percent) in Blue Island are valued at less than $250,000. 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. Due in part to the national foreclosure crisis, vacant units nearly doubled in Blue Island in the past decade from 503 in 2000 to 920 in 2009. This represents an 83 percent increase over the period.

8.3 CAPABILITY ASSESSMENT

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 8-1. The assessment of the jurisdiction's fiscal capabilities is presented in Table 8-2. The assessment of the jurisdiction's administrative and technical capabilities is presented in Table 8-3. Information on the community's National Flood Insurance Program (NFIP) compliance is presented in Table 8-4. Classifications under various community mitigation programs are presented in Table 8-5.

TABLE 8-1.
LEGAL AND REGULATORY CAPABILITY

	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Yes	No	No	Yes	Ordinance No. 12-168 adopted 2012
Zonings	Yes	No	No	Yes	Ordinance No. 2151 adopted 1971 and amended over time. Ordinance No. 12-185 adopted 2012
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	(765 ILCS 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. 12-185 adopted 2012
Public Health and Safety	No	No	Yes	Yes	Cook County Board of Health.
Environmental Protection	No	No	No	No	

TABLE 8-1.
LEGAL AND REGULATORY CAPABILITY

	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Planning Documents					
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 equipped to provide linkage to this mitigation 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 capital facilities does the plan address?					N/A
How often is the plan revised/updated?					N/A
Habitat Conservation Plan	No	No		No	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/Recovery Planning					
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County DHSEM
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County DHSEM
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	Yes	No	Cook County DPH

TABLE 8-2.
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

TABLE 8-3.
ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Department of Building and Planning Building and Planning Commissioner 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 DHSEM
Grant writers	Yes	Department of Building and Planning Building and Planning Commissioner Supervisor of Buildings Supervisor of Planning

TABLE 8-4.
NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

What department is responsible for floodplain management in your jurisdiction?	Building and Planning 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

TABLE 8-5.
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	Unknown	N/A
StormReady	Yes	Gold (countywide)	2014
Tree City USA	Yes	N/A	2013

8.4 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 8-6 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

TABLE 8-6.
NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Severe Storms	DR-4116	2013	N/A
Severe Winter Storms	DR-1960	2011	N/A
Severe Storms/Flooding	DR-1935	2010	N/A
Severe Storms/Flooding	DR-1800	2008	N/A
Severe Storms/Flooding	DR-1729	2007	N/A
Severe Winter Storm	EM-3161	2000	N/A
Winter Snow Storm	EM-3134	1999	N/A
Flooding	DR-1188	1997	N/A
Flooding	DR-1129	1996	N/A
Severe Storms/Flooding	DR-997	1993	N/A
Severe Storms/Flooding	DR-798	1987	N/A
Severe Storms/Flooding	DR-776	1986	N/A

8.5 HAZARD RISK RANKING

Table 8-7 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 8-7.
HAZARD RISK RANKING

Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Severe Weather	54
2	Severe Winter Weather	54
3	Tornado	42
4	Earthquake	30
5	Flood	18
6	Drought	4
7	Dam Failure	0

8.6 HARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED ACTIONS

Table 8-8 lists the actions that make up the jurisdiction's hazard mitigation plan. Table 8-9 identifies the priority for each action. Table 8-10 summarizes the mitigation actions by hazard of concern and the six mitigation types.

TABLE 8-8.
HAZARD MITIGATION ACTION PLAN MATRIX

Applies to New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline[a]
Action B9.1—SCADA (supervisory control and data acquisition) system upgrades and installation of new water meters						
Existing	Drought	1, 2, 4, 7, 9	Water Dept., Public Works	$4,000,000, Medium	Local, CDBG	Short Term
Action B9.2—Construction of new pump station, reservoirs, values and water mains						
New	Drought, Flood	1, 2, 4, 7, 9	Water Dept., Public Works	$40,000,000, High	Local, CDBG, EPA	Long Term
Action B9.3—HTH Inspections for seismic integrity						
Existing	Earthquake	1, 2, 6	Local	$100,000, Medium	Local	Short Term
Action B9.4— 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.						
Existing	All Hazards	1, 2, 4, 7, 9	Water Dept., Public Works, Engineering	High	Local, FEMA Hazard Mitigation Grants	Long Term
Action B9.5—Comprehensive study of drought vulnerability						
Existing	Drought	3, 4, 6, 8	Water Dept., Public Works, Engineering, Planning	$45,000, Medium	Local	Short Term
Action B9.6—GIS mapping of critical infrastructure						
Existing	All Hazards	3, 4, 5, 6, 7, 9, 10, 12	Planning, Engineering	Medium	Local, CDBG	Short-term
Action B9.7—Flood impact study						
New and Existing	Flood	1, 4, 6, 10	Engineering	$90,000, Medium	MWRD, Flood Prevention Program	Short Term

