

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

Bedford Park Annex

FINAL

July 2019

Prepared for:



Cook County
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Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
Sean M. Maloy, Fire Chief 6820 South Archer Road Bedford Park, IL 60501 Telephone: 708-516-6450 Email Address: smaloy@bedfordparkfd.org	William Thomas, Deputy Fire Chief 6820 South Archer Road Bedford Park, IL 60501 Telephone: 708-516-6452 Email Address: wthomas@bedfordparkfd.org

Jurisdiction Profile

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

- **Date of Incorporation:** 1940
- **Current Population:** The 2010 US Census population was 588 and the 2016 estimated population was 582.
- **Population Growth:** Based on historical figures the population of the Village will remain flat due to the small geographical area zoned for residential occupancies. Should the village leadership decide to change the current zoning of the town to include more residential units there could be large scale growth. The population change from 2010 to 2016 was approximately -1.02%.
- **Location and Description:** The Village of Bedford Park is a suburb of Chicago, located on the southwest side of the city only two blocks from Midway Airport. The eastern border of the Village is on Cicero Avenue (IL Rt. 50) and runs west for about five miles to the Des Plaines River. The village borders the City of Chicago and the Village of Summit on the north and the Villages of Justice and Bridgeview and the City of Burbank on the south.
- **Brief History:** The Village of Bedford Park was incorporated in 1940. However, settlement of both businesses and residents predates the incorporation date. The Corn Products Refining Company moved to the area in 1907. Also during the early 1900s, a railroad yard was built that brought in business to the east side of what is now Bedford Park. These two developments, still in Bedford Park today, drove the development of the Village.
- **Climate:** The climate of Chicago is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and often humid summers; pleasant autumns; and cold winters. Annual precipitation is average, and reaches its lowest points in the months of January and February, and peaks in the months of May and June.
- **Governing Body Format:** The Village of Bedford Park is governed by a Village President and six trustees, all elected at large for four year terms. This body will assume the responsibility for the adoption and implementation of this plan. There are four (4) departments providing services: Fire, Police, Water, and Public Works. There are also several community based committees established under the charter that report to the Village President. Bedford Park is in Illinois' 3rd congressional district.
- **Development Trends:** The Village of Bedford Park is land locked on all sides by other established communities. There is not an opportunity to annex land unless another town was to de-annex an area. The current zoning has changed little in over 20 years and most of the property in the village has been developed.

Capability Assessment

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

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Yes	No	No	Yes	IBC-2000 with amendments. Title VII - Bedford Park Village Code. Ord. 01-1103
Zonings	Yes	No	No	Yes	Title VI- Bedford Park Village Code. Ord. 37, 9-11-41 (amended several times).
Subdivisions	Yes	No	No	No	Title VIA – Bedford Park Village Code. Ord. 644, 4-15-76.
Stormwater Management	Yes	No	Yes	No	Title VIII –Bedford Park Village Code. Ord. 09-1294. 2009
Post Disaster Recovery	Yes	No	No	No	Title II Chap 2. Bedford Park Village Code. Ord. 86-777. 1986
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	
Site Plan Review	Yes	No	No	No	

Public Health and Safety	No	No	No	No	Cook County Board of Health. Title IV Bedford Park Village Code.
Environmental Protection	No	No	No	No	Air Pollution control. Title IV, Chap 3. Bedford Park Village Code. Ord. 522, 5-1-1967.
Planning Documents					
General or Comprehensive Plan	No	No	No	No	
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					N/A
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	No	No	
Capital Improvement Plan	Yes	No	No	No	
<i>What types of capital facilities does the plan address?</i>					Municipal buildings, streets, water mains, sewers, retention basins
<i>How often is the plan revised/updated?</i>					Annually
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook County 6b program.
Shoreline Management Plan	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	Yes	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	Yes	No	Cook County DPH

TABLE: FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	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	No
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	N/A

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	Available?	Department/Agency/Position

Planners or engineers with knowledge of land development and land management practices	Yes	Building
Engineers or professionals trained in building or infrastructure construction practices	Yes	Building
Planners or engineers with an understanding of natural hazards	Yes	Building
Staff with training in benefit/cost analysis	No	N/A
Surveyors	Yes	Village contractor/engineering firm
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	N/A
Emergency manager	Yes	Emergency Services and Disaster Agency coordinator
Grant writers	Yes	Fire Dept.

