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

Bartlett Annex

FINAL

July 2019

Prepared for:



Cook County Department of Homeland Security and Emergency Management 69 W. Washington St., Suite 2600 Chicago, Illinois 60602

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Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact	Alternate Point of Contact
Michael McGuigan, EMA	James Durbin, Deputy Chief	Brian Goralski, Building Director
630-742-6295	630-837-0846 X 5105	630-837-0800
<u>mmcguigan@vbartlett.org</u>	jdurbin@vbartlett.org	<u>bgoralski@vbartlett.org</u>

Jurisdiction Profile

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

- Date of Incorporation: 1891
- Current Population: In 2019, 41,208 (100% urban, 0% rural). (City-Data)
- Population Growth: Based on the data tracked by the U.S. Census Bureau, population change from 2000 to 2010 is 8.9%
- Location and Description: Bartlett is located at Latitude: 41°995'0 N Longitude: 88°185'6 W.
 Bartlett is a suburb of Chicago in Cook, DuPage, and Kane County Illinois, United States, approximately 40 miles northwest of Chicago. The area total is 15.88 sq mi and 10,165 acres.
 Bartlett has 1 Metra station connecting it to downtown Chicago, on the Big Timber Line.
- Brief History: In 1891 Bartlett was founded by Luther Bartlett.
- Climate: In Bartlett, the summers are warm and wet, the winters are freezing and windy, and it is partly cloudy year round. Over the year, the
- temperature typically varies from 19°F to 83°F and is rarely below -0°F or above 91°F.
- Governing Body Format: The Village of Bartlett is governed by a Village President and sixmember Board of Trustees, all of whom are elected for four-year staggered terms, and who serve with pay. The Board is the legislative body of the Village government. All administrative work is performed under the direction of the Village Administrator, who is salaried and appointed by the Village President and Board of Trustees. Bartlett is represented by the 6th Congressional District of Illinois, 22nd District of the Illinois Senate and the 44th District of the Illinois House of Representatives.
- Development Trends: Bartlett has seen a steady growth of housing and business over the past decade.

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 REGULA	FORY CAPA	ABILITY			
	Authority	State or Federal Prohibitions	Jurisdictional	State Mandated	Comments
Codes, Ordinances & Requir	ements		•		
Building Code	Yes	No	No	Yes	IRC 2012 IBC 2012 2018 IL Energy
Zonings	Yes	No	No	Yes	Ord. 2011-70, 10-18-2011
Subdivisions	Yes	No	No	-	
Stormwater Management	Yes- Partial	No	DuPage, Kane		DuPage Co. 8-1-19 Stormwater Ordinance
Post Disaster Recovery	Yes	_	-	-	
Real Estate Disclosure	No	_	-	-	
Growth Management	Yes	_	-	_	
Site Plan Review	Yes	No	No	No	
Public Health and Safety	Yes	No	-	_	
Environmental Protection	Yes	-	-	-	
Planning Documents					
General or Comprehensive Plan	Yes	-	Yes	Yes	
Is the plan equipped to provi	de linkage	to this mitigo	ation plan?		
Floodplain or Basin Plan	Yes	No	Yes	Yes	DuPage County and Cook County
Stormwater Plan	Yes	No	Yes	Yes	DuPage County
Capital Improvement Plan	Yes	No	No	Yes	DuPage County and Cook County
What types of capital facilitie	es does the	plan address	s?		
How often is the plan revised	l/updated :				
Habitat Conservation Plan	No	No	-	_	
Economic Development Plan	Yes	No	-	-	
Shoreline Management Plan	No	-	-	_	
Response/Recovery Plannin	g				
Comprehensive Emergency Management Plan	Yes	No	-	-	Cook County DHSEM

Threat and Hazard	Yes	No	-	_	Cook County DHSEM
Identification and Risk					
Assessment					
Terrorism Plan	Yes	No	-	_	Cook County DHSEM
Post-Disaster Recovery Plan	Yes	No	-	-	Cook County DHSEM
Continuity of Operations	Yes	No	-	-	Cook County DHSEM
Plan					
Public Health Plans	Yes	No	-	_	

