

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

Merrionette 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
Thomas Wendt, Fire Chief 3165 W 115th Street Merrionette Park, IL 60803 Telephone: 708-396-3180 Email Address: Thomas.wendt@merrionettepark.org	Troy Golem, Village Engineer 17000 South Park Avenue South Holland, IL 60473 Telephone: 815-412-2720 Email Address: tgolem@reltd.com

Jurisdiction Profile

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

- **Date of Incorporation:** 1947
- **Current Population:** 1,865 as of 2018 US Census population estimate.
- **Population Growth:** The population decreased 1.8 percent from 2010 to 2016.
- **Location and Description:** The Village of Merrionette Park is a suburb of Chicago located in Cook County 18.6 miles south of the Chicago Loop. Merrionette Park is a small residential, industrial, and commercial community boarded by the City of Chicago to the north and east, Oak Lawn to the northwest, Blue Island to the south, and Alsip to the west. Merrionette Park has a rail line, which is on the east boarder of the village, and is within 4 miles from IL tollways and Interstate Highways as well as a major shipping canal. This stretch of expressways and canal has a large volume of commercial traffic with hazardous materials of all types. In addition, Merrionette Park is home to a large medical complex and a pesticide company. Population surges can double and at times triple our residential population resulting from a large shopping complex and a nightclub that has become a premiere nightspot and concert location in the south western Chicago suburbs with occupancy exceeding 5,000 for some events. According to the 2010 census, the village has a total area of 0.38 square miles.
- **Brief History:** 1940-41 James Merrion built 125 Single family homes in unincorporated Cook County on property known as Van Latens Farm. The original Merrionette Park was bound by the Grand Truck railroad tracks on the east, and Troy and Kedzie on the west. The new residents formed a group called “The Merrionette Park Property Owners Assoc.”. In 1946 members of the association voted to name the village Merrionette Park. The village was officially incorporated on February 18, 1947. With Incorporation came annexation of the area. The new area covered from 115th Street to 119th street, from the Grand Truck Railroad to Central Park (on 119th St). In May, 1952, E.T. Mahoney developed the property from 115th Street to Parklane Drive. This “Southside” subdivision was known as “Mahoney Estates” and consisted of 339 single family homes. The 1960s saw new development on 118th Street. Stone Brook Plaza at 115th and Kedzie came in the 1970s, along with the much needed Water Tower. Following was the Stone Brook Mall and its anchor store, Dominick’s and Handy Andy. The extra income the Village received from these malls was used to replace street lights, repave streets and purchase very much needed emergency equipment plus a much deserved pay increase to all Village employees. The 1990s found the development of 33 new homes on Merrion Lane, the updated retention pond on Homan and the completion of the then Meyer Medical Pavilion and the closing of Handy Andy. In the Mid 2000s the village saw the development the 115 Bourbon Street night club in the vacant Handy Andy building, the construction of the Everett College building and redevelopment of the vacant firestone dealership into a medical dialysis center .
- **Climate:** Merrionette Park’s climate is typically continental that experiences 4 distinct seasons with cold winters, warm summers, and frequent short fluctuations in temperature, humidity, cloudiness, and wind direction. Many consider the more moderate temperatures of spring and fall to be the most pleasant. Lake Michigan provides a moderating influence on temperature while boosting the amount of rain and snowfall received in the city.

- **Governing Body Format:** The Village of Merrionette Park operates under a Village President form of Government. 6 Trustees, the Board President, Village Clerk, and a Treasurer make up the Village Board. This body of Government will assume the responsibility for the adoption and implementation of this plan. Merrionette Park operates 5 departments including the Clerk’s Office, Building Department, Fire Department, Police Department, and Public Works Department. Development Trends:
- **Development Trend:** Anticipated development trends are low. Over 90% of property in Merrionette Park is fully developed with residential, industrial, and commercial property. There is a low projected growth rate with no plans for annexing or rezoning.