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	Village Engineer
Who is your jurisdiction’s floodplain administrator? (department/position)	Village Engineer
What is the date of adoption of your flood damage prevention ordinance?	12-21-2000
When was the most recent Community Assistance Visit or Community Assistance Contact?	Unknown
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. We have issues with urban runoff not associated with flood plain maps.
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?	Urban runoff
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

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	N/A
Public Protection/ISO	Yes	Class 2	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: 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: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Extreme Cold/Snow	-	1/6/2014	-
Severe Storms/Wind/Flooding	DR-4116	4/26/2013	-
Winter Storm/Snow	DR-1960	1/30/2013	-
Winter Storm/Snow	DR-1960	1/31/2011	-
Storms/Flooding	DR-1935	7/19/2010	-
Storms/Flooding	DR-1800	9/13/2008	-
Storms/Flooding	DR-1729	8/20/2007	-
Winter Storm	EM-3161	12/11/2000	-
Winter Storm	EM-2124	1/1/1999	-
Floods	DR-1188	8/16/1997	-
Floods	DR-1129	7/17/1996	-

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.

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

Flood: Urban flooding incidences have occurred frequently within Bedford Park. Bedford Park is located within a very high urban flooding susceptibility zone, so mitigation actions for this hazard are of high priority to the Village.

Drought: Drought is a hazard that impacts the entire region, and even though a significant drought has not been experienced in Bedford Park within the last decade, the effects of climate change make this more of a risk worth mitigating going forward.

Hazard Risk Ranking

The *Hazard Risk Ranking Table* below presents the ranking of the hazards of concern. Hazard area extent and location maps are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

TABLE: HAZARD RISK RANKING		
Rank	Hazard Type	Risk Rating Score (Probability x impact)
1	Severe Winter Weather	54
2	Severe Weather	54
3	Flood	48
4	Tornado	33
5	Earthquake	26
6	Drought	8
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)
Action B4.1 —Upgrade emergency alert system						
Completed	Flood, Severe weather	1, 5	EM	\$20,000; Low	General fund	Completed
Action B4.2 —Assist vulnerable populations by providing temporary shelter locations						
Ongoing	All Hazards	1, 8, 12	EM/Park District	\$1,000; Low	General fund	Short-term
Action B4.3 —Adopt policies to reduce storm water runoff - basin maintenance						
Completed	Flood	2, 4, 9, 10	Planning/Public Works	Low	Capital fund	Completed
Action B4.4 —Educate property owners about flood insurance and mitigation techniques						
Completed	Flood	2, 3, 4, 6, 8, 10	EM	\$500: Low	EM budget	Completed
Action B4.5 —Conduct tornado awareness activities						

Ongoing	Tornado	6, 8, 10	EM	\$500; Low	EM budget	Short-term
Action B4.6 —Adopt and enforce building codes						
Completed	All Hazards	2, 3, 4, 8, 10	EM/Planning	Low	EM budget	Completed
Action B4.7 —Increase earthquake risk awareness						
Ongoing	Earthquake	6	EM	Low	EM budget	Short-term
Action B4.8 —Protect power lines (bury overhead lines)						
Completed	Severe Weather, Severe Winter Weather	2, 4, 8, 10	Building/Planning	\$25,000; High	General fund, FEMA Mitigation Grants	Completed
Action B4.9 —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.						
Ongoing	All	7, 13	Bedford Park	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action B4.10 —Continue to support the countywide actions identified in this plan.						
Ongoing	All	All	Bedford Park	Low	General Fund	Short- and long-term
Action B4.11 —Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	DHSEM/Bedford Park	Low	General Fund	Short-term
Action B4.12 —Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.						
Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Bedford Park	Low	General Fund	Long-term
Action B4.13 —Continue to maintain compliance and 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	Bedford Park	Low	General Fund	Short-term and ongoing
Action B4.14 —Where feasible, implement a program to record high water marks following high-water events						
Removed	Flooding, Severe Weather	3, 6, 9	Bedford Park	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Removed
Action B4.15 —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
Completed	All	3, 4, 6, 10, 13	Bedford Park/Building Department	Low	General Fund	Completed
Action B4.16 —Improve stormwater management planning.						
New	Flood	2, 3, 4, 9, 10	Bedford Park FD	\$20,000; Medium	Local Funds	2021
Action B4.17 —Educate residents on water saving techniques						
New	Drought	6	Bedford Park FD	\$1,000; Low	Local Funds	2020
Action B4.18 —Require water conservation during drought conditions						
New	Drought	13	Bedford Park FD	\$300; Low	Local Funds	2020
(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: 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	1	High	Medium	Yes	Yes	Yes	Medium

