

**COOK COUNTY  
MULTI-JURISDICTIONAL  
HAZARD MITIGATION PLAN  
VOLUME 2 - Municipal Annexes**

**Bridgeview Annex**

**FINAL**

July 2019

Prepared for:



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## Hazard Mitigation 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:** 1947
- **Current Population:** The US Census 2016 estimate for Bridgeview was 16,248.
- **Population Growth:** Bridgeview experienced significant population growth from 2000 to 2010, with an increase of 7.24 percent. From 2010 to 2016, the population decreased slightly, with a decrease of 1.19 percent. The Bridgeview population density is 3,960.46 people per square mile, which is much higher than the state average density of 221.55 people per square mile and is much higher than the national average density of 81.32 people per square mile.
- **Location and Description:** Bridgeview is a suburb of Chicago in Cook County located 16 miles south west of the Chicago Loop off of the I-55 interstate. The village has a roughly rectangular shape; its borders running north and south stagger between 8200 West and 6800 West, but can generally be defined as between Roberts Road and Harlem Avenue. The southern border of the town is 103rd Street between 76th Avenue and Harlem. The northern border is staggered between 6700 South on the west side of the rail tracks and 6900 South on the east side of the rail tracks. Bridgeview lies within four separate townships with a corner of each meeting at the intersection of 87th Street and Harlem Avenue. According to the 2010 census, the village has a total area of 4.15 square miles (10.7 km<sup>2</sup>), all land.
- **Brief History:** The original Bridgeview area was in Lyons Township, which until 1902 included the present Stickney Township. The little community of Bridgeview remained unincorporated until 1947 when some of its leading residents expressed a fear of becoming incorporated into an adjacent area, namely the Nottingham community. (Nottingham, which lies on the east side of Harlem Avenue, remains unincorporated to this day.) An incorporation committee of local residents was formed consisting of Chairman George Cizek, Earl Pederson, William Ohlson, Clarence MacMillan, Charles Their, Adam Milewski and William Kozal. The Committee cited building regulations, sewer and water systems, and improved property valuations as the advantage of incorporation. A referendum on the issue was held June 14, 1947 in the Clayton Hall of the Community Building. The results were: 132-Yes, 19-No, and 3–Spoiled Ballots. On July 16, 1947, Bridgeview was certified as an incorporated village with boundaries from Harlem Avenue (East) to Roberts Road (West) and from approximately 69th St. (North) to 83rd St. (South).
- **Climate:** Bridgeview, 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 and, on average, there are 189 sunny days per year in Bridgeview, 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 (higher is more comfortable). The U.S. average on the comfort index is 44.
- **Governing Body Format:** On September 13, 1947, a referendum was held to elect the first governing body of the new village. Two slates of candidates vied for the homeowners' votes in a cleanly conducted campaign. A president, clerk and three trustees would be elected to serve

four years each, and the remaining three trustees were to serve two years. Subsequent village appointments were made: Police Chief, Treasurer, and Building Commissioner. Bridgeview operates several departments including: Community Services, Building Department, Public Works Department, Emergency Management Agency, Police Department, and Fire Department. The Village of Bridgeview's governing body will assume the responsibility for the adoption and implementation of this plan.

- **Development Trends:** Both Bridgeview and Tinley Park have an interest in developing additional hotel uses. It is notable that two other clusters of hotels exist along Cicero Avenue just three miles east of Harlem Avenue, in Bedford Park just south of Midway Airport, and in Alsip and Crestwood near the I-294 interchange. The concentration of approximately 1,500 hotel rooms south of Midway Airport is particularly new in its development; many major hotel chains have added a new property recently. The presence of these well situated hotel areas may limit prospects for growth in the northern parts of the Corridor. Based on the locations of these types of venues surrounding Harlem Avenue, there may be long-term opportunities for movie theaters or water park/hotel uses in the districts surrounding Toyota Park.