TABLE 8-8.
HAZARD MITIGATION ACTION PLAN MATRIX

Applies to New or Existing Assets	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline[a]
Action B9.8—Installation of separate storm sewer system to replace current combined-sewer service within the City						
New	Flood, Severe Weather	1, 2, 9	Water Dept., Public Works, Engineering	$50,000,000 High	MWRD Phase II. CDBG-DR, FEMA Mitigation Grants	Long Term
Action B9.9—Perform a Community Risk Assessment critical facilities and infrastructure						
Existing	All Hazard	3, 4, 5, 6, 8, 10, 11	Planning, Engineering	$50,000	Local, DHSEM	Short Term
Action B9.10— Update the City's flood damage prevention ordinance. Consider adoption of IDNR model ordinance for the Cook County region.						
New and Existing	Flood	2, 3, 10, 13	Building and Planning	Low	Local	Short-term
Action B9.11—Continue to support the countywide actions identified in this plan.						
New and existing	All	All	City of Blue Island	Low	General Fund	Short- and long-term
Action B9.12—Actively participate in the plan maintenance strategy identified in this plan.						
New and existing	All	3, 4, 6	DHSEM, City of Blue Island	Low	General Fund	Short-term
Action B9.13—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.						
New and existing	Flooding	4, 6, 9	Building and Planning Department	Low	General Fund	Short-term and ongoing
Action B9.14—Where feasible, implement a program to record high water marks following high-water events.						
New and existing	Flooding, Severe Weather	3, 6, 9	City of Blue Island	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
Action B9.15—Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
New and existing	All	3, 4, 6, 10, 13	Planning, Engineering	Low	General Fund	Short-term

a. Ongoing indicates continuation of an action that is already in place. Short-term indicates implementation within five years. Long-term indicates implementation after five years.

TABLE 8-9.
MITIGATION STRATEGY PRIORITY SCHEDULE

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority[a]
1	5	High	High	Yes	Yes	Yes	High
2	5	High	High	Yes	Yes	Yes	High
3	3	Medium	Medium	Yes	Yes	Yes	High
4	5	High	High	Yes	Yes	Yes	High
5	4	Low	Low	Yes	Yes	Yes	High
6	9	Medium	Medium	Yes	No	Yes	High
7	4	Medium	Medium	Yes	Yes	Yes	High
8	3	High	High	Yes	Yes	Yes	High
9	7	High	High	Yes	Yes	No	Medium
10	4	Medium	Low	Yes	No	Yes	High
11	13	Medium	Low	Yes	No	Yes	High
12	3	Low	Low	Yes	Yes	Yes	High
13	3	Medium	Low	Yes	No	Yes	High
14	3	Medium	Medium	Yes	Yes	No	Medium
15	5	Medium	Low	Yes	No	Yes	high

a. See Chapter 1 for explanation of priorities.

TABLE 8-10.
ANALYSIS OF MITIGATION ACTIONS

Hazard Type	Action Addressing Hazard, by Mitigation Type[a]					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Dam Failure	--	--	--	--	--	--
Drought	1, 2, 4, 5, 6, 9, 12, 15	1, 2, 4, 6	5, 6, 11	1, 2, 4	1, 2, 4, 11	1, 2, 4
Earthquake	3, 4, 6, 9, 12, 15	3, 4	5, 6, 11	5, 6	5, 6, 11	5, 6
Flood	2, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15	2, 4, 7, 8, 13	6, 11, 13	2, 4, 7, 8, 13	2, 4, 7, 8, 11, 13	2, 4, 7, 8
Severe Weather	4, 6, 9, 12, 14, 15	4	6, 11	4	4, 9, 11	4, 9
Severe Winter Weather	6, 9, 12, 15	4	11		11	
Tornado	6, 9, 12, 15	4	11		11	

a. See Chapter 1 for explanation of mitigation types.

8.7 FUTURE NEEDS TO BETTER UNDERSTAND RISK/ VULNERABILITY

No future needs have been identified at this time.

8.8 ADDITIONAL COMMENTS

No additional comments at this time.

HAZUS-MH RISK ASSESSMENT RESULTS FOR BLUE ISLAND

BLUE ISLAND EXISTING CONDITIONS

2010 Population	23,706
Total Assessed Value of Structures and Contents	$6,669,110,685
Area in 100-Year Floodplain	168.00 acres
Area in 500-Year Floodplain	175.00 acres
Number of Critical Facilities	58