2	3	High	Low	Yes	No	Yes	High
3	4	Medium	Low	Yes	No	Yes	High
4	6	Medium	Low	Yes	No	Yes	High
5	3	Medium	Low	Yes	No	Yes	High
6	5	Low	Low	Yes	No	Yes	High
7	1	Medium	Low	Yes	No	Yes	High
8	4	Medium	Medium	No	Yes	Yes	Low
9	2	High	High	Yes	Yes	No	High
10	13	High	Low	Yes	No	Yes	High
11	3	High	Low	Yes	No	Yes	High
12	9	High	Low	Yes	No	Yes	Medium
13	3	High	Low	Yes	No	Yes	Medium
14	3	TBD	Medium	TBD	Yes	Yes	Low
15	5	High	Low	Yes	No	Yes	High
16	5	Medium	Medium	Yes	No	Yes	Medium
17	1	Low	Low	Yes	No	Yes	Medium
18	1	Medium	Low	Yes	No	Yes	Medium

(a) See Chapter 1 for explanation of priorities.

New Mitigation Actions

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

Action B - 4.16

Mitigation Action	Improve stormwater management planning.
Year Initiated	2019
Applicable Jurisdiction	Bedford Park
Lead Agency/Organization	Bedford Park FD
Supporting Agencies/Organizations	Bedford Park FD
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events. • Develop, promote, and integrate mitigation action plans.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. • Integrate hazard mitigation policies into land use plans in the planning area. • Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans. • Strengthen codes and land use planning and their enforcement, so that new construction or redevelopment can avoid or withstand the impacts of natural hazards.
Potential Funding Source	Local Funds
Estimated Cost	\$20,000
Benefits (loss avoided)	Completing a storm water drainage study will help to plan for areas that need better retention
Projected Completion Date	2021
Priority and Level of Importance (Low, Medium, High)	Medium Priority
Benefit Analysis (Low, Medium, High)	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.
Cost Analysis (Low, Medium, High)	Medium-The project could be implemented with existing funding but would require a re-apportionment of the budget

	or a budget amendment, or the cost of the project would have to be spread over multiple years.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Improve stormwater management planning by updating the management plan with data from last few years. update ordinances to reflect new study.

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

Mitigated Hazards	
	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
	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 - 4.17

Mitigation Action	Educate residents on water saving techniques
Year Initiated	2019
Applicable Jurisdiction	Bedford Park
Lead Agency/Organization	Bedford Park FD
Supporting Agencies/Organizations	Bedford Park FD
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Promote public understanding of and support for hazard mitigation.
Applicable Objective	<ul style="list-style-type: none"> • Use the best available data, science and technologies to educate the public and to improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types and community development patterns, and the measures needed to protect life safety.
Potential Funding Source	Local Funds
Estimated Cost	\$1000
Benefits (loss avoided)	Water conservation
Projected Completion Date	2020
Priority and Level of Importance (Low, Medium, High)	Medium Priority
Benefit Analysis (Low, Medium, High)	Low - Long-term benefits of the project are difficult to quantify in the short term.
Cost Analysis (Low, Medium, High)	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Research and develop educational programs for the public on water saving measures.

