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

Melrose Park Annex

FINAL

July 2019

Prepared for:



Cook County
Department of Homeland Security and Emergency Management
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Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
Philip C. Schwartz, Chief of Police	George Stevenson, Commander
2309 Main Street	2309 Main Street
Melrose Park, Il 60160	Melrose Park, Il 60160
Telephone: 708-649-8000	Telephone 708- 649-8053
chief@mpdhs.org	training@mpdhs.org

Jurisdiction Profile

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

• Date of Incorporation: 1882

• Current Population: 25,411

- Population Growth: Looking at the Cohort-Component projection for Melrose Park, we see that the population between ages 20- 24 will continue to be the largest cohort in 2030, and the number of females age 70 will continue to outnumber the males in that age group; however, the 2030 projection shows that there will be an increase in the population cohort between 60-70, as well as a substantial increase in children under 4 years. Census data also shows that the average family size in Melrose Park, 3.5 people, already higher than the national average, 2.6 people, might increase over the next 20 years. From 2010 to 2016, the population of Melrose Park has been relatively consistent.
- Location and Description: The Village of Melrose Park is located within Cook County, Illinois, approximately 12 miles west of the Chicago Loop. The municipality, 4.24 sq. mi total, is bordered by River Forest, Maywood, Bellwood, Northlake, Franklin Park, River Grove and Berkley, Illinois. North Avenue roughly bisects the municipality in the East-West direction. The municipality's central location is near a major expressway system, O'Hare Airport, and downtown Chicago, all accessible by the Metra and bus routes running through the area. The Maywood Metra station on the Union Pacific West Line (UP-W) is located along Melrose Park's southern border. This connects the municipality East-West between downtown Chicago and Elburn. The Metra-rail website lists connecting services to Pace Routes: 303,309, and 313. The 303 connects Melrose Park residents to the CTA blue line at its North and South terminations. The other two Pace routes connect with the CTA Green Line at several stations. Thatcher Woods and the Des Plaines River form the Eastern border of the municipality.
- Brief History: Melrose Park's history began in 1836, when Simon Z. Haven obtained a patent from the U.S. land office for 960 acres of Illinois land (at \$1.25 per acre), after it became a state in 1818. In 1849, the area was established as part of the Proviso Township. This development was followed shortly thereafter by the Ganela and Chicago Union Railroad, the first railroad to stretch west from Chicago, as well as construction of the first railroad bridge to cross the Des Plaines River. After falling on tough times financially in 1864, Haven's land was split into five, "lots" and put up for sale. Three of these lots were purchased by the Melrose Realty Company, established in 1871 by Allen Eaton and Edward Cuyler. These Chicago developers were two of the seven men who first established the Village of Maywood to the east of what is now Melrose Park. These three lots became the Melrose Subdivision and Town in 1871. Melrose Park's connection to the early railway system in the United States initiated the municipality's industrial history, a significant chapter in its 20th century development. Melrose Park experienced significant growth after World War I as an industrial suburb home to several large steel and construction manufacturers as well as a large lumber company. In 1926, the Proviso Freight Yards opened, reinforcing Melrose Park.
- Development Trends: Melrose Park's nickname is, "Corporate King of the Suburbs."
 Corporations like Alberto-Culver, Wilson Sporting Goods, Benjamin Moore Paint, Jewel-Osco,

Home Juice, Zenith, International Harvester, Navistar and many others have made or still call Melrose Park their home." In early 2019, Melrose Park officials announced that the village has annexed the Maywood Park Racetrack located at 8600 W. North Ave., which closed in 2015 after filing a Chapter 11 bankruptcy, making way for a major redevelopment of the site that would entail demolishing some structures on the property. Village officials expect the project to generate an estimated 400 construction jobs and up to 700 permanent jobs once the development is finished.

