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

## Oak 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
Gaurav Gaonkar	John Wielebnicki
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Oak Park, IL. 60302	Oak Park, IL. 60302
Telephone: 708-358-5489	Telephone: 708-358-5700
Email Address:	Email Address:
ggaonkar@oak-park.us	jwielebnicki@oak-park.us

## Jurisdiction Profile

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

- Date of Incorporation: January 25, 1902
- **Current Population:** 52,265 as of the 2018 US Census Estimate.
- **Population Growth:** It is expected the population of Oak Park will remain steady if not experience minimal growth, which was seen from 2010 to 2017 with an increase of less than 1 percent.
- Location and Description: The Village of Oak Park occupies 4.5 square miles on the western border of Chicago, approximately 9 miles from Lake Michigan. It is the 29th largest community in Illinois by population. The Village has easy access to Chicago via the Interstate 90, the Blue and Green L lines, Metra and public transportation.
- Brief History: In 1837, Joseph Kettlestrings purchased 172 acres (70 ha) of land just west of Chicago. By 1850, the Galena and Chicago Union Railroad was constructed as far as Elgin, Illinois, and passed through what would later become Oak Park. In the 1850s the land on which Oak Park sits was part of the new Chicago suburb of Cicero. The population of the area boomed during the 1870s, with Chicago residents resettling in Cicero following the Great Chicago Fire of 1871.

The Village of Oak Park was formally established in 1902, disengaging from Cicero following a referendum.

Oak Park has a history of alcohol prohibition. When the village was incorporated, no alcohol was allowed to be sold within its village limits. This law was relaxed in 1973, when restaurants and hotels were allowed to serve alcohol, and was further loosened in 2002, when select grocery stores received governmental permission to sell packaged liquor.

Oak Park attracts architecture buffs and others to view the many Frank Lloyd Wright designed homes found in the village. The largest collection of Wright-designed residential properties in the world is in Oak Park. Other attractions include Ernest Hemingway's birthplace home and his boyhood home, the Ernest Hemingway Museum, the three Oak Park homes of Tarzan creator Edgar Rice Burroughs, Wright's Unity Temple, Pleasant Home, the Oak Park-River Forest Historical Society, and the Seward Gunderson Historic District.

Oak Park is home to Oak Park and River Forest High School, which is also the public high school for the bordering village of River Forest. A comprehensive college preparatory school, Oak Park-River Forest High School has a long history of turning out alumni who have made major or notable contributions to their field of endeavor. Among these are Pulitzer Prizewinning author Ernest Hemingway, football Hall-of-Famer George Trafton, McDonald's founder Ray Kroc, city planner Walter Burley Griffin, comedian Kathy Griffin, basketball player Iman Shumpert, and the voice of iconic cartoon character Homer Simpson, Dan Castellaneta.

- **Climate:** A humid continental climate is a climatic region typified by large seasonal temperature differences, with warm to hot (and often humid) summers and cold (sometimes severely cold) winters and is commonly found throughout the American Midwest.
- Governing Body Format: The village government includes an elected president and an elected village board which hires a village manager to conduct the day-to-day affairs of the administration. Oak Park also has five additional governments which levy real estate taxes. These include the Oak Park Township, the high school district (which also levies from adjacent River Forest), the elementary school district, the library district, and the park district.
- Developmental Trends: New projects are under development throughout the community.
   Currently there are multiple apartment buildings under development, a couple condo and townhome developments, and addition to the ER facility at Rush Oak Park Hospital, and some other retail and office developments.