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	
2020		
2021		
2022		

2023		
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Mitigated Hazards	
	All Hazards
	Dam/Levee Failure
X	Drought
	Earthquake
	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
	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 - 4.18

Mitigation Action	Require water conservation during drought conditions
Year Initiated	2019
Applicable Jurisdiction	Bedford Park FD
Lead Agency/Organization	Bedford Park FD
Supporting Agencies/Organizations	Bedford Park FD
Applicable Goal	<ul style="list-style-type: none"> Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.
Applicable Objective	<ul style="list-style-type: none"> Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.
Potential Funding Source	Local Funds
Estimated Cost	\$300
Benefits (loss avoided)	Water conservation
Projected Completion Date	2020
Priority and Level of Importance (Low, Medium, High)	Medium Priority
Benefit Analysis (Low, Medium, High)	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.
Cost Analysis (Low, Medium, High)	Low - The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Research and develop new ordinances to manage water conservation such as "no watering/no car washing" during drought conditions.

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

Mitigated Hazards

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

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 - 4.2

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.2	Assist vulnerable populations by providing temporary shelter locations	
Status Description: Yes	Working with park district (short term) and local hotels (long term) to provide shelter	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action B - 4.5

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.5	Conduct tornado awareness activities	
Status Description: Yes	Education program ongoing.	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action B - 4.7

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.7	Increase earthquake risk awareness	
Status Description: Yes	Continue to publicize earthquake awareness. Include earthquake awareness literature	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action B - 4.9

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.9	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	Properties have been identified and are on "watch" list.	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action B - 4.10

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.10	Continue to support the countywide actions identified in this plan.	
Status Description: Yes	Continue to support plan and move forward on action items	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action B - 4.11

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.11	Actively participate in the plan maintenance strategy identified in this plan.	
Status Description: Yes	Continue to participate in plan	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action B - 4.12

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.12	Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.	
Status Description: Yes	Investigating storm ready and tree city. Participating in Community Rating System	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action B - 4.13

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.13	Continue to maintain compliance and 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		O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = 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 - 4.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.1	Upgrade emergency alert system	
Status Description: Yes	New radio receivers were installed on the alert sirens in 2015. All weather-proof housings had maintenance work completed in 2017)	C
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action B - 4.3

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.3	Adopt policies to reduce storm water runoff - basin maintenance	
Status Description: Yes	Policies in place and ordinances updated. New retention pond in planning stage (acquiring property)	C
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action B - 4.4

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.4	Educate property owners about flood insurance and mitigation techniques	
Status Description: Yes	Education program ongoing. Rain barrel program implemented. Building code updated to have any downspouts that enter the storm sewers to be diverted to rain barrels or into yard.	C
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action B - 4.6

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.6	Adopt and enforce building codes	
Status Description: Yes	All building and fire codes have been updated to 2015 standards.	C
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action B - 4.8

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.8	Protect power lines (bury overhead lines)	
Status Description: Yes	New pump station being built to replace old station. Will have underground electrical service. All critical village buildings are underground electric service (2018).	C
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action B - 4.15

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B - 4.15	Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.	
Status Description: Yes	In place	C
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Future Needs to Better Understand Risk/Vulnerability

No future needs have been identified at this time.

Additional Comments

No additional comments at this time.

HAZUS-MH Risk Assessment Results

BEDFORD PARK EXISTING CONDITIONS	
2010 Population	580
Total Assessed Value of Structures and Contents	\$2,526,687,674
Area in 100-Year Floodplain	131.97 acres
Area in 500-Year Floodplain	131.97 acres
Number of Critical Facilities	85