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 &	Requiremen	ts			
Building Code	Yes	No	No	Yes	International Residential Code, International Building Code, 2006
Zonings	Yes	No	No	Yes	Title 17 – Zoning, 2013
Subdivisions	Yes	No	No	Yes	Title 16 – Subdivisions
Stormwater Management	Yes	No	No	Yes	Title 15.68 Flood Damage Prevention Regulations, 2013
Post Disaster Recovery	No	No	Yes	No	
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	Title 15.04.160, 2013

Public Health and Safety	No	No	No	No	Cook County DPH		
Environmental Protection	No	No	No	No			
Planning Documents	Planning Documents						
General or Comprehensive Plan	Yes	No	No	No			
Is the plan equipped t	to provide link	kage to this mitig	gation plan? Yes, P	lan includes la	and use component		
Floodplain or Basin Plan	No	No	No	No			
Stormwater Plan	Yes	No	Yes	No	MWRD Detailed Watershed Plan		
Capital Improvement Plan	Yes	No	No	No			
What types of capital	facilities doe	s the plan addre	ss? Village owned	facilities and	nfrastructure		
How often is the plan	revised/upda	nted? Annually					
Habitat Conservation Plan	No	No	No	No			
Economic Development Plan	Yes	No	Yes	Yes	CCD of Planning		
Shoreline Management Plan	No	No	No	No	N/A		
Response/Recovery	Planning						
Comprehensive Emergency Management Plan	Yes	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					
Continuity of Operations Plan	No	Yes	Yes	No	Cook County DHSEM		

Public Health Plans	No	Yes	Yes	No	Cook County DHSEM
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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	Yes		
Withhold Public Expenditures in Hazard-Prone Areas	Yes		
State Sponsored Grant Programs	Yes		
Development Impact Fees for Homebuyers or Developers	Yes		

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, Public Works, Engineering		
Engineers or professionals trained in building or infrastructure construction practices	Yes	Building, Public Works, Engineering		
Planners or engineers with an understanding of natural hazards	Yes	Building, Public Works, Engineering, Homeland Security		
Staff with training in benefit/cost analysis	Yes	Finance Dept		
Surveyors	No			
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium, Engineering		

Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Homeland Security, Public Safety
Grant writers	Yes	Econ. Development.

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE			
What department is responsible for floodplain management in your jurisdiction?	Building Dept.		
Who is your jurisdiction's floodplain administrator? (department/position)	Building Commissioner by ordinance		
Are any certified floodplain managers on staff in your jurisdiction?	No		
What is the date of adoption of your flood damage prevention ordinance?	1985 1st Flood Plain Ord.		
When was the most recent Community Assistance Visit or Community Assistance Contact?	Mid 2013		
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No		
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes		
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No Our office has been providing Map Service to All Residents.		
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 Yes, we are interested in participating		

TABLE: COMMUNITY CLASSIFICATIONS				
	Participating?	Classification	Date Classified	
Community Rating System	yes	N/A	N/A	
Building Code Effectiveness Grading Schedule	Yes	Unknown	Unknown	
Public Protection/ISO	Yes	Unknown	Unknown	
StormReady	Yes	Blue	2002	

Tree City USA	No	N/A	N/A
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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: 74
- Number of FEMA-Identified Severe Repetitive Loss Properties: 2
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 7

TABLE: NATURAL HAZARD EVENTS				
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment	
Severe Weather	-	5/9/2018	-	
Severe Storms	DR-4116	2013	-	
Severe Winter Storms	DR-1960	2011	-	
Severe Weather/Flooding	DR-1935	2010	-	
Severe Weather/Flooding	DR-1800	2008	-	
Severe storm/Flooding	DR-1729	2007	-	
Severe Winter Storms	EM-3161	2000	-	
Winter Snow Storms	EM-3134	1999	-	
Flooding	DR-1188	1997	-	
Flooding	DR-1129	1996	-	
Severe Weather/Flooding	DR-997	1993	-	
Severe Weather/Flooding	DR-798	1987	-	
Severe Weather/Flooding	DR-776	1986	-	

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: Melrose Park continues to experience excessive urban/flash flooding, especially on Main Street