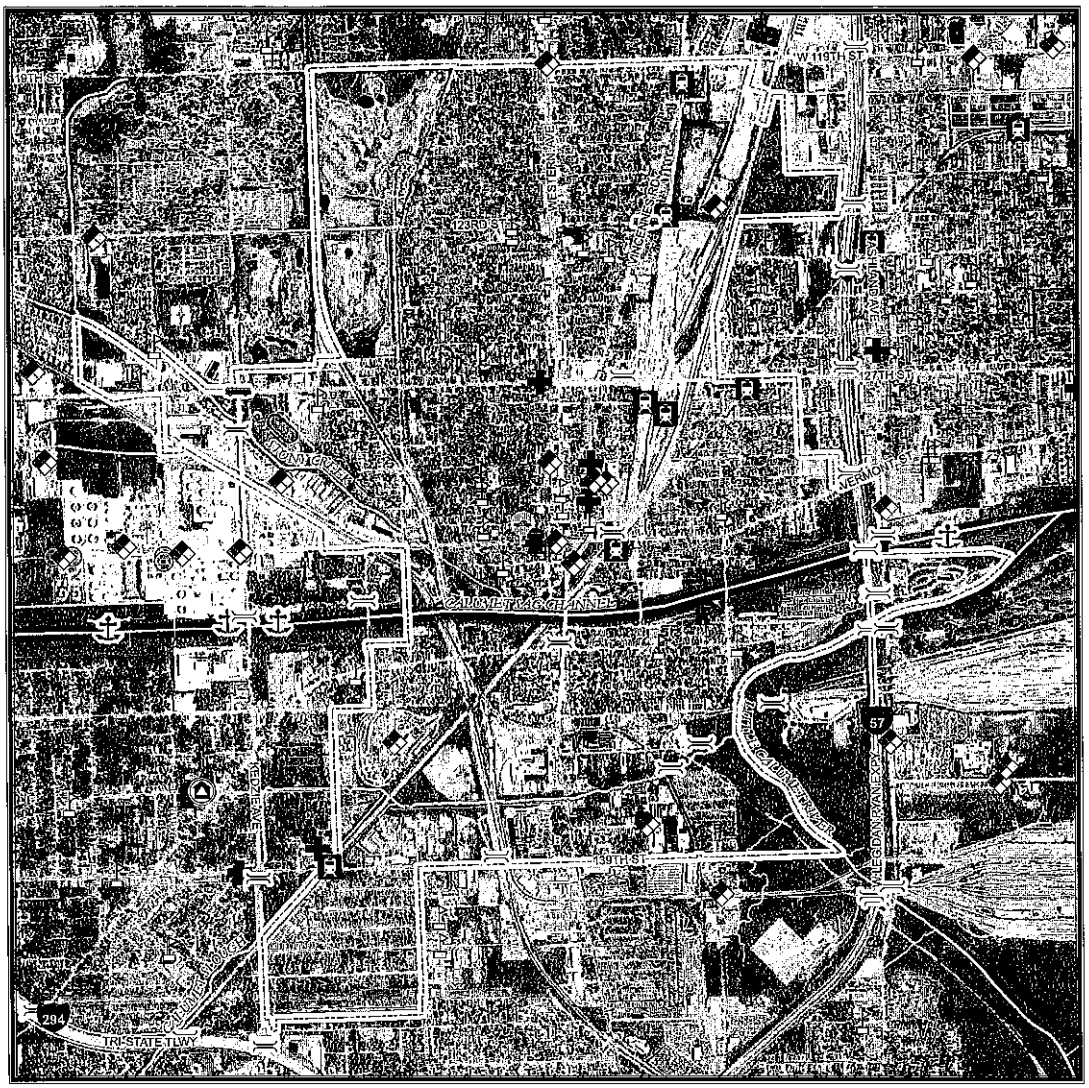
HAZARD EXPOSURE IN BLUE ISLAND

	Number Exposed		Value Exposed to Hazard			% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents	**Total**	
Dam Failure						
Buffalo Creek	0	0	$0	$0	**$0**	0.00%
U. Salt Cr. #2	0	0	$0	$0	**$0**	0.00%
Touhy	0	0	$0	$0	**$0**	0.00%
U. Salt Cr. #3	0	0	$0	$0	**$0**	0.00%
U. Salt Cr. #4	0	0	$0	$0	**$0**	0.00%
Flood						
100-Year	13	4	$988,481	$519,956	**$1,508,437**	0.02%
500-Year	13	4	$988,481	$519,956	**$1,508,437**	0.02%
Tornado						
100-Year	—	—	$656,460,936	$542,146,276	**$1,198,607,212**	17.97%
500-Year	—	—	$1,046,970,914	$852,928,834	**$1,899,899,748**	28.49%

ESTIMATED PROPERTY DAMAGE VALUES IN BLUE ISLAND

	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	**Total**	
Dam Failure				
Buffalo Creek	$0	$0	**$0**	0.00%
U. Salt Cr. #2	$0	$0	**$0**	0.00%
Touhy	$0	$0	**$0**	0.00%
U. Salt Cr. #3	$0	$0	**$0**	0.00%
U. Salt Cr. #4	$0	$0	**$0**	0.00%
Earthquake				
1909 Historical Event	$35,923,881	$10,945,279	**$46,869,160**	0.70%
Flood				
10-Year	$0	$0	**$0**	0.00%
100-Year	$16,012	$11,730	**$27,741**	0.00%
500-Year	$17,349	$15,900	**$33,249**	0.00%
Tornado				
100-Year	$65,646,094	$54,214,628	**$119,860,721**	1.80%
500-Year	$152,857,753	$124,527,610	**$277,385,363**	4.16%