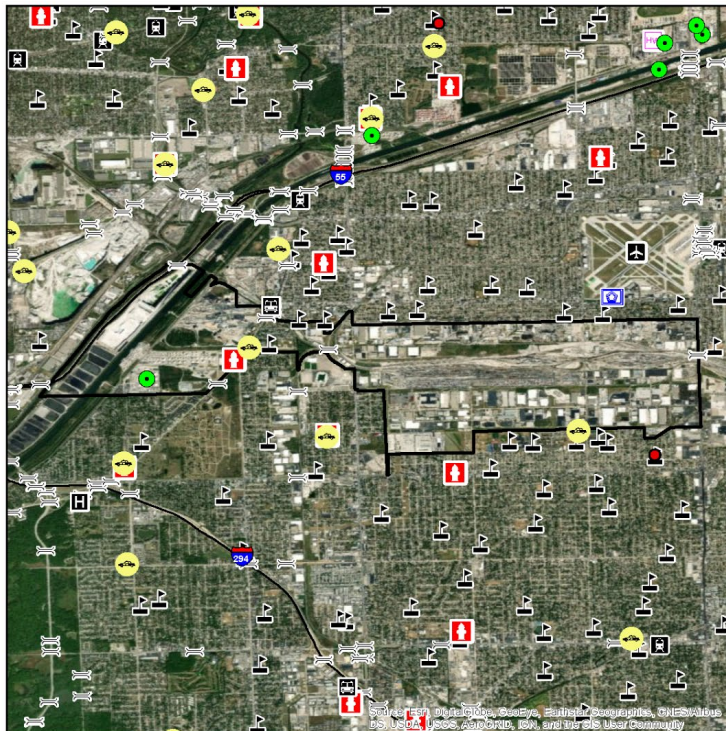
HAZARD EXPOSURE IN BEDFORD PARK						
	Number Exposed		Value Exposed to Hazard		Total	% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents		
Dam Failure						
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%
Touhy	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%
Flood						
100-Year	0	0	\$0	\$0	\$0	0.0%

500-Year	0	0	\$0	\$0	\$0	0.0%
Tornado						
100-Year	—	—	\$111,209,982	\$147,262,473	\$258,472,455	10.23%
500-Year	—	—	\$196,779,022	\$208,056,759	\$404,835,781	16.02%

ESTIMATED PROPERTY DAMAGE VALUES IN BEDFORD PARK				
	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	\$58,869,191	\$21,466,900	\$80,336,091	3.18%
Flood				
10-Year	\$0	\$0	\$0	0.00%
100-Year	\$0	\$0	\$0	0.00%
500-Year	\$0	\$0	\$0	0.00%

Tornado				
100-Year	\$11,120,998	\$14,726,247	\$25,847,246	1.02%
500-Year	\$28,729,737	\$30,376,287	\$59,106,024	2.34%