## Capability Assessment

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

<b>TABLE: LEGAL AND REGULATORY CAPABILITY</b>					
	<b>Local Authority</b>	<b>State or Federal Prohibitions</b>	<b>Other Jurisdictional Authority</b>	<b>State Mandated</b>	<b>Comments</b>
<b>Codes, Ordinances &amp; Requirements</b>					
Building Code	Yes	No	No	Yes	Ord.#6-1-1 Adopted: 03/17/2010
Zonings	Yes	No	No	Yes	Ord. #3-5-1 Adopted 1994
Subdivisions	Yes	No	No	No	Ord.#12-1-1 Adopted 1994
Stormwater Management	Yes	No	Yes	Yes	Ord. #N/A Adopted: 2011
Post Disaster Recovery	No	No	No	No	N/A
Real Estate Disclosure	No	No	Yes	Yes	(765ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	N/A
Site Plan Review	No	No	No	No	N/A
Public Health and Safety	Yes	No	Yes	Yes	Ord.#2-4 Adopted: 1994
Environmental Protection	No	No	No	No	N/A

Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	Ord.#3-6-1 Adopted: Revised 08/06/2008
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					Yes, Plan includes land use and redevelopment elements
Floodplain or Basin Plan	Yes	No	N/A	No	N/A
Stormwater Plan	Yes	No	MWRD	No	Regional stormwater impacts are managed by MWRD. The Village lies within the Cal-Sag watershed planning area of MWRD's comprehensive Stormwater Master Planning Program.
Capital Improvement Plan	No	No	No	No	
<i>What types of capital facilities does the plan address?</i>					N/A
<i>How often is the plan revised/updated?</i>					N/A
Habitat Conservation Plan	No	No	No	No	N/A
Economic Development Plan	No	No	No	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook county 6b program.
Shoreline Management Plan	No	No	No	No	N/A

<b>Response/Recovery Planning</b>					
Comprehensive Emergency Management Plan	Yes	No	Yes	Yes	Village of Bridgeview Emergency Operations Plan.
Threat and Hazard Identification and Risk Assessment	Yes	No	Yes	No	Cook County DHSEM Preparing THIRA.
Terrorism Plan	Yes	No	Yes	Yes	In the process.
Post-Disaster Recovery Plan	Yes	No	Yes	Yes	In the process.
Continuity of Operations Plan	Yes	No	Yes	No	In the process.
Public Health Plans	Yes	No	Yes	No	In the process.

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



<b>TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY</b>		
<b>Staff/Personnel Resources</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
Planners or engineers with knowledge of land development and land management practices	Yes	Robinson Engineering and Public Works
Engineers or professionals trained in building or infrastructure construction practices	Yes	Robinson Engineering and Public Works
Planners or engineers with an understanding of natural hazards	Yes	Robinson Engineering and Public Works
Staff with training in benefit/cost analysis	Yes	Finance Department/Admin
Surveyors	No	N/A
Personnel skilled or trained in GIS applications	No	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	N/A
Emergency manager	Yes	Director of Bridgeview EMA
Grant writers	Yes	Fire Department Battalion Chief

<b>TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE</b>	
What department is responsible for floodplain management in your jurisdiction?	Public Works
Who is your jurisdiction’s floodplain administrator? (department/position)	Public Works
Are any certified floodplain managers on staff in your jurisdiction?	Soon to be
What is the date of adoption of your flood damage prevention ordinance?	1994
When was the most recent Community Assistance Visit or Community Assistance Contact?	1997
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)	No. There is a lot of flooding in the village the reoccurs often.
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. Any training at all would be helpful.
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. But we would like to join the program.

<b>TABLE: COMMUNITY CLASSIFICATIONS</b>			
	<b>Participating?</b>	<b>Classification</b>	<b>Date Classified</b>
Community Rating System	No	--	--
Building Code Effectiveness Grading Schedule	Yes	Unknown	Unknown
Public Protection/ISO	Yes	5	Unknown
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	No	N/A	N/A

## Jurisdiction-Specific Natural Hazard Event

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

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

- Number of FEMA-Identified Repetitive Loss Properties: 1
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Hail	-	6/8/2015	-
Ice Storm	-	2/1/2014	-
Severe Flooding	-	6/12/2013	-
Severe Thunderstorms	DR-4116	4/26/2013	-
Severe wind/Hail/Lightning/and Flooding	N/A	7/24/2012	-
Severe Flooding	-	7/18/2012	-
Wind Damage	-	6/26/2012	-
Wind Damage	-	6/6/2012	-
Severe Lighting	-	5/4/2012	-
Ice Storm	-	12/29/2011	-
Severe Wind Damage	-	8/13/2011	-
Severe Thunderstorm/Wind Damage	-	8/3/2011	-
Straight Line-Winds	-	7/28/2011	-

Severe Thunderstorm/Wind Damage	-	7/26/2011	-
Straight Line-Winds	-	6/30/2011	-
Severe Flooding	-	6/20/2011	-
Severe Flooding	-	6/9/2011	-
Ice Storm	-	3/5/2011	-
Severe Winter Storm/Snow/Blizzard	-	2/1/2011	-

**Jurisdiction-Specific Hazards and Impacts**

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2019 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.