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	Chapter 161-Adopted 1993, last amended 2005
Zonings	Yes	No	No	Yes	Chapter 159 - 1959, last amended 2001
Subdivisions	Yes	No	No	No	Chapter 156-1971, never amended
Stormwater Management	Yes	No	Yes	No	Chapter 152-1979, last amended 2000 and Chapter 50-1971, last amended 2013
Post Disaster Recovery	Yes	No	No	No	Chapter 92 – 1968, last amended 1992
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	Chapter 150 – 1992, last amended 2002 Chapter 151 – 1973, last amended 1999 Chapter 153 – 1975, never amended Chapter 154 – 1974, last amended 2001
Public Health and Safety	Yes	No	Yes	No	Cook County Board of Health. Chapter 93 – 1971, last amended 2000 and 94 – 1971, last amended 2001
Environmental Protection	No	No	No	No	
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	
Stormwater Plan	No	No	MWRD	No	
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	
Economic Development Plan	No	No	Yes	No	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	No	Cook County DHSEM
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	No	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	No	No	Cook County DPH

TABLE: FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	No
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	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

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	Consulting Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works/Consulting Engineering
Planners or engineers with an understanding of natural hazards	Yes	Consulting Engineering
Staff with training in benefit/cost analysis	Yes	Finance
Surveyors	Yes	Consulting Services
Personnel skilled or trained in GIS applications	Yes	Consulting Engineering
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Cook County DHSEM
Grant writers	Yes	Consulting Services

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

What department is responsible for floodplain management in your jurisdiction?	Public Works/Building Commissioner
Who is your jurisdiction’s floodplain administrator? (department/position)	Building Commissioner
Are any certified floodplain managers on staff in your jurisdiction?	Consulting Engineering
What is the date of adoption of your flood damage prevention ordinance?	11/16/79
When was the most recent Community Assistance Visit or Community Assistance Contact?	Have not received a Community Assistance Visit

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, Local flooding caused by undersized sewers
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, Technical training and equipment
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?	Yes

TABLE: COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	Unknown
Public Protection/ISO	Yes	ISO 4	2010
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	No		

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 (if applicable)	Date	Preliminary Damage Assessment
Severe Weather	DR-4116	2013	-
Severe Winter Storms	DR-1960	2011	-
Severe Storms/Flooding	DR-1953	2010	-
Severe Storms/Flooding	DR-1800	2008	-
Severe Storms/Flooding	DR-1729	2007	-
Severe Winter Storm	EM-3161	2000	-
Winter Snow Storm	EM-3134	1999	-
Flooding	DR-1188	1997	-
Flooding	DR-1129	1996	-
Severe Storms/Flooding	DR-997	1993	-
Severe Storms/Flooding	DR-798	1987	-
Severe Storms/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.

Flood: Flooding is possible throughout the Village, especially Sacramento Dr. on the left side of the street.

Extreme Heat: The Village would benefit from providing Cooling Centers, food, and water during an extreme heat event.

Lightning: The Village is vulnerable to possible fires and building damage from lightning.

Hail: The Village is vulnerable to glass breaking as a result of hail.

Fog: The community is susceptible to bodily harm and property damage caused by fog-related car accidents.

High Winds: The Village is vulnerable to damaged power lines and building damage during high wind events.

Snow: In the event of heavy snow, the Village is vulnerable to delayed operations. In addition, some residents, such as seniors may require help

Extreme Cold: Currently, the Village is vulnerable to extreme cold because there are residents without heat and the Village does not have a warming center.

Ice Storms: Ice storms expose the residents of the Village to potential car accidents and delayed emergency services.

Severe Weather/Winter Weather: Numerous trees, tree limbs and power lines were blown down across far southern parts of the City of Chicago. The Beverly Hills/Morgan Park area had extensive tree damage including damage to houses and cars.

Drought: The Village water main, valve, and fire hydrant are in need of replacement along Meadow Lane which is prone to breaks. Can lead to water loss.

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	Tornado	54
2	Severe Weather	54
3	Flood	54
4	Severe Winter Weather	51
5	Earthquake	36
6	Drought	7
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 M6.1 —Water main, valve, and fire hydrant replacement along 118th Street which is prone to breaks						
Completed	All	2, 7	PW	\$420,000; Medium	IEPA Low Interest Loan	Completed
Action M6.2 —Construct a Salt Storage Facility.						
Ongoing	Severe Winter Weather	2, 7	PW	\$300,000; Medium	Community Development Loan	Short-term
Action M6.3 —Storm sewer replacement/upsizing on 115th Street which, is prone to flooding.						
Ongoing	Flood	7, 9	PW, MWRD	\$250,000; High	Bond, General revenue, MWRD-Phase II	Long-term Depending upon Funding
Action M6.4 —Retrofit Water Supply Systems to prevent water loss.						