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	39				
4	Flood	36				
5	Earthquake	32				
6	Drought	4				
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)	
		propriate, sup sture structure		ing, purchase, o	or relocation o	f structures in hazard-	
Ongoing	All	7, 13	Village	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)	
Action M5.2-	—Continue t	o support the	countywide	actions identific	ed in this plan		
Ongoing	All	All	Village	Low	General Fund	Short- and long-term	
Action M5.3—Actively participate in the plan maintenance strategy identified in this plan							
Ongoing	All	3, 4, 6	DHSEM Village	Low	General Fund	Short-term	
Action M5.4—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	Low	General Fund	Completed	
Action M5.5—Maintain Good standing under the National Flood Insurance Program.							
Ongoing	Flooding	4, 6, 9	Village	Low	General Fund	Short-term and ongoing	
Action M5.6-events.	—Where fea	sible, implem	ent a progra	m to record high	n water marks	following high-water	
Ongoing	Flooding, Severe Weather	3, 6, 9	Village	Medium	General fund; FEMA Grant Funds (Public Assistance)	Long-term	
Action M5.7- dictate land u	_		igation plan	into other plans	s, programs, o	r resources that	
Ongoing	All	3, 4, 6, 10, 13	Village	Low	General Fund	Short-term	
Action M5.8-	—Implement	t the Addison	Creek Chanr	nel Improvemen	ts		
New	Flooding	2, 3, 9, 13	MWRD	\$43,400,000; High	MWRD	Short-term	
Action M5.9—Implement the Creek Flooding Abatement							
New	Flooding	2, 3, 9, 13	TBD	TBD	TBD	TBD	
	(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	2	High	High	Yes	Yes	No	Medium
2	13	Medium	Low	Yes	No	Yes	High
3	3	Medium	Low	Yes	Yes	Yes	High

4	9	Medium	Low	Yes	No	Yes	Medium
5	3	Medium	Low	Yes	No	Yes	High
6	3	Medium	Medium	Yes	Yes	No	Medium
7	5	Medium	Low	Yes	No	Yes	High
8	4	High	High	Yes	Yes	Unknown	High
9	4	Medium	Unknown	Unknown	Yes	Unknown	Medium

⁽a) See Chapter 1 for explanation of priorities.

New Mitigation Actions

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

Mitigation Action	Implement the Addison Creek Channel		
	Improvements		
Year Initiated	2019		
Applicable Jurisdiction	Village of Melrose Park		
Lead Agency/Organization	MWRD		
Supporting Agencies/Organizations	Village of Melrose Park		
Applicable Goal	 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 and potential damage from such activities. 		
Applicable Objective	 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. Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans. Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes. 		
Potential Funding Source	MWRD		
Estimated Cost	\$43,400,000		
Benefits (loss avoided)	TBD		
Projected Completion Date	TBD		
Priority and Level of Importance (Low, Medium, High)	High		
Benefit Analysis (Low, Medium, High)	High		
Cost Analysis (Low, Medium, High)	High		

Actual Completion Date	
riotaar compication pate	

Action/Implementation Plan and Project Description: ID: ADCR-6B Contract: 11-187-3F Watershed: Lower Des Plaines Location: Northlake, Melrose Park, Stone Park, Bellwood, Westchester, and Broadview, IL Improves channel conveyance through channel improvements from Northlake to Broadview that include open channel, solider piles wall, articulated concrete blocks, gabions, and channel clearing. Removal of 3 bridges along

Mitigation Action and Project Maintenance				
Year	Status	Comments		
2019		Executed intergovernmetnal agreements with all six villages. Final design. Right-of-way acquisition in progress.		
2020				
2021				
2022				
2023				

Harrison St. at 30th Ave., 31st Ave., and 32nd Ave.

	Mitigated Hazards				
	All Hazards				
	Dam/Levee Failure				
	Drought				
	Earthquake				
Х	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

Mitigation Action	Implement the Creek Flooding Abatement
Year Initiated	2019
Applicable Jurisdiction	Village of Melrose Park
Lead Agency/Organization	
Supporting Agencies/Organizations	Melrose Park Water Shed Comm.
Applicable Goal	 Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.
Applicable Objective	 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. Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans. 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	TBD
Benefits (loss avoided)	Reduce flooding
Projected Completion Date	TBD
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)	TBD
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description				
Action/Implementation Plan and Project Description:				

Mitigation Action and Project Maintenance

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

	Mitigated Hazards
	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
Х	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.