Hazard Mapping



VILLAGE OF BEDFORD PARK

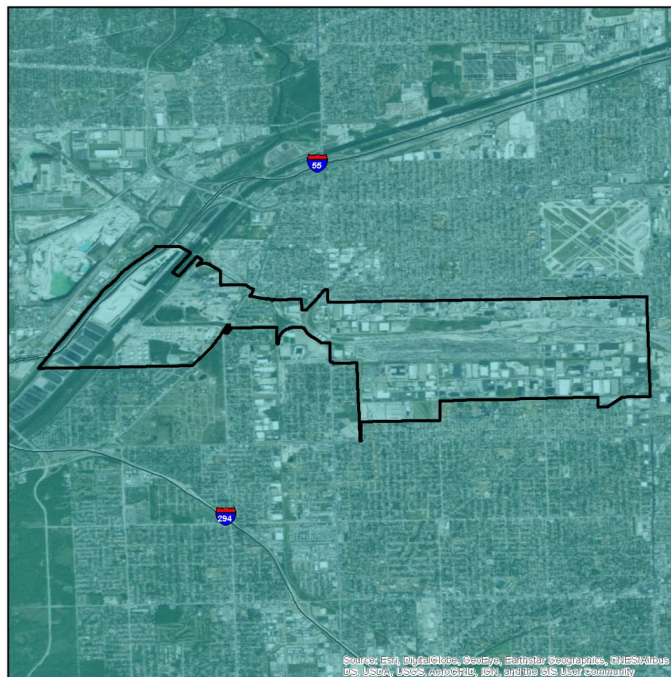
CRITICAL INFRASTRUCTURE

- 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



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



VILLAGE OF BEDFORD PARK

PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

- Mercalli Scale, Potential Shaking
- II/III Weak

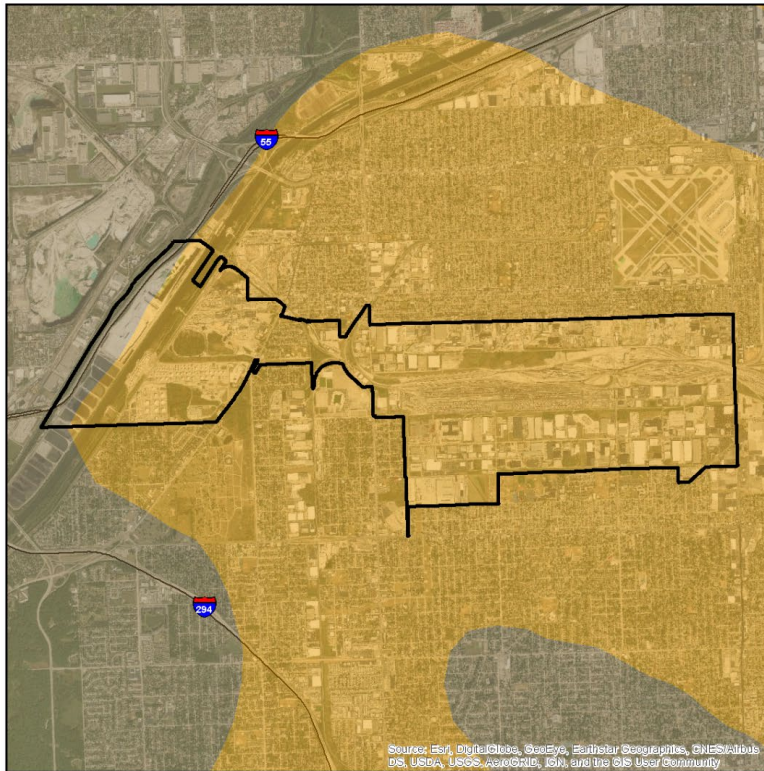
Data provided by the USGS Earthquake Hazards Program and Cook County.

Probabilistic seismic-haz and maps were prepared for the conterminous United States for 2014 portraying 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 100 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 750 m/s in the top 30 meters corresponding to the boundary between NEHRP (National Earthquake Hazards Reduction Program) site classes B and C.

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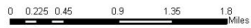
**VILLAGE OF
BEDFORD PARK**
NATIONAL EARTHQUAKE HAZARD
REDUCTION PROGRAM (NEHRP)
SOIL CLASSIFICATION

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

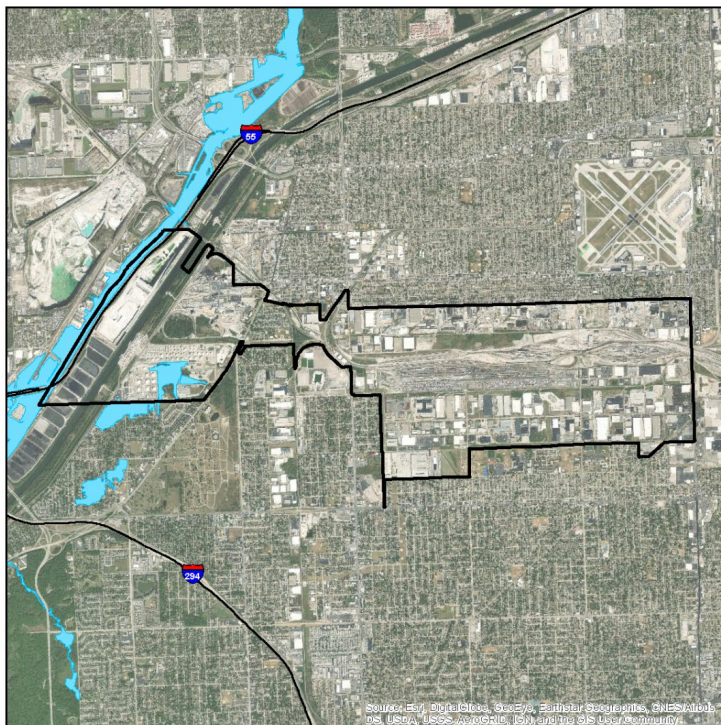
Data provided by the Illinois State Geological Survey and Cook County.