**Flooding:** Bridgeview has experienced flood losses repeatedly, including but not limited to the residential structures along Roberts Rd and 100th Place. Most of Bridgeview is located in a high urban flooding susceptibility zone.

**Extreme Heat:** The Village has several cooling centers.

**Snow:** The Village maintains concern over the safety of its residents' lives and property during heavy snow events.

**Blizzards:** The Village maintains concern over the safety of its residents' lives and property during blizzards.

**Extreme Cold:** The Village maintains concern over the safety of its residents' lives and property during extreme cold events.

**Ice Storms:** The Village maintains concern over the safety of its residents' lives and property during ice storms.

**Tornado:** The Village maintains concern over the safety of its residents' lives and property during tornadoes.

## 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.

<b>TABLE: HAZARD RISK RANKING</b>		
<b>Rank</b>	<b>Hazard Type</b>	<b>Risk Rating Score (Probability x Impact)</b>
1	Severe Weather	54
2	Flood	51
3	Severe Winter Weather	51
4	Tornado	48
5	Earthquake	7
6	Drought	5
7	Dam Failure	0

## Mitigation Strategies and Actions

The heart of the mitigation plan is the mitigation strategy, which serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The mitigation strategy describes how the community will accomplish the overall purpose, or mission, of the planning process. In this section, mitigation actions/projects were updated/amended, identified, evaluated, and prioritized. This section is organized as follows:

- New Mitigation Actions - New actions identified during this 2019 update process
- Ongoing Mitigation Actions - Ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.
- Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.

The *Hazard Mitigation Action Plan Matrix Table* below lists the actions that make up the jurisdiction’s hazard mitigation plan. The *Mitigation Strategy Priority Schedule Table* identifies the priority for each action.

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX						
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)
<b>Action B10.1</b> —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, including but not limited to the residential structures along Roberts Rd and 100th Place.						
Ongoing	All	7, 13	Village of Bridgeview/Public Works	High	FEMA Hazard Mitigation Grant Funding with local match provided by property owner contribution	Long-term(depending on funding)
<b>Action B10.2</b> —Retrofit water main/storm sewers down Roberts Road, down 100th Place and down Oketo Ave.						

Completed	Floods	7, 9, 12	Village of Bridgeview	High	NFIP grants / FEMA Hazard Mitigation Grant Funding	Completed
<b>Action B10.3</b> —Collect information and participate in programs which address emergency preparedness.						
Completed	All	5, 6, 8	Village of Bridgeview/Emergency Management	\$2000; Low	General Fund	Completed
<b>Action B10.4</b> —Clear storm drains and culverts for storm water management down Roberts Road and down 100th Place and Harlem.						
Completed	Floods	1, 9, 12, 13	Village of Bridgeview / Public Works	\$1000; Low	General Fund	Completed
<b>Action B10.5</b> —Retrofit all Village infrastructure to improve resilience to disasters.						
Ongoing	All	2, 3, 5, 7, 12	Village of Bridgeview	\$100,000 ; High	FEMA PDM Grants	Long-term
<b>Action B10.6</b> —Bury utility cables in new developments, business zones and major transportation routes.						
Ongoing	Severe Weather	1, 5, 7, 12, 13	Village of Bridgeview/ Utility Companies	High	Developer fees, Utilities, FEMA Mitigation Grants, Village General Fund	Long-term
<b>Action B10.7</b> —Educating citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.						
Completed	Severe Weather, Sever Winter Weather	6, 8, 12	Fire Department	Low	General Fund	Completed
<b>Action B10.8</b> —Develop and maintain a database to track community vulnerability to severe wind.						
Ongoing	Severe Weather	3, 5, 6, 8	Village, Emergency Management	Low	General Fund	Short-term