Ongoing	Drought, Severe Weather, Tornado, Earthquake	2, 7	PW	Medium	Village	Long-Term
Action M6.5 —Adopt MWRD Watershed Management Ordinance						
Ongoing	Flood, Server Weather	3, 9, 10	Village Board	Low	General revenue	Short-term ongoing
Action M6.6 —Install/Upgrade Generators at water plant and lift stations						
Ongoing	Flood, Drought, Severe Weather	2, 7	PW	Medium	General revenue, Bonds, FEMAGrants	Long-term
Action M6.7 —Expand/Improve Public Works Facility						
Ongoing	All Hazards	2, 7	BD,PW	Med	General Revenue, Bonds	Long-term
Action M6.8 —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	Village	High	FEMA Hazard Mitigation Grants	Long-term (depending on Funding)
Action M6.9 —Continue to support the countywide actions identified in this plan.						
Ongoing	All	All	Village	Low	General Fund	Short-term and Long-term
Action M6.10 —Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	DHSEM, Village	Low	General Fund	Short-term
Action M6.11 —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	Village	Low	General Fund	Long-term
Action M6.12 —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	Low	General Fund	Short-term and ongoing
Action M6.13 —Where feasible, implement a program to record high water marks following high-water events.						
Ongoing	Flooding, Severe Weather	3, 6, 9	Village	Medium	General Fund, FEMA Grant Funds (public Assistance)	Long Term
Action M6.14 —Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village’s regulatory, financial and technical capability to implement mitigation actions.						
Ongoing	All	1, 2, 7	Public Works	High	CIP components of general fund (if implemented)	Long-term
Action M6.15 —Water main, valve, and fire hydrant replacement along 118th Street which is prone to breaks						
Ongoing	Drought, Earthquake, Flood, Extreme Cold, Ice Storms	2, 7, 12, 13	TBD	TBD	TBD	Short-term
Action M6.16 —Water main, valve, and fire hydrant replacement along Meadow Lane which is prone to breaks						
New	Drought, Earthquake, Flood, Extreme Cold, Ice Storms	2, 7, 12, 13	TBD	\$900,000; High	IEPA Low-Interest Loan	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	Benefits	Costs	Do Benefits Equal	Is Project	Can Project Be Funded Under	Priority (a)

	Objectives Met			or Exceed Costs?	Grant-Eligible?	Existing Programs/Budgets?	
1	2	High	Medium	Yes	Yes	Yes	High
2	2	High	Medium	Yes	Yes	Yes	High
3	2	High	Medium	Yes	Yes	No	High
4	2	High	Medium	Yes	Yes	No	Medium
5	3	High	Low	Yes	No	Yes	Medium
6	2	High	Medium	Yes	Yes	No	Medium
7	2	High	Medium	Yes	Yes	No	Medium
8	2	High	High	Yes	Yes	No	Medium
9	13	Medium	Low	Yes	No	Yes	High
10	3	Medium	Low	Yes	Yes	Yes	High
11	9	Medium	Low	Yes	No	Yes	Medium
12	2	High	High	Yes	Yes	No	Medium
13	3	Medium	Medium	Yes	Yes	No	Medium
14	3	High	High	Yes	No	No	Medium
15	4	TBD	TBD	TBD	Yes	TBD	TBD
16	4	Medium	High	No	Yes	TBD	Medium

(a) See Chapter 1 for explanation of priorities.

New Mitigation Actions

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

Action M6.16

Mitigation Action	Water main, valve, and fire hydrant replacement along Meadow Lane which is prone to breaks
Year Initiated	2019
Applicable Jurisdiction	Merrionette Park
Lead Agency/Organization	
Supporting Agencies/Organizations	
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.
Applicable Objective	<p>Increase the resilience of (or protect and maintain) infrastructure and critical facilities. Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetitively damaged.</p> <p>Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.</p> <p>Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</p>
Potential Funding Source	IEPA Low Interest Loan
Estimated Cost	\$900,000
Benefits (loss avoided)	Water loss, property damage avoided, street repairs avoided
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)	High—Existing funding will not cover the cost of the project; implementation would require new

	revenue through an alternative source (for example, bonds, grants, and fee increases).
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Water main, valve, and fire hydrant replacement along Meadow Lane which is prone to breaks

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

Mitigated Hazards	
	All Hazards
	Dam/Levee Failure
X	Drought
X	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
X	Extreme Cold
X	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 M6.2

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.2	Construct a Salt Storage Facility	
Status Description: No	No funding	X
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action M6.3

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.3	Storm sewer replacement/upsizing on 115th Street which is prone to flooding	
Status Description: No	No funding	X
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action M6.4