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description				
# M-5.1	Where appropriate support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage.				
Status Description: No	Under review	Х			
C = P	Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken				

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# M-5.2	Continue to support the countywide actions identified in this plan				
Status Description: No	Under review	Х			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# M-5.3 Actively participate maintenance strategy identified in this plan					
Status Description: No	Under review	Х			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)			
# M-5.5 Maintain Good standing under the National Flood Insurance Program.					
Status Description:	Status Description:				
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX					
Action Number Action Taken Y/N	Action Item Description				
# M-5.6	# M-5.6 Where feasible implement a program to record high water marks following high water events.				
Status Description: No	Under review	Х			
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken					

TABLE: ACTION PLAN MATRIX				
Action Number Action Taken Y/N	Action Item Description			
# M-5.7	Integrate the hazard mitigation plan into other plans, programs or resources that dictate land use or redevelopment.			
Status Description: No	Under review	Х		
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.

TABLE: ACTION PLAN MATRIX						
Action Number Action Taken Y/N	Action Item Description					
# M-5.4 Consider participation in incentive based programs such as the Community Rating System, Tree City and Storm Ready.						
Status Description:	Storm Ready completed. Community Rating System completed.					
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken						

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

MELROSE PARK EXISTING CONDITIONS				
2010 Population	25,411			
Total Assessed Value of Structures and Contents	\$8,390,132,925			
Area in 100-Year Floodplain	346.27 acres			
Area in 500-Year Floodplain	480.02 acres			
Number of Critical Facilities	76			

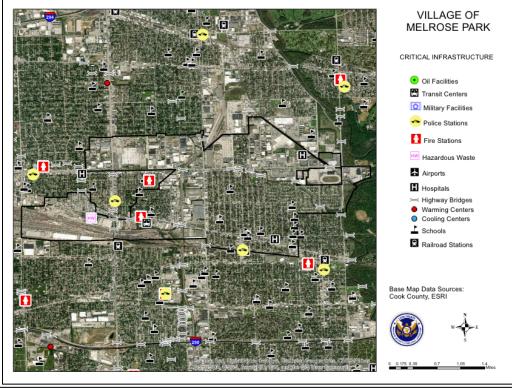
HAZARD EXPOSURE IN MELROSE PARK							
	Number	Exposed	Value Expose	Value Exposed to Hazard			
	Population	Buildings	Structure	Contents	Total	Value Exposed	
Dam Failure							
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%	
Touhy	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%	
Flood	Flood						
100-Year	2,243	690	\$478,758,426	\$445,868,239	\$924,626,665	11.02%	

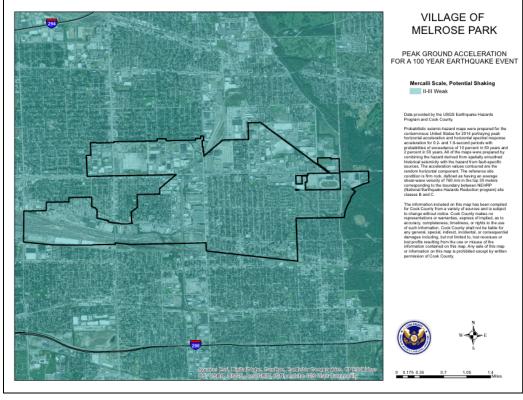
500-Year	3,156	971	\$616,667,430	\$566,067,976	\$1,182,735,406	14.10%
Tornado						
100-Year	_	_	\$1,332,654,187	1,337,980,321	\$2,670,634,507	31.83%
500-Year	_	_	\$1,371,499,065	\$1,052,688,390	\$2,424,187,455	28.89%

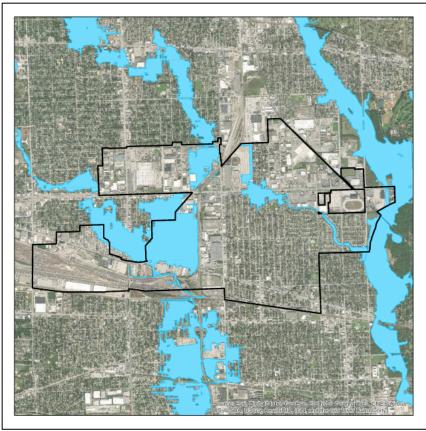
ESTIMATED PROPERTY DAMAGE VALUES IN MELROSE PARK						
	Estimated Damage Associated with Hazard			% of Total Assessed		
	Building	Contents	Total	Value Damaged		
Dam Failure						
Buffalo Creek	\$0	\$0	\$0	0.00%		
U. Salt Cr. #2	\$0	\$0	\$0	0.00%		
Touhy	\$0	\$0	\$0	0.00%		
U. Salt Cr. #3	\$0	\$0	\$0	0.00%		
U. Salt Cr. #4	\$0	\$0	\$0	0.00%		
Earthquake						
1909 Historical Event	\$46,674,377	\$14,901,484	\$61,575,861	0.73%		
Flood						
10-Year	\$11,884,996	\$8,564,102	\$20,449,098	0.24%		
100-Year	\$36,463,292	\$42,015,616	\$78,478,908	0.94%		
500-Year	\$67,829,098	\$101,592,551	\$169,421,649	2.02%		