## 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 8	k Requiremen	ts			
Building Code	Yes	No	No	Yes	OPVC Chapter 7-3, adopted 4/1/2004
Zonings	Yes	No	No	No	7-3- 12/5/2013
Subdivisions	Yes	No	No	No	OPVC Chapter 23-1, adopted 2/3/2014
Stormwater Management	Yes	No	No	No	2-7
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	Yes	No	No	Yes	OPVC Chapter 2-25- 4, adopted 2/3/2014
Growth Management	Yes	No	No	No	Comprehensive Plan
Site Plan Review	Yes	No	No	No	OPVC Chapter 23-1, adopted 2/3/2014
Public Health and Safety	Yes	No	No	No	OPVC Chapter 2-11, adopted 2/3/2013
Environmental Protection	No	No	No	No	
Planning Documents					

General or Comprehensive Plan	Yes	No	No	No	The Village of Oak Park works to maintain the character of the community by managing change through the Comprehensive Plan and business district plan recommendations. Adopted 9/4/1990
Is	the plan equi	pped to provide	linkage to this miti	igation plan?	Yes, plan includes housing and economic development elements.
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	No	No	MWRD Detailed Watershed Plan
Capital Improvement Plan	Yes	No	No	No	The Public Works Department plans and executes a variety of capital improvement projects each year
	Water. Transportation, Drainage				
		How ofte	en is the plan revis	ed/updated?	Annually
Habitat Conservation Plan	Yes	No	No	No	PlanItGreen
Economic Development Plan	Yes	No	No	No	Comprehensive Plan include economic development component
Shoreline Management Plan	No	No	No	No	

Community Wildfire Protection Plan	No	No	No	No	
Response/Recovery	Planning				
Comprehensive Emergency Management Plan	Yes	Yes	Yes	No	
Threat and Hazard Identification and Risk Assessment	No	Yes	Yes	No	
Terrorism Plan	Yes	Yes	Yes	No	
Post-Disaster Recovery Plan	No	Yes	Yes	No	
Continuity of Operations Plan	No	Yes	Yes	No	
Public Health Plans	Yes	Yes	Yes	No	

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	Department/Agency/Position			
Planners or engineers with knowledge of land development and land management practices	Yes	Public Works/Oak Park/Director		
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works/Oak Park/Village Engineer		
Planners or engineers with an understanding of natural hazards	Yes	Public Works/Oak Park/Village Engineer		
Staff with training in benefit/cost analysis	Yes	Public Works/Oak Park		
Surveyors	Yes	Cook County		
Personnel skilled or trained in GIS applications	Yes	Public Works/Oak Park/Traffic Safety		
Scientist familiar with natural hazards in local area	Yes	IEMA		
Emergency manager	Yes	Police/Oak Park/Emergency Preparedness and Response Manager		
Grant writers	Yes	Finance		

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE				
What department is responsible for floodplain management in your jurisdiction?	N/A			
Who is your jurisdiction's floodplain administrator? (department/position)	N/A			
Are any certified floodplain managers on staff in your jurisdiction?	N/A			
What is the date of adoption of your flood damage prevention ordinance?	N/A			
When was the most recent Community Assistance Visit or Community Assistance Contact?	N/A			
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	N/A			
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	N/A			
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?	N/A			

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?	N/A
Note: The Village of Oak Park is currently not participating in the NFIP	

TABLE: COMMUNITY CLASSIFICATIONS				
	Participating?	Classification	Date Classified	
Community Rating System	No	N/A	N/A	
Building Code Effectiveness Grading Schedule	Yes	9/9	03/28/2012	
Public Protection/ISO	Yes	2		
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: None
- Number of FEMA-Identified Severe Repetitive Loss Properties: None
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: None

TABLE: NATURAL HAZARD EVENTS				
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment	
Illinois Severe Storms, Straight-Line Winds and Flooding	DR-4116	2013	-	
Illinois Severe Winter Storm and Snowstorm	DR-1960	2011	-	
Illinois Severe Storms and Flooding	DR-1935	2010	-	
Illinois Severe Storms and Flooding	DR-1800	2008	-	
Illinois Severe Storms and Flooding	DR-1729	2007	-	
Illinois Flooding	DR-1188	1997	-	
Illinois Flooding	DR-1129	1996	-	
Illinois Flooding, Severe Storms	DR-997	1993	-	
Illinois Severe Storms and Flooding	DR-798	1987	-	
Illinois Severe Storms and Flooding	DR-776	1986	-	
Illinois Severe Storms, Tornadoes, Flooding	DR-643	1981	-	