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.4	Retrofit Water Supply Systems to prevent water loss	
Status Description: No	No funding	X
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action M6.5

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.5	Adopt MWRD Watershed Management Ordinance	
Status Description: No	Wasn't needed	X
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action M6.6

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.6	Install/Upgrade Generators at water plant and lift stations	
Status Description: No	No funding	X
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action M6.7

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.7	Expand/Improve Public Works Facility	
Status Description: No	No funding	X
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action M6.8

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.8	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: No	No funding	X
<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 M6.9

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.9	Continue to support the county wide actions identified in this plan.	
Status Description: Yes		O
<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 M6.10

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.10	Actively participate in the plan maintenance strategy identified in this plan.	
Status Description: Yes		O
<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 M6.11

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.11	Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.	
Status Description: No	No funding	X
<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 M6.12

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.12	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: No	Programs not needed at this time	X
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action M6.13

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.13	Where feasible, implement a program to record high water marks following high-water events.	
Status Description: No	Programs not needed at this time	X
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action M6.14

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.14	Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village’s regulatory, financial and technical capability to implement mitigation actions.	
Status Description: No	No funding	X
<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 M6.15

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
#M6.15	Water main, valve, and fire hydrant replacement along 118th Street which is prone to breaks	
Status Description: Action Taken?	Future Project	O
<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>		

Completed Mitigation Actions

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

Action M6.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# M6.1	Water main, valve, and fire hydrant replacement along 118th Street which is prone to breaks	
Status Description: Yes	Water main, valve, and fire hydrant replacement project on 118th Street has been completed. Can be removed from the plan.	C
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

MERRIONETTE PARK EXISTING CONDITIONS	
2010 Population	1,900
Total Assessed Value of Structures and Contents	\$343,359,596
Area in 100-Year Floodplain	12.50 acres
Area in 500-Year Floodplain	12.50 acres
Number of Critical Facilities	4

HAZARD EXPOSURE IN MERRIONETTE 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	26	8	\$4,739,434	\$5,609,717	\$10,349,151	3.01%

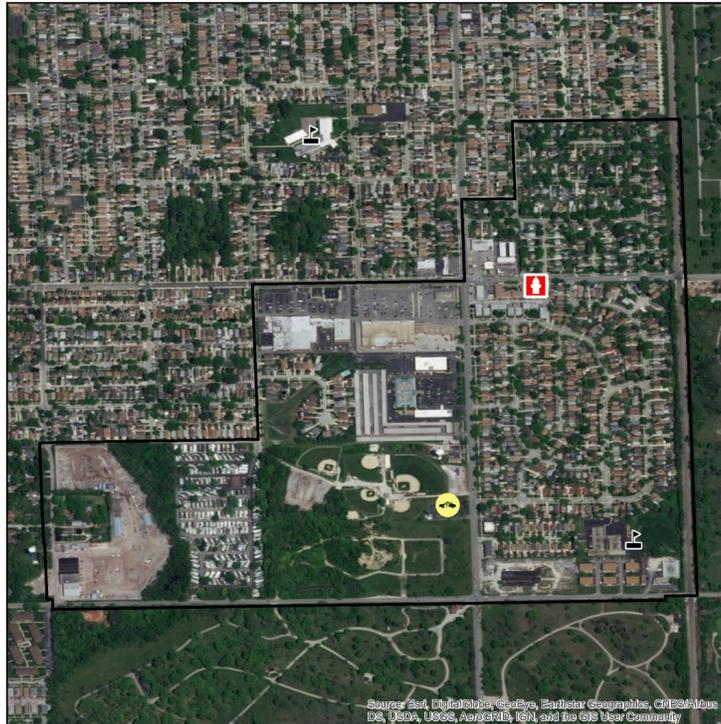
500-Year	26	8	\$4,739,434	\$5,609,717	\$10,349,151	3.01%
Tornado						
100-Year	—	—	\$135,764,088	\$107,889,378	\$243,653,467	70.96%
500-Year	—	—	\$181,416,347	\$133,078,953	\$314,495,300	91.59%

ESTIMATED PROPERTY DAMAGE VALUES IN MERRIONETTE 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	\$987,885	\$247,229	\$1,235,115	0.36%
Flood				
10-Year	\$0	\$0	\$0	0.00%
100-Year	\$54,278	\$18,517	\$72,795	0.02%
500-Year	\$54,278	\$18,517	\$72,795	0.02%