<b>Action B10.9</b> —Plan for and maintain adequate road and debris clearing capabilities.						
Completed	Severe Weather, Severe Winter Weather	1, 3, 6	Village of Bridgeview / Public Works	Medium	General Fund	Completed
<b>Action B10.10</b> —Continue to support the countywide actions identified in this plan.						
Ongoing	All	All	Village of Bridgeview	Low	Village of Bridgeview / Public Works	Short-term, long-term
<b>Action B10.11</b> —Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	DHSEM (Village of Bridgeview)	Low	General Fund	Short-term
<b>Action B10.12</b> —Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.						
Completed	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Village of Bridgeview	Low	General Fund	Completed
<b>Action B10.13</b> —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.						
Ongoing	Flooding	4, 6, 9	Village of Bridgeview	Low	General Fund	Short-term, long-term
<b>Action B10.14</b> —Where feasible, implement a program to record high water marks following high-water events.						
Ongoing	Flooding, Severe Weather	3, 6, 9	Village of Bridgeview	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
<b>Action B10.15</b> —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
Ongoing	All	3, 4, 6, 10, 13	Village of Bridgeview / Public Works / Robinson Engineering	Low	General Fund	Short-term



<b>Action B10.16</b> —Consider the development and implementation of a Capital Improvements program as a means to increase the resiliency of the Village’s critical facilities and infrastructure.						
Ongoing	All Hazards	1, 2	Village of Bridgeview / Public Works	High	General Fund	Long-term
<b>Action B10.17</b> —Emergency generators upgrade and more in the community.						
New	Flood, Tornado	8, 9	Village of Bridgeview	Medium	Local Funds	Continuing, 2021
<b>Action B10.18</b> —Flood and power loss mitigation.						
New	All	2, 3, 12, 13	Bridgeview E.M.A.	Medium	Grants and Local Funds	2022
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: MITIGATION STRATEGY PRIORITY SCHEDULE							
Action Number	Number 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	2	High	High	Yes	Yes	No	Medium
2	3	High	High	Yes	Yes	No	High
3	3	Medium	Low	Yes	No	Yes	High
4	4	High	Low	Yes	No	Yes	High
5	5	High	High	Yes	Yes	No	High
6	5	Medium	High	No	No	No	Medium
7	3	Medium	Low	Yes	Yes	Yes	Medium
8	4	Medium	Low	Yes	No	Yes	Medium
9	3	High	Medium	Yes	Yes	Yes	High
10	2	High	High	Yes	Yes	No	Medium
11	13	Medium	Low	Yes	No	Yes	High
12	3	Medium	Low	Yes	Yes	Yes	High
13	9	Medium	Low	Yes	No	Yes	Medium
14	3	Medium	Low	Yes	No	Yes	High

15	3	Medium	Medium	Yes	Yes	No	Medium
16	2	High	High	Yes	No	No	Medium
17	2	Medium	Medium	Yes	No	Yes	Medium
18	4	Medium	Medium	Yes	Yes	TBD	High

(a) See Chapter 1 for explanation of priorities.

### New Mitigation Actions

The following are new mitigation actions created during the 2019 update.

**Action B - 10.17**

<b>Mitigation Action</b>	Emergency generators upgrade and more in the community
<b>Year Initiated</b>	2014
<b>Applicable Jurisdiction</b>	Bridgeview E.M.A
<b>Lead Agency/Organization</b>	Village of Bridgeview
<b>Supporting Agencies/Organizations</b>	Bridgeview F.D. & P.D.
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.</li> <li>• Establish partnerships among all levels of local government, the private sector, and/or nongovernmental organizations to improve and implement methods to protect people and property.</li> </ul>
<b>Potential Funding Source</b>	Local Funds
<b>Estimated Cost</b>	Unknown
<b>Benefits (loss avoided)</b>	To make a safer community
<b>Projected Completion Date</b>	Continues, 2021
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium Priority
<b>Benefit Analysis (Low, Medium, High)</b>	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.
<b>Cost Analysis (Low, Medium, High)</b>	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.

<b>Actual Completion Date</b>	Ongoing
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<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	Minor flooding in several areas, after heavy storms. Emergency generators upgrade and more in the community

<b>Mitigation Action and Project Maintenance</b>		
<b>Year</b>	<b>Status</b>	<b>Comments</b>
2019	New	
2020		
2021		
2022		
2023		

<b>Mitigated Hazards</b>	
	<b>All Hazards</b>
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

**Action B - 10.18**

<b>Mitigation Action</b>	Flood and power loss mitigation
<b>Year Initiated</b>	2014
<b>Applicable Jurisdiction</b>	Village of Bridgeview
<b>Lead Agency/Organization</b>	Bridgeview E.M.A.
<b>Supporting Agencies/Organizations</b>	Bridgeview Fire and Police
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events and potential damage from such activities.</li> <li>• Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.</li> <li>• Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
<b>Potential Funding Source</b>	Grants and local funds
<b>Estimated Cost</b>	Unknown
<b>Benefits (loss avoided)</b>	Upgrade to current projects
<b>Projected Completion Date</b>	2022
<b>Priority and Level of Importance (Low, Medium, High)</b>	High Priority
<b>Benefit Analysis (Low, Medium, High)</b>	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.