HAZARD MAPPING FOR BLUE ISLAND

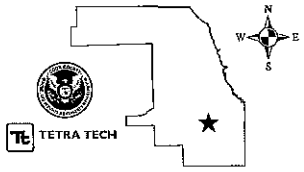


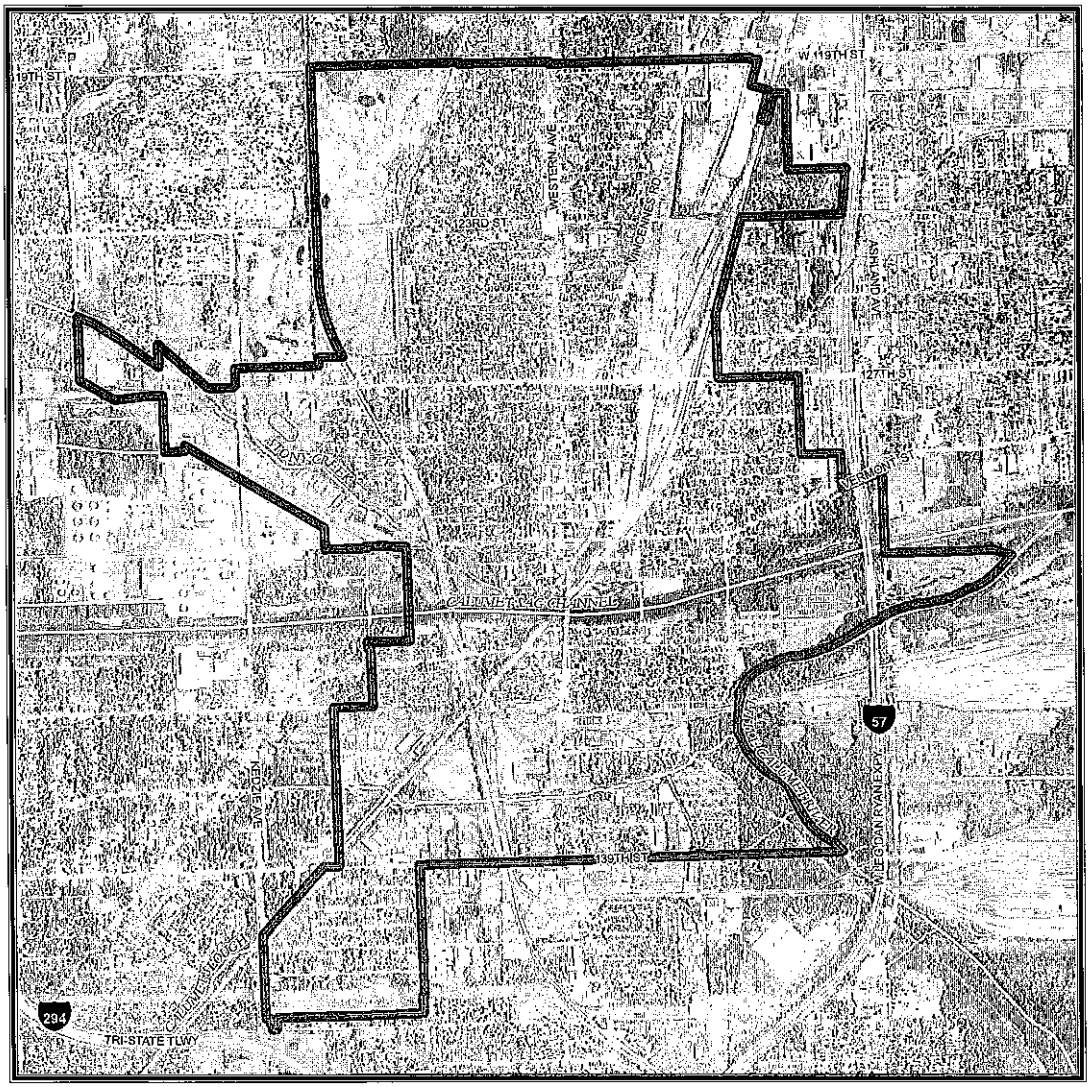
CITY OF BLUE ISLAND

Critical Facilities

- Airport Facility
- Bus Facility
- Dams
- Emergency Operations Center
- Fire Station Facility
- Hazardous Materials
- Highway Bridge
- Light Rail Bridge
- Light Rail Facility
- Medical Care Facility
- Military
- Oil Facility
- Police Station Facility
- Port Facility
- Potable Water Facility
- Rail Facility
- Railway Bridge
- School Facility
- Other Facility