Tornado				
100-Year	\$13,576,409	\$10,788,938	\$24,365,347	7.10%
500-Year	\$26,486,787	\$19,429,527	\$45,916,314	13.37%

Hazard Mapping



VILLAGE OF MERRIONETTE PARK

CRITICAL INFRASTRUCTURE

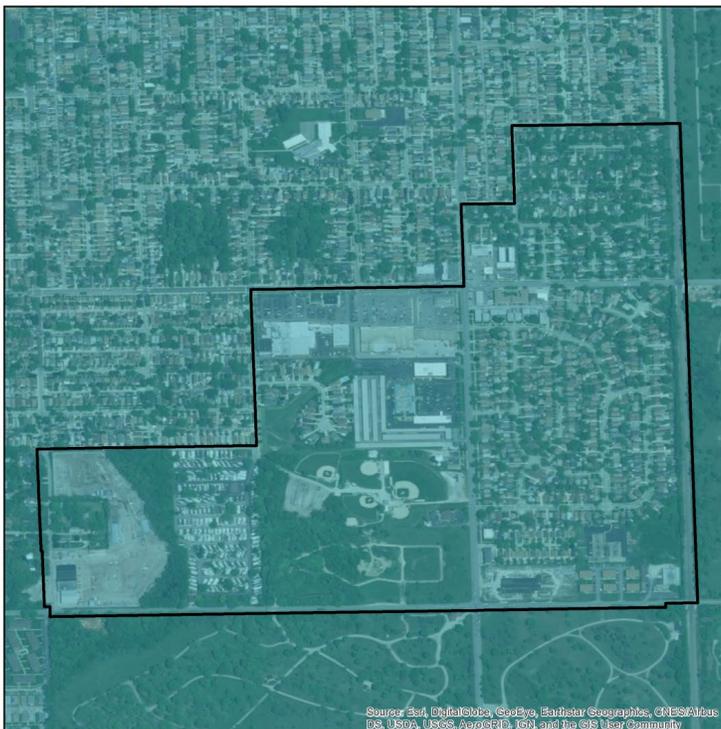
- Oil Facilities
- Transit Centers
- Military Facilities
- Police Stations
- Fire Stations
- Hazardous Waste
- Airports
- Hospitals
- Highway Bridges
- Warming Centers
- Cooling Centers
- Schools
- Railroad Stations

Base Map Data Sources:
Cook County, ESRI



0 0.04 0.08 0.16 0.24 0.32 Miles

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



VILLAGE OF MERRIONETTE 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

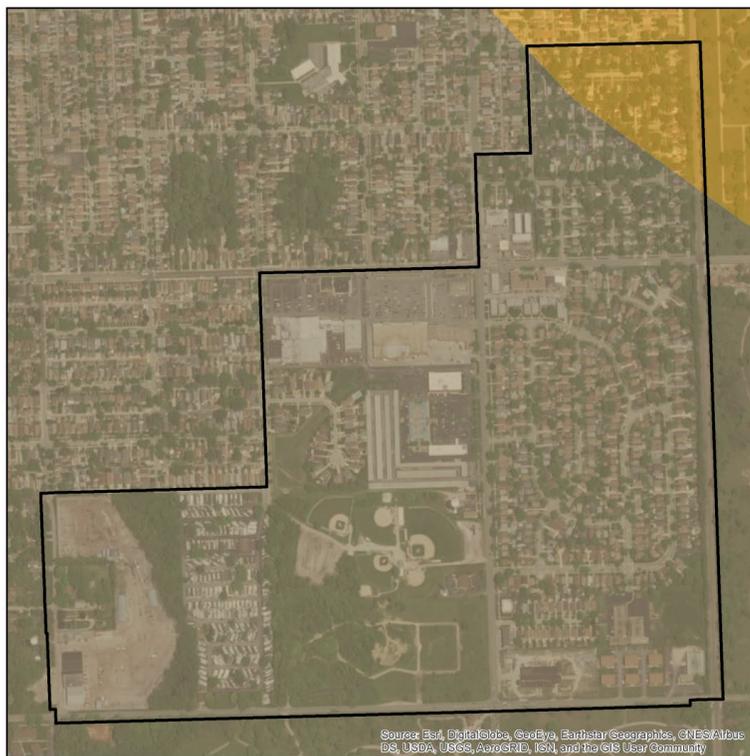
Probabilistic seismic-hazard maps were prepared for the conterminous United States for 2014 portraying peak horizontal acceleration and horizontal spectral response acceleration for 0.2- and 1.0-second periods with probabilities of exceedance of 10 percent in 50 years and 2 percent in 50 years. All of 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 Hazards Reduction Program) site classes B and C.