<b>Cost Analysis (Low, Medium, High)</b>	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.
<b>Actual Completion Date</b>	

<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	1. Flooding 2. New emergency generators (3) 3. Building upgrades

<b>Mitigation Action and Project Maintenance</b>		
<b>Year</b>	<b>Status</b>	<b>Comments</b>
2019	New	
2020		
2021		
2022		
2023		

<b>Mitigated Hazards</b>	
X	All Hazards
	Dam/Levee Failure
	Drought
X	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
X	High Wind
X	Snow
X	Blizzard
	Extreme Cold
	Ice Storms
X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees

X	Hazardous Materials Incident
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### Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

**Action B - 10.1**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.1	Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses, including but not limited to the residential structures along Roberts Rd and 100th Place.	
Status Description: No	No action taken at this time	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.5**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.5	Retrofit all Village infrastructure to improve resilience to disasters.	
Status Description: No	No action taken	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.6**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.6	Bury utility cables in new developments, business zones and major transportation routes.	
Status Description: No	No action taken	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.8**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.8	Develop and maintain a database to track community vulnerability to severe wind.	
Status Description: No	No action taken	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.10**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.10	Continue to support the countywide actions identified in this plan.	
Status Description: Yes	All departments within the village of Bridgeview update and follow the plan when possible.	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.11**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.11	Actively participate in the plan maintenance strategy identified in this plan.	
Status Description: Yes	Bridgeview EMA constantly updates all village weather and safety plans monthly to make use all phone numbers and important info is as accurate as possible.	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.13**

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.13	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	Public works is constantly working on the streets and takes notes on whos street and yards flood the most during storms.	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.14**

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.14	Where feasible, implement a program to record high water marks following high-water events.	
Status Description: Yes	No action taken	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.15**

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.15	Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.	
Status Description: No	No action taken	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 10.16**

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—10.16	Consider the development and implementation of a Capital Improvements program as a means to increase the resiliency of the Village’s critical facilities and infrastructure.	
Status Description: No	No action taken	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

### Completed Mitigation Actions

The following section represents completed mitigation actions, and serves as an archive of identified and completed projects.

**Action B - 10.2**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 10.2	Retrofit water main/storm sewers down Roberts Road, down 100th Place and down Oketo Ave.	
Status Description: Yes	Strom sewers were all replaced from 79th street to 87th street on Roberts Road.	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action B - 10.3**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 10.3	Collect information and participate in programs which address emergency preparedness.	
Status Description: Yes	Bridgeview EMA goes to all schools in the village and talk about severe weather. Bridgeview EMA also puts on classes for all seniors in Villages of Bridgeview and Justice	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		



**Action B - 10.4**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 10.4	Clear storm drains and culverts for storm water management down Roberts Road and down 100th Place and Harlem.	
Status Description: Yes	Bridgeview Public Works has a street sweeper that goes down Roberts Road twice a month and clears all drains. Same with 100th Place and Harlem.	C
<p style="text-align: center;"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action B - 10.7**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 10.7	Educating citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.	
Status Description: Yes	Bridgeview EMA goes around to all schools, nursing homes and senior centers in the villages of Bridgeview and Justice 3 times a year	C
<p style="text-align: center;"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action B - 10.9**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 10.9	Plan for and maintain adequate road and debris clearing capabilities.	
Status Description: Yes	Public works has a street sweeper, dump trucks and front end loaders, even a tree crusher they use daily to keep the roads clear and safe.	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action B - 10.12**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 10.12	Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.	
Status Description: Yes	The villages of Bridgeview and Justice are a storm ready community and Bridgeview EMA actually just updated the storm ready requirements with the Weather Service. Village of Justice was also updated.	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

## Future Needs to Better Understand Risk/Vulnerability

No needs have been identified at this time.

## Additional Comments

No additional comments at this time.