Base Map Data Sources:
Cook County, U.S. Geological Survey





CITY OF BLUE ISLAND

Illinois Historical 1909 Earthquake

Modified Mercalli Intensity

- I (Not Felt)
- II-III (Weak)
- IV (Light)
- V (Moderate)
- VI (Strong)
- VII (Very Strong)
- VIII (Severe)
- IX (Violent)
- X+ (Extreme)

Event Date of May 26, 1909. Original magnitude of 5.0; increased magnitude for analysis of 6.0. Depth: 10 km. Epicenter Lat/Long: 41.6N 88.1W

An Epicenter Map is derived from a database of historical earthquakes developed from three sources (Composite Earthquake Catalog, 2002, Earthquake Data Base, 2002, and Earthquake Seismicity Catalog, 1996). The database has been sorted to remove historical earthquakes with magnitudes less than 5.0. The Epicenter Map is based on a historical earthquake epicenter, selected from the database.

Base Map Data Sources:
Cook County, U.S. Geological Survey

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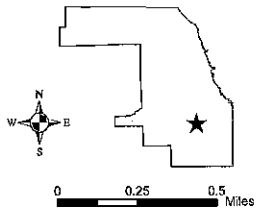

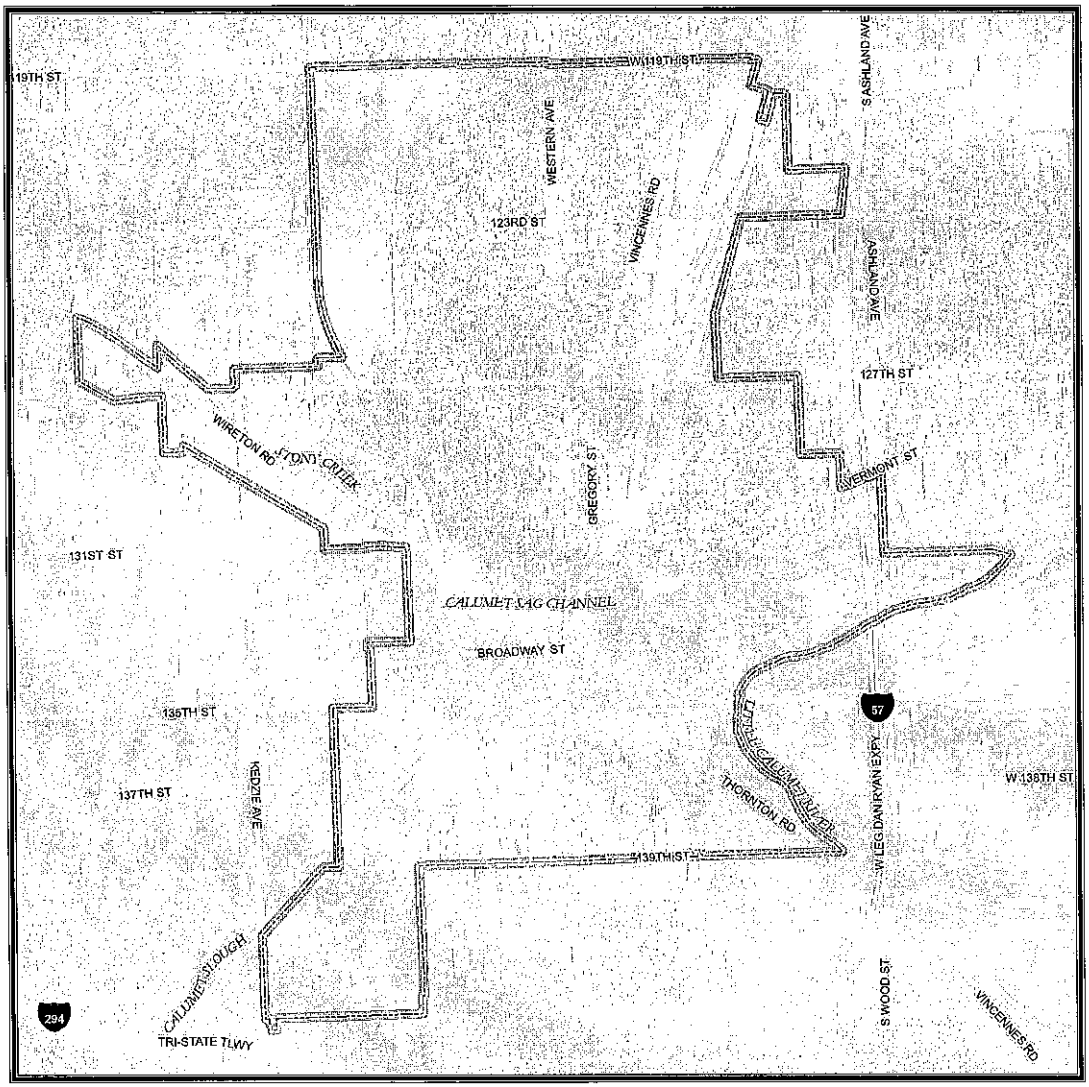

CITY OF BLUE ISLAND

National Earthquake Hazard Reduction Program (NEHRP) Soil Classification

Site Class

- A - Hard Rock
- B - Rock
- C - Very Dense Soil, Soft Rock
- D - Stiff Soil
- E - Soft Soil
- F - Site-Specifc Evaluation

Soil classification data provided by the Illinois State Geological Society.