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map, and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-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 M. 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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**VILLAGE OF
BEDFORD PARK**
COOK COUNTY MWRDGC
100-YEAR INUNDATION AREA

- 100-year Inundation Area

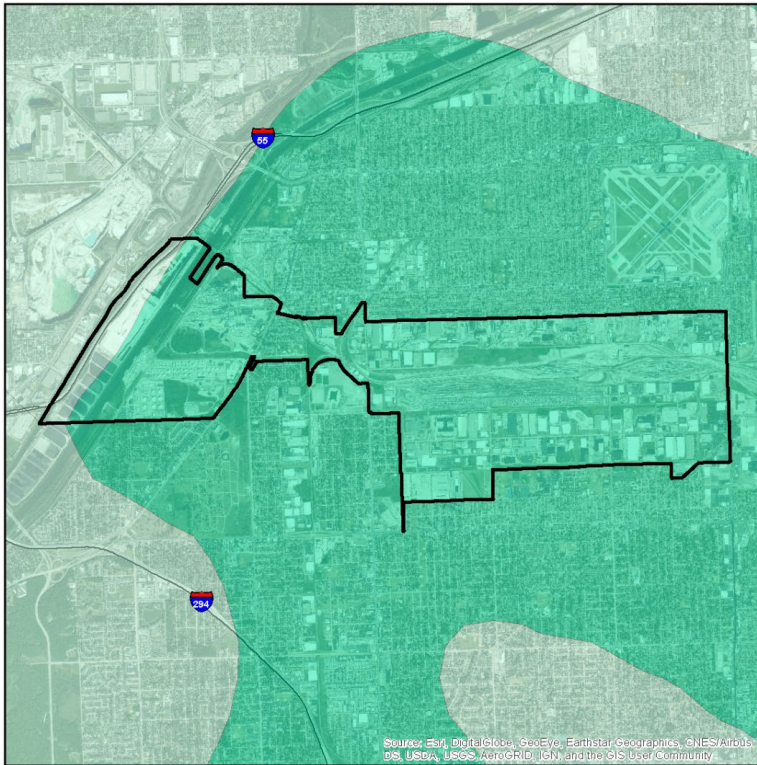
MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

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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 BEDFORD PARK

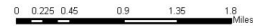
LIQUEFACTION SUSCEPTIBILITY



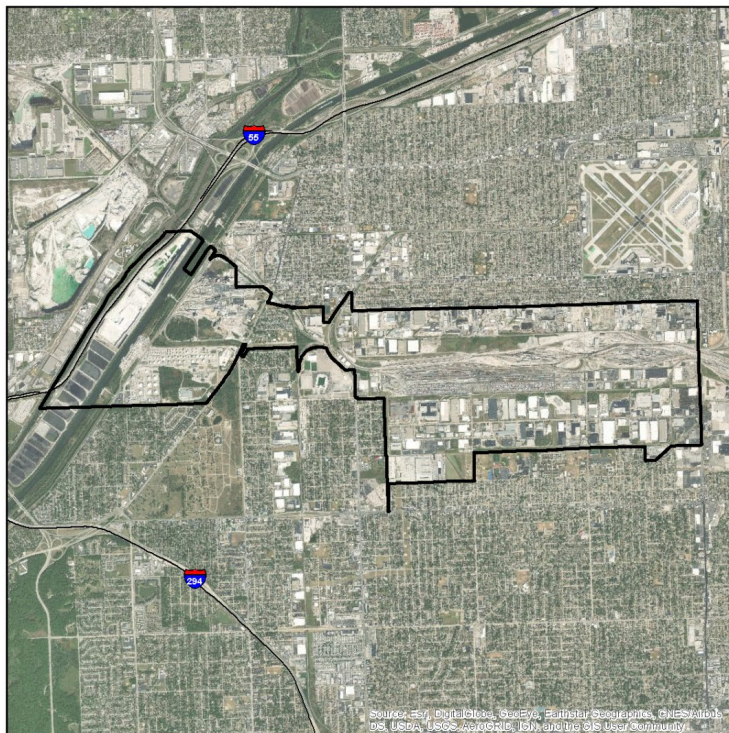
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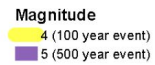


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



VILLAGE OF BEDFORD PARK

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