## HAZUS-MH Risk Assessment Results

BRIDGEVIEW EXISTING CONDITIONS	
2010 Population	16,446
Total Assessed Value of Structures and Contents	\$5,163,209,327
Area in 100-Year Floodplain	15.78 acres
Area in 500-Year Floodplain	70.61 acres
Number of Critical Facilities	54

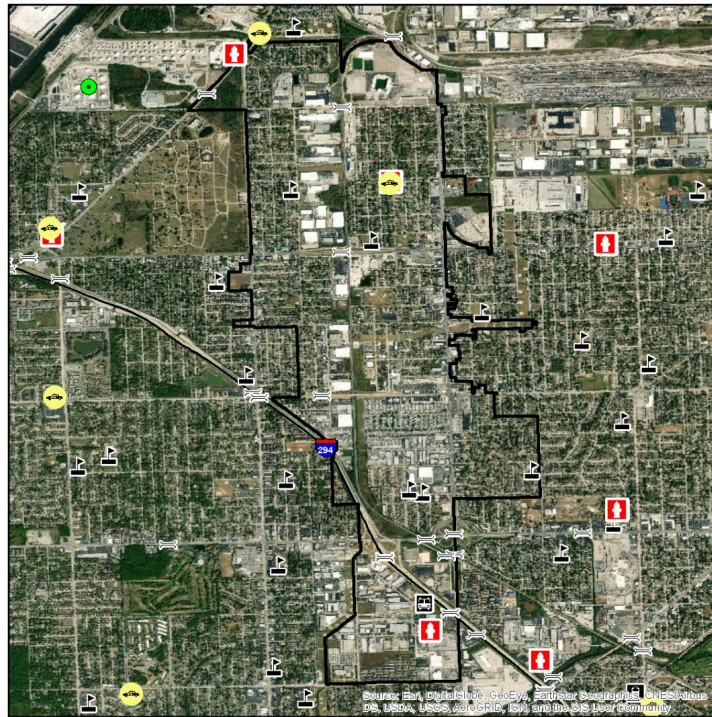
HAZARD EXPOSURE IN BRIDGEVIEW						
	Number Exposed		Value Exposed to Hazard		Total	% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents		
<b>Dam Failure</b>						
Buffalo Creek	0	0	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	<b>\$0</b>	0.00%
Touhy	0	0	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #3	0	0	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #4	0	0	\$0	\$0	<b>\$0</b>	0.00%
<b>Flood</b>						
100-Year	7	2	\$304,334	\$304,334	<b>\$608,668</b>	0.01%

500-Year	20	6	\$13,876,403	\$14,068,678	<b>\$27,945,081</b>	0.54%
<b>Tornado</b>						
100-Year	—	—	\$362,500,617	\$356,636,248	<b>\$719,136,866</b>	13.93%
500-Year	—	—	\$1,078,451,541	\$999,955,257	<b>\$2,078,406,798</b>	40.25%

<b>ESTIMATED PROPERTY DAMAGE VALUES IN BRIDGEVIEW</b>				
	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	Total	
<b>Dam Failure</b>				
Buffalo Creek	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #2	\$0	\$0	<b>\$0</b>	0.00%
Touhy	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #3	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #4	\$0	\$0	<b>\$0</b>	0.00%
<b>Earthquake</b>				
1909 Historical Event	\$58,136,025	\$20,362,075	<b>\$78,498,100</b>	1.52%
<b>Flood</b>				
10-Year	\$0	\$0	<b>\$0</b>	0.00%
100-Year	\$0	\$0	<b>\$0</b>	0.00%
500-Year	\$1,062	\$2,125	<b>\$3,187</b>	0.00%

<b>Tornado</b>				
100-Year	\$36,250,062	\$35,663,625	<b>\$71,913,687</b>	1.39%
500-Year	\$157,453,925	\$145,993,468	<b>\$303,447,393</b>	5.88%

# Hazard Mapping

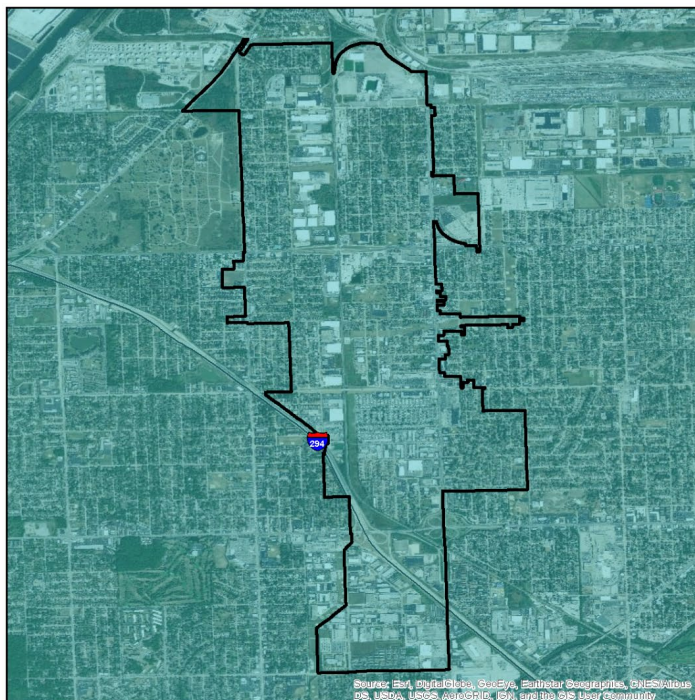
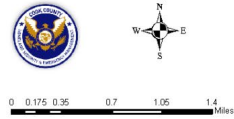