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. Central U.S. Earthquake Consortium (CUSEC) State Geologists used the entire column of soil 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.

Base Map Data Sources:
Cook County, U.S. Geological Survey

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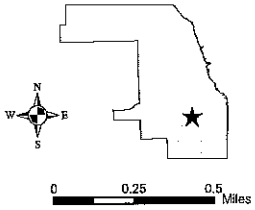

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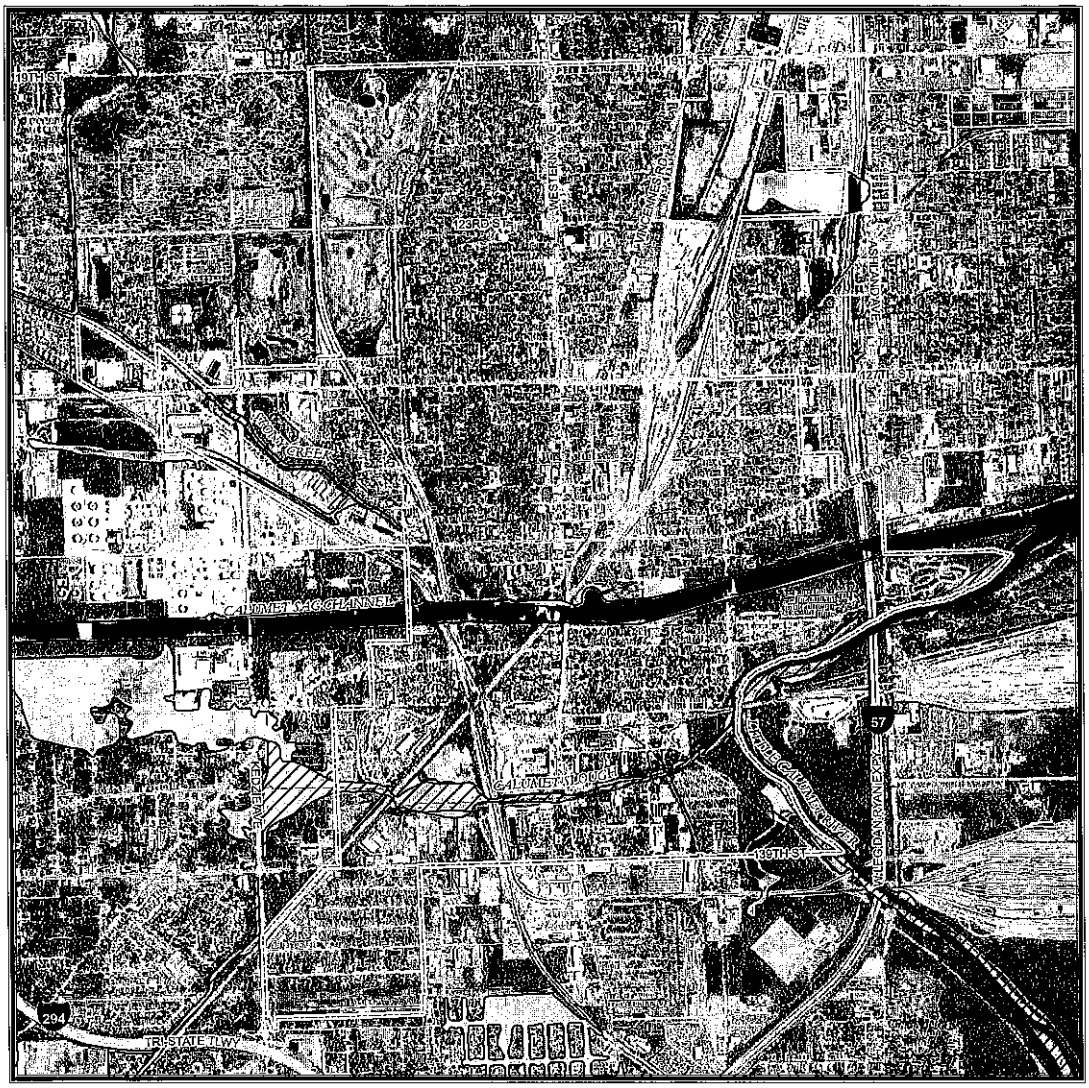

CITY OF BLUE ISLAND

FEMA DFIRM Flood Hazard Areas

☑ Floodway
☐ 1 Percent Annual Flood Hazard

Flood Depth
20 ft
-1 ft

Flood hazard areas as depicted on FEMA Digital Flood Insurance Rate Maps (DFIRM).