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

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY				
Staff/Personnel Resources	Available?	Department/Agency/Position		
Planners or engineers with knowledge of land development	Yes	Public Works		
and land management practices		Engineer/Planning		
		Development Service		
Engineers or professionals trained in building or infrastructure	Yes	Public Works		
construction practices				
Planners or engineers with an understanding of natural	Yes	Public Works		
hazards				
Staff with training in benefit/cost analysis	-			
Surveyors	Yes	Public Works Engineer		
Personnel skilled or trained in GIS applications	Yes	IT Department		
Scientist familiar with natural hazards in local area	No			
Emergency manager	Yes	Police Department EMA		
		coordinator		
Grant writers	Yes	Police Department		
		Accreditation Manager		

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your	Building Department and
jurisdiction?	Public Works

Who is your jurisdiction's floodplain administrator?	Building Department/Building
(department/position)	Director
Are any certified floodplain managers on staff in your jurisdiction?	No
	7/16/19
ordinance?	
When was the most recent Community Assistance Visit or Community	May 2017; 5 year CRS Cycle
Assistance Contact?	Visit
Does your jurisdiction have any outstanding NFIP compliance violations	No
that need to be addressed? If so, please state what they are.	
Do your flood hazard maps adequately address the flood risk within your	Yes
jurisdiction? (If no, please state why)	
Does your floodplain management staff need any assistance or training	No
to support its floodplain management program? If so, what type of	
assistance/training is needed?	
Does your jurisdiction participate in the Community Rating System	
(CRS)? If so, is your jurisdiction seeking to improve its CRS Classification?	Yes; Class 6 jurisdiction
If not, is your jurisdiction interested in joining the CRS program?	

TABLE: COMMUNITY CLASSIFICATIONS					
	Participating?	Classification	Date Classified		
Community Rating System	Yes	6	3/2018		
Building Code Effectiveness Grading Schedule	Yes	4 Res. 3 Com.	10/2016		
Public Protection/ISO	Yes	4, 3	2016		
StormReady	Yes				
Tree City USA	Yes				

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: 0

TABLE: NATURAL HAZARD EVENTS					
Type of Event	FEMA Disaster Number	Date	Preliminary Damage		
	(if applicable)		Assessment		
Flash Flood	-	5/30/2018	\$50,000 in property		
			damage		
Flood	-	4/17/2019 - 4/19/2019	No property damage		
Hail	-	6/28/2012	-		
Blizzard	-	2/1/2011 - 2/3/2011	No property damage		
Lightning	-	4/5/2010	\$10,000 in property		
			damage.		
Flood	-	4/26/2009	-		
Severe Weather	-	8/4/2008	\$50,000 in property		
			damage		
Lightning	-	5/2/2008	\$10,000 in property		
			damage.		
Hail	-	3/1/2004	-		
Hail	-	8/1/2003	-		

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.

Flood/Severe Weather: Multiple events have caused extensive property damage in the area.

Hail: This event occurs during thunderstorms, which often cause flooding and severe wind events. Power line, structures, and trees are frequently damaged.

Tornado/High Winds: High winds have historically affected residential areas, causing downed trees and downed electrical lines.

Snow: Senior citizens and individuals with functional and access needs in the community have historically had issues when there is a large amount of snow or severe winter weather.

Extreme Cold: Senior citizen complexes/housing, and those that reside in those facilities are especially vulnerable during extreme cold incidents.