## VILLAGE OF BRIDGEVIEW

### CRITICAL INFRASTRUCTURE

- Oil Facilities
- Transit Centers
- Military Facilities
- Police Stations
- Fire Stations
- Hazardous Waste
- Airports
- Hospitals
- Highway Bridges
- Warming Centers
- Cooling Centers
- Schools
- Railroad Stations

Base Map Data Sources:  
Cook County, ESRI



## VILLAGE OF BRIDGEVIEW

### PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

Mercalli Scale, Potential Shaking  
II-III Weak

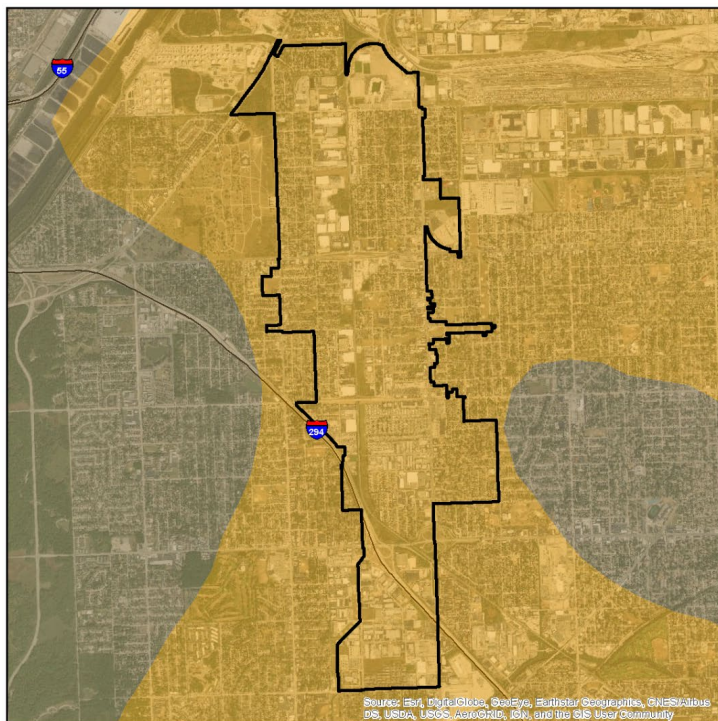
Data provided by the USGS Earthquake Hazards Program and Cook County.

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

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**VILLAGE OF BRIDGEVIEW**

**NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION**

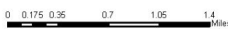
**TYPE**

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

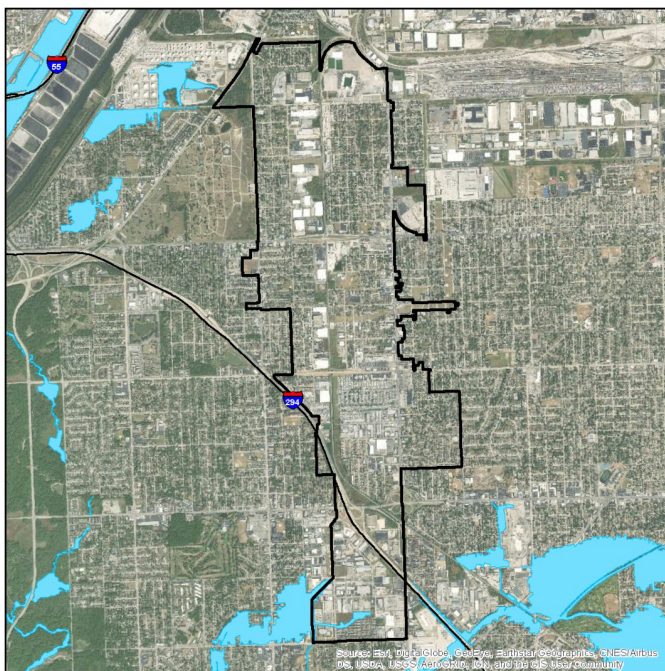
Data provided by the Illinois State Geological Survey and Cook County.