The 1 percent annual flood hazard is commonly referred to as the 100 year floodplain.

Base Map Data Sources:
Cook County, U.S. Geological Survey

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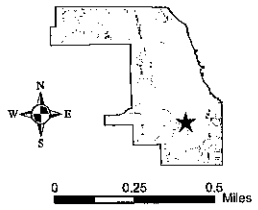
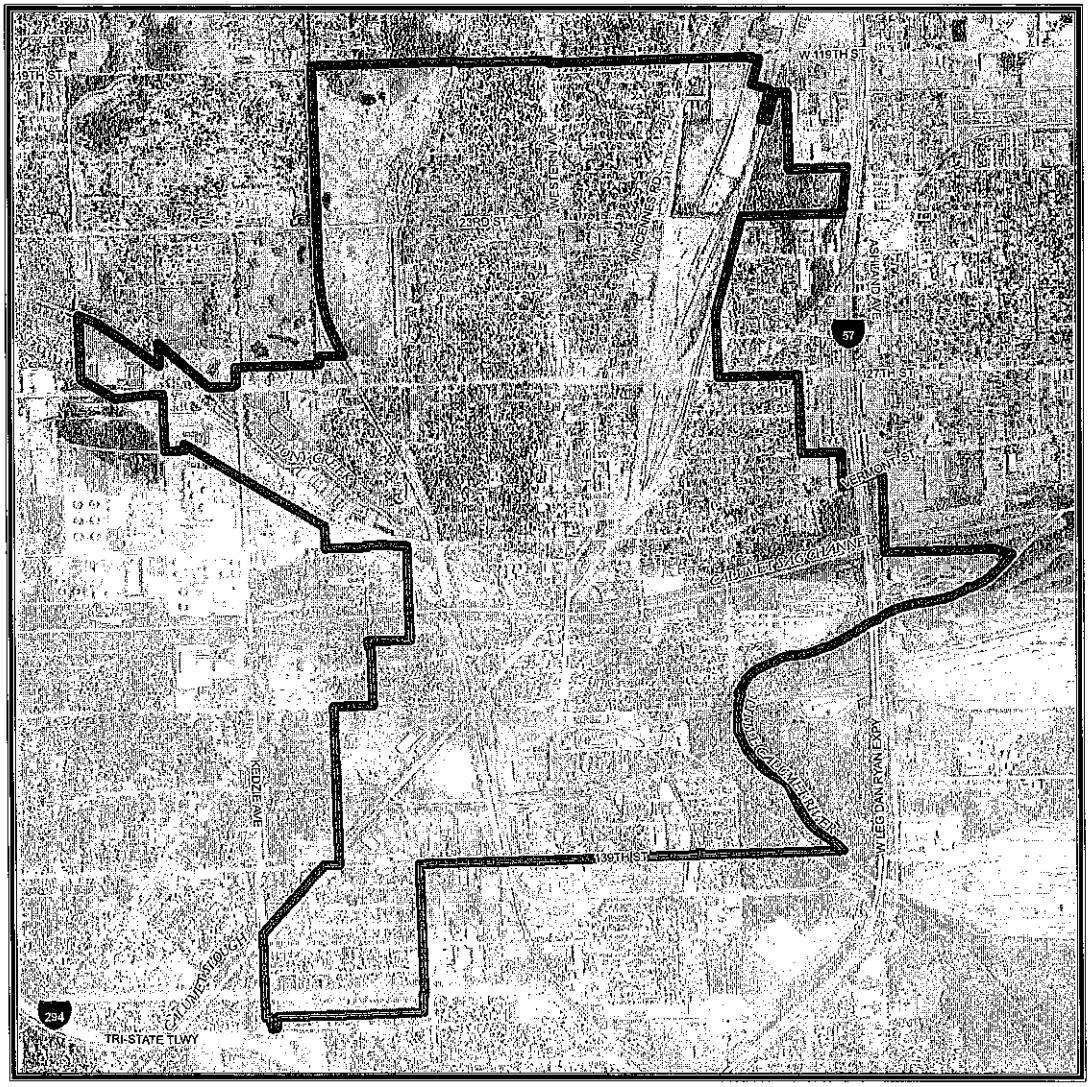


0 0.25 0.5 Miles



CITY OF BLUE ISLAND

Liquefaction Susceptibility

Susceptible	Not Susceptible
High	Bedrock
Moderate to High	Peat
Moderate	Water
Low to Moderate	Ice
Low	
Very Low to Low	
Very Low	

Liquefaction data provided by the Illinois State Geological Society. Liquefaction data based on the Youd and Perkins (1978) method.

A liquefaction susceptibility map provides an estimate of the likelihood that soil will liquefy as a result of earthquake shaking. This type of map depicts the relative susceptibility in a range that varies from very low to high. Areas underlain by bedrock or peat are mapped separately as these earth materials are not liquefiable, although peat deposits may be subject to permanent ground deformation caused by earthquake shaking.