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0 0.04 0.08 0.16 0.24 0.32 Miles

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VILLAGE OF MERRIONETTE 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 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 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 N. Pennell (2002) 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, 2002) 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 MERRIONETTE PARK

COOK COUNTY MWRDGC 100-YEAR INUNDATION AREA

- 100-year Inundation Area

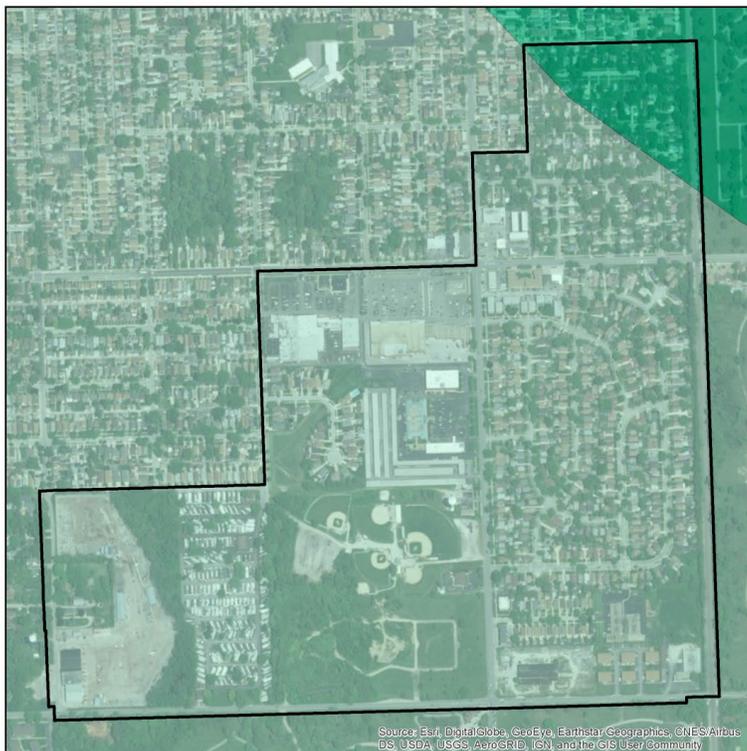
MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

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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 MERRIONETTE PARK

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

- high
- low
- very low

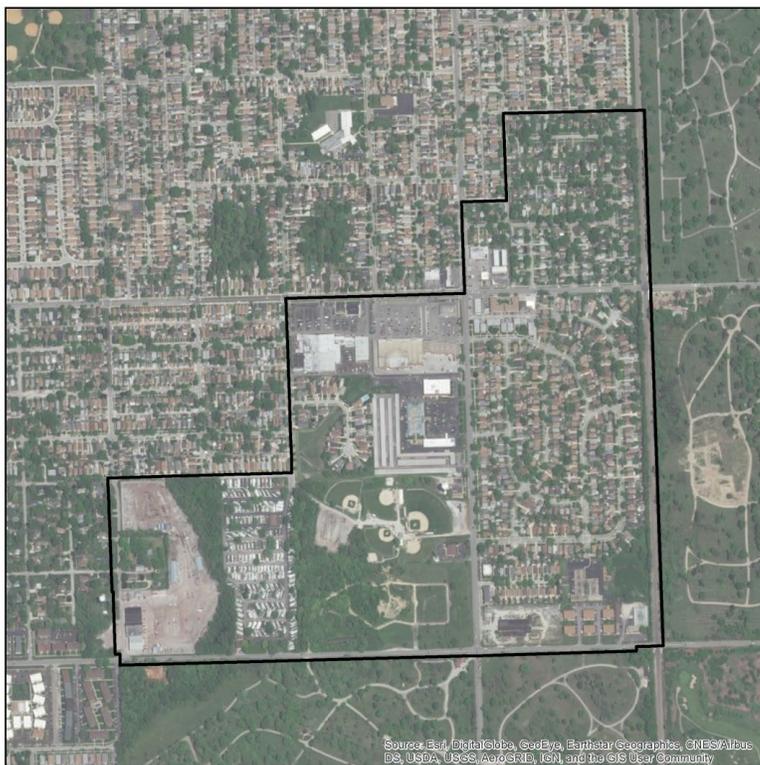
Data provided by the Illinois State Geological Survey and Cook County.

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VILLAGE OF MERRIONETTE 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.



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