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series 2789 Map of Surficial Deposits and Materials in the Eastern and Central United States (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean H. 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, 2003) 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.

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



**VILLAGE OF BRIDGEVIEW**

**COOK COUNTY MWRDGC 100-YEAR INUNDATION AREA**

- 100-year Inundation Area

MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

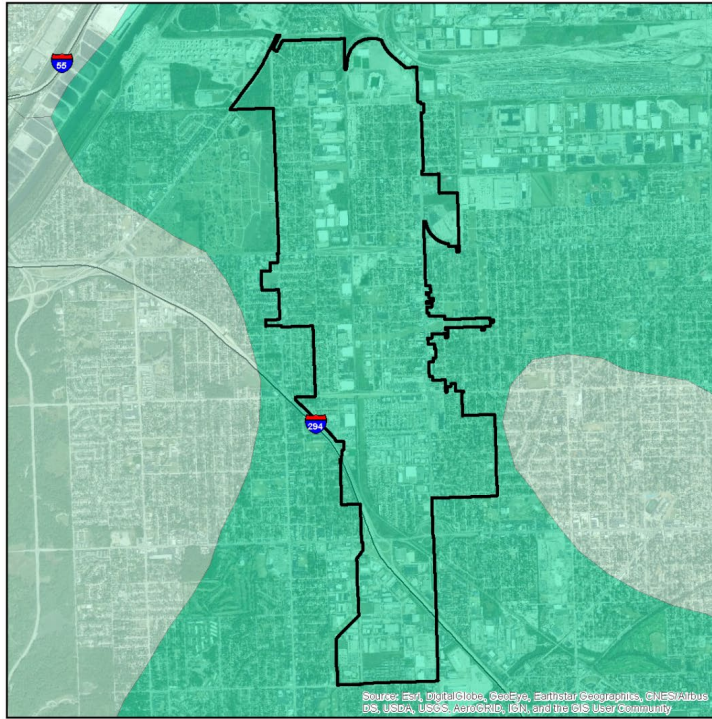
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**DISCLAIMER:** The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory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



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





**VILLAGE OF  
BRIDGEVIEW**

**LIQUEFACTION SUSCEPTIBILITY**



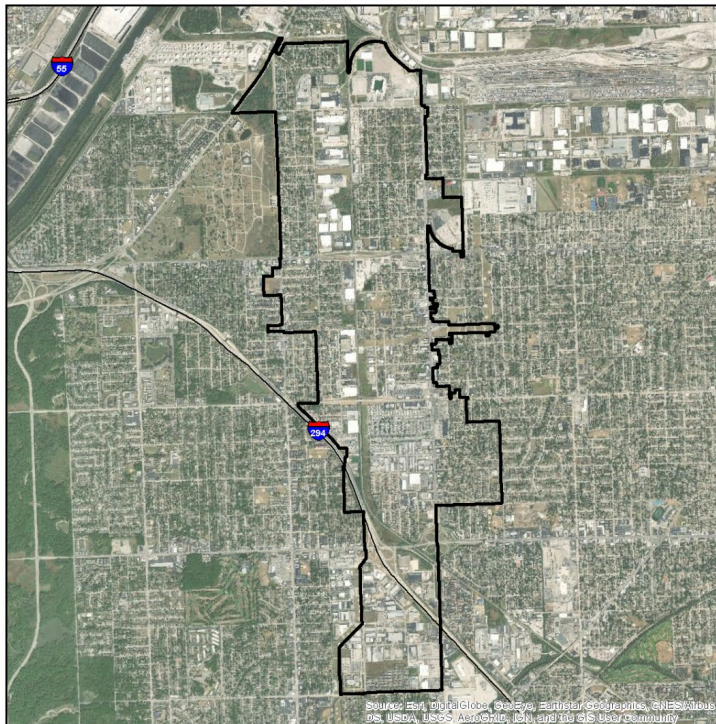
Data provided by the Illinois State Geological Survey and Cook County.

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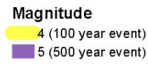


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**CITY OF  
BRIDGEVIEW**

**100- AND 500- YEAR  
TORNADO EVENTS**



Historic tornado data provided by NOAA/NWS showing the initial points and paths of all F4 and F5 events observed from 1950 to 2017.



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