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 Weather	51		
2	Severe Winter Weather	51		
3	Tornado	42		
4	Flood	32		
5	Earthquake	32		
6	Drought	2		
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: H	ABLE: HAZARD MITIGATION ACTION PLAN MATRIX						
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	
Action B	1.1—Provide Bus	inesses with Rap	oid Response Fir	st Aid Kits 1	o be used On-S	ite by First	
Respond	lers during an Em	ergency					
New	Extreme Heat, High Wind, Blizzard, Extreme Cold, Tornado, Hazardous Materials Incident	1, 2, 3, 12, 13	Bartlett Police Department	TBD	TBD	2020	
· · –	ing indicates con entation within fiv						

TABLE: MI	TABLE: MITIGATION STRATEGY PRIORITY SCHEDULE							
	Number of Objectives Met	Benefits	Costs	· ·	Grant- Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority (a)	
1	5	Medium	Medium	Yes	Yes	Unknown	High	
(a) See Chapter 1 for explanation of priorities.								

New Mitigation Actions

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

Action B1.1

National Action	Provide Businesses with Rapid Response First Aid Kits to			
Mitigation Action	be used On-Site by First Responders during an Emergency			
Year Initiated	2019			
Applicable Jurisdiction	Village of Bartlett			
Lead Agency/Organization	Bartlett Police Department			
Supporting Agencies/Organizations				
Applicable Goal	 Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. 			
Applicable Objective	 Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. 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. Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area. Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes. 			
Potential Funding Source	TBD			
Estimated Cost	ТВО			
Benefits (loss avoided)	Enhanced Citizen Response			
Projected Completion Date	2020			
Priority and Level of Importance (Low, Medium, High)	High 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 Provide businesses, through our Bartlett PD Business Academy w				
Plan and Project	response first aid kits on site to be utilized by first responders in response to			
Description:	human-caused or natural disaster casualty situations.			

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

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

Ongoing Mitigation Actions

Bartlett has no ongoing actions at this time.

Completed Mitigation Actions

Bartlett has no completed actions at this time.

Future Needs to Better Understand Risk/Vulnerability

None at this time.

Additional Comments

None at this time.

HAZUS-MH Risk Assessment Results

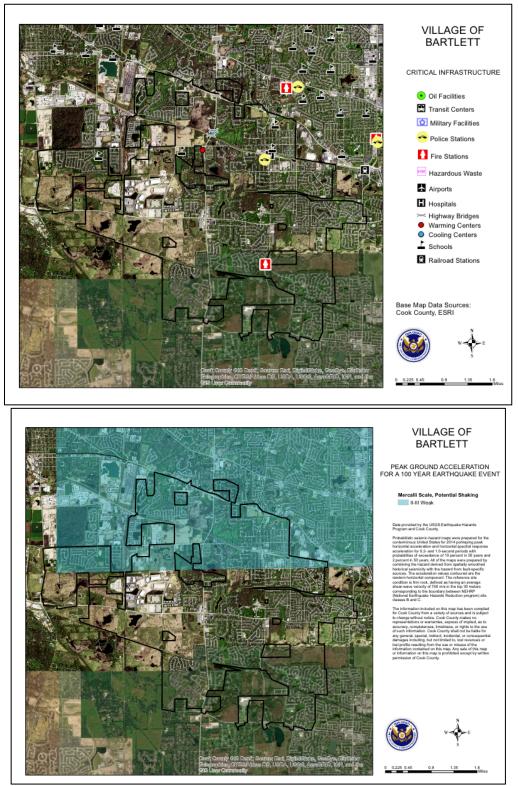
BARTLETT EXISTING CONDITIONS					
2010 Population	41,208				
Total Assessed Value of Structures and Contents	\$6,463,810,000				
Area in 100-Year Floodplain	351.791 acres				
Area in 500-Year Floodplain	502.558 acres				
Number of Critical Facilities	39				