Base Map Data Sources:
Cook County, U.S. Geological Survey

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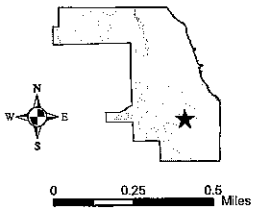

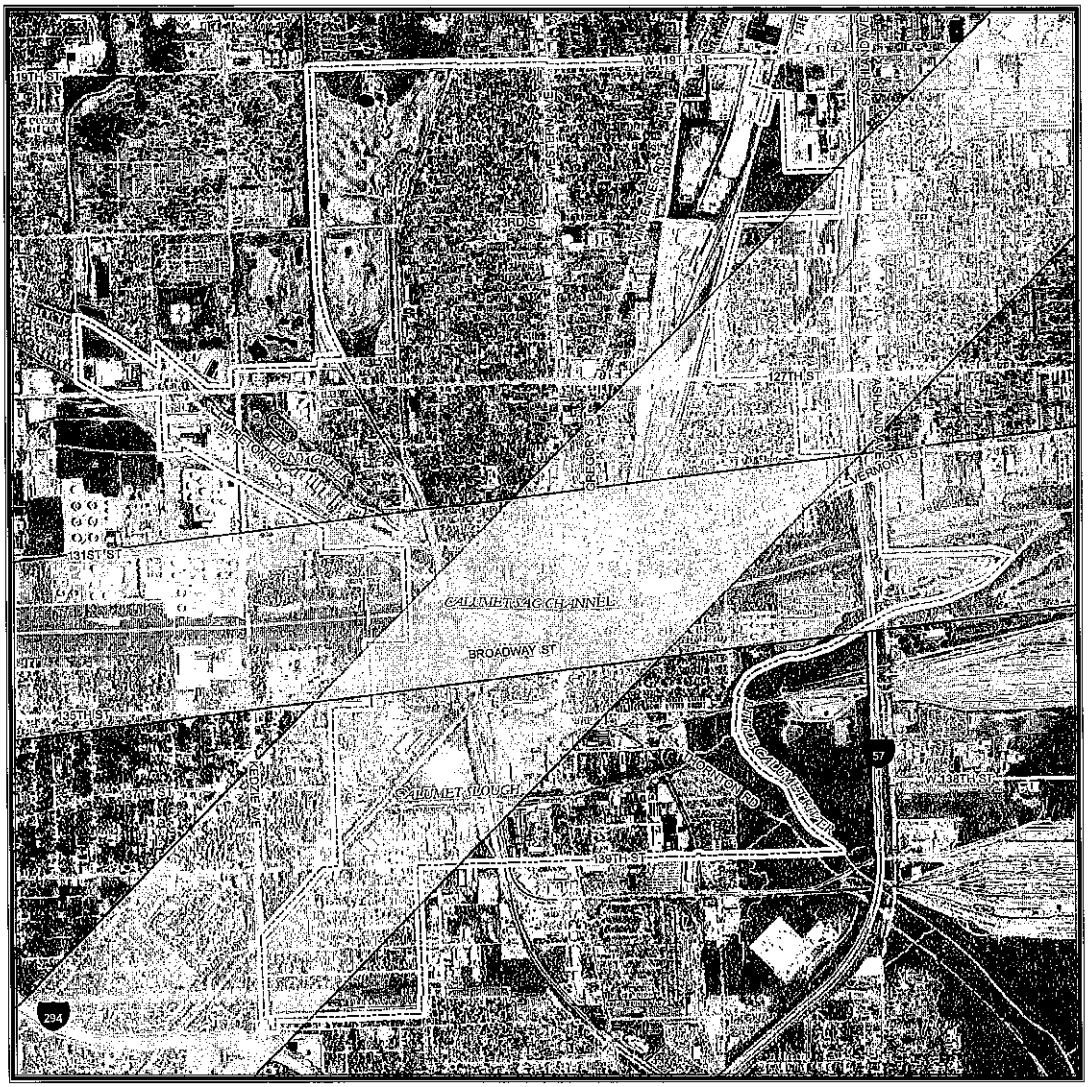

CITY OF BLUE ISLAND

100- and 500-Year Tornado Events

100-Year Modeled Tornado Event (F4)
☐
500-Year Modeled Tornado Event (F5)
☐

The 100- and 500-year events have been modeled based on fifty-nine years of tornado data for Cook County. The wind speeds, widths, lengths, and direction for each event were developed using existing historical tornado data. The simulated storms and their corresponding losses within this jurisdiction were used to determine the 100- and 500-year economic loss event.

Base Map Data Sources:
Cook County, U.S. Geological Survey

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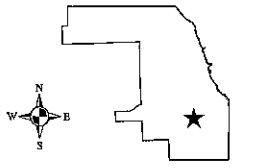

0 0.25 0.5 Miles