Tornado						
100-Year	\$133,265,419	\$133,798,032	\$267,063,451	3.18%		
500-Year	200,238,863	\$153,692,505	\$353,931,368	4.22%		

Hazard Mapping







VILLAGE OF MELROSE 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.

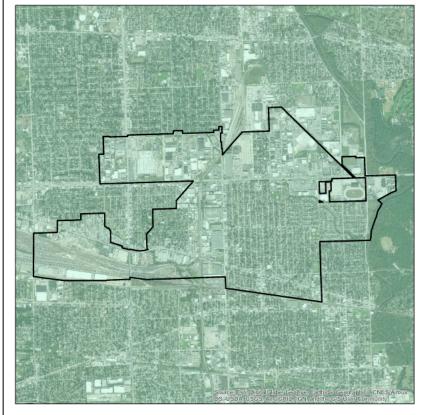
The information included on this map has been compiled for Cook County from a variety of sources and is subject to change without notice. Cook County makes no representations or warranties, express of implied, as to accuracy, completeness, timeliness, or rights to the use of such information. Cook County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of Cook County.

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









VILLAGE OF MELROSE PARK

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

high low

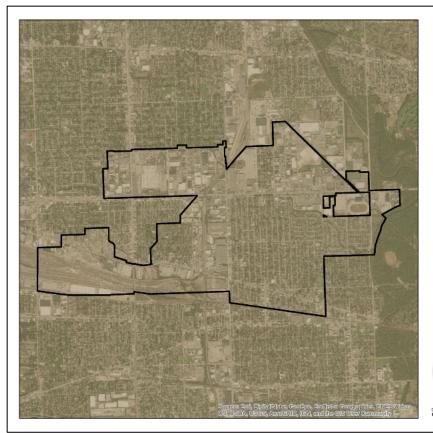
Data provided by the Illinois State Geological Survey and Cook County.

Disa provided by the throis state seespeal survey and Cook County.

The Central United States Earthquake Consortium (CUBEC) State Goologies produced a regional Soil State Class may DELFRED 2017 Pride Type May). a Class may DELFRED 2017 Pride Type May). a May be presented to the control of the County of the Co







VILLAGE OF MELROSE 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.

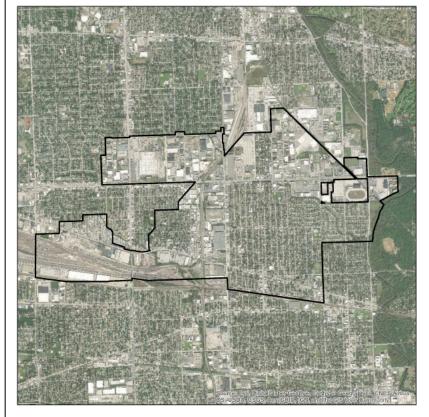
County Trends by the test as all existing as serving are Control United States Earthquake Consortium (CUSEC) States Coolings produced a regional Soil Site CUSEC) States Coolings produced a regional Soil Site CUSEC) States Coolings are consistent to the second to the State Sta

The information included on this map has been completed for for Cook County from a variety of sources and is subject to change without notice. Cook County makes no accuracy, completed management of the country of the cook county of the cook of sources, completed management of the cook of such information. Cook County shall not be liable for any spenser, special, infered, included, not consequential damages including, but not limited to, but revenues or loop profit in southly from the use or intraste of this country of the cou









VILLAGE OF MELROSE PARK

100- AND 500- YEAR TORNADO EVENTS

Magnitude

4 (100 year event) 5 (500 year event)

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





0 0.15 0.3 0.6 0.9 1.2