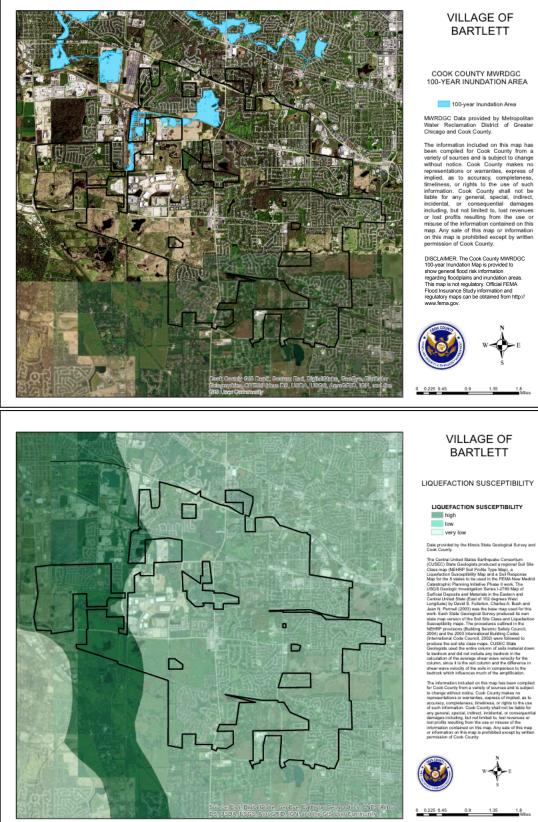
HAZARD EXPOSURE IN BARTLETT							
	Number Exp	posed	Value Exposed to Hazard			% of Total	
	Population	Buildings	Structure	Contents	Total	Assessed Value Exposed	
Dam Failur	e						
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%	
Touhy	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%	
Flood							
100-Year	660	1	\$123,319,000	\$1,210,000	\$124,529,000	1.92%	
500-Year	660	2	\$260,000,000	\$1,261,000	\$261,261,000	4.04%	
Tornado							
100-Year	-	-	\$353,584,676	\$214,392,943	\$567,977,916	8.79%	
500-Year	-	-	\$1,172,585,479	\$1,430,943,562	\$2,603,529,041	40.27%	

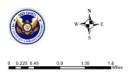
ESTIMATED PROPERTY DAMAGE VALUES IN BARTLETT

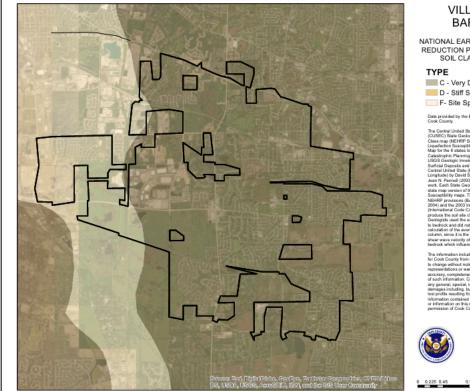
	Estimated Damage	ard	% of Total					
	Building	Contents	Total	Assessed Value Damaged				
Dam Failure								
Buffalo Creek	0	\$0	\$0	0.00%				
Touhy	0	\$0	\$0	0.00%				
U. Salt Cr. #2	0	\$0	\$0	0.00%				
U. Salt Cr. #3	0	\$0	\$0	0.00%				
U. Salt Cr. #4	0	\$0	\$0	0.00%				
Earthquake	Earthquake							
1909 Historical Event	\$1,379,655.95	\$373,094.17	\$1,752,750.12	0.027%				
Flood	Flood							
100-Year	\$123,319,000	\$1,210,000	\$124,592,000	1.93%				
500-Year	\$260,000,000	\$1,261,000	\$261,261,000	4.04%				
Tornado								
100-Year	\$353,584,676	\$214,392,943	\$567,977,916	8.79%				
500-Year	\$1,172,585,479	\$1,430,943,562	\$2,603,529,041	40.27%				

Hazard Mapping









VILLAGE OF BARTLETT

NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

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

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

Data provided by the litrois studie Gaucegical Survey and Cook County The Cartral Uhited States Earthquake Consortium (CUSEC) State Caleogicals motioned a regional Sol Boo Lagar map in Ertergetike Theory and the States and the States and States and States and States (CUSEC) State Countergetike Places II and States (Custor) and States II and States II and States (Custor) and States II and States II and States (Custor) and States (Custor) and States II and Custor) (Custor) States (Custor) and States II and Custor) (Custor) (Custor

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