Illinois Severe Storms, Tornadoes, Flooding	DR-509	1976	-
Illinois Severe Storms and Flooding	DR-373	1973	-
Illinois Severe Storms and Flooding	DR-351	1972	-
Illinois Tornadoes	DR-227	1967	-

#### 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:* The Village has experienced flooding from heavy rains. In particular, the northeast part of town is most susceptible. Previously, this natural hazard has caused basement flooding and street closures throughout the Village. In 2012, heavy rain fell across portions of the Chicago Metropolitan area causing rapid filling of underpasses, ramps, and numerous viaducts. Some of the rainfall reports across the area include 4.53 inches in North Riverside.

**Extreme Heat:** As a result of the Village's many high-rise buildings and nursing homes, the citizens of Oak Park are particularly vulnerable to extreme heat.

**Lightning:** Many high-rises, cell towers. Similar to the risks posed by extreme heat events, the Village's many high-rise buildings and cell towers render the community particularly vulnerable to the impacts of lightning.

*High Winds:* Since the Village of Oak Park has over 20,000 parkway trees, downed trees could cause a total blockage of streets. In 2008, as many as 50 large tree limbs were blown down along with power lines in Oak Park. A couple entire trees were also blown down. In 2010, several tree limbs and power lines were blown down during a thunderstorm with high winds.

**Snow:** Major thoroughfares (Harlem, Roosevelt, North Ave., Austin, I-290) in the Village are vulnerable to severe snow events. Moreover, parking congestion on the streets prevents adequate snow removal.

*Blizzards:* Major thoroughfares (Harlem, Roosevelt, North Ave., Austin, I-290) in the Village are vulnerable to blizzards. Moreover, parking congestion on the streets prevents adequate snow removal. In 2007, heavy snow fell across northern Illinois on February 13th with some areas receiving over one foot of snow. In addition, wind gusts were frequently blowing at or above 35 mph, creating blizzard and whiteout conditions across many areas. Oak Park measured 9.8 inches. In 2014, heavy snow fell during the morning and afternoon of February 17th dropping 6 to 9 inches of snow across portions of east central and northeast Illinois. Some of the high snow reports include 8.1 inches near Oak Park.

**Extreme Cold:** Previously, the community has experienced frozen fire sprinkler lines. In addition to this impact, the Village's many senior-living facilities make the area particularly vulnerable to extreme cold.

*Ice Storms:* Major thoroughfares (Harlem, Roosevelt, North Ave., Austin, I-290) in the Village are vulnerable to ice storms. Moreover, parking congestion on the streets prevents adequate snow removal.

**Tornado:** Because the Village has 20,000 parkway trees, RxR/CTA/Metra, and over 50,000 residents, the community is particularly vulnerable to the impacts of tornadoes.

**Drought:** While no drought has occurred, preserving the natural landscape is essential to groundwater maintenance and beneficial in flood reduction.

# 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	54					
2	Severe Winter Weather	54					
3	Earthquake	32					
4	Tornado	27					
5	Flood	16					
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: HAZARD MITIGATION ACTION PLAN MATRIX						
Status	Hazards Mitigated	Objectiv es Met	Lead Agenci es	Estimat ed Cost	Sources of Funding	Timeline/Projec ted Completion Date (a)	Include d in Previo us Plan?
Action O4	.1—Identify combin	ed sewer s	ystem de	fects throu	gh video inspec	tion.	
Ongoing	Flooding, Severe Weather	6, 9, 13	Village	\$190,00 0; Low	Grants/Gen Rev	Ongoing	Yes
Action O4	Action O4.2—Conduct sewer main repairs						
Ongoing	Flooding, Severe Weather	2, 9, 13	Village	High	Grants/Gen Rev	Long-term Depending upon Funding	Yes
Action O4	.3—Identify sewer c	apacity cor	ntraints				
Ongoing	Flooding, Severe Weather	2, 9, 13	Village	\$55,000; Low	Grants/Gen Rev	Ongoing	Yes
Action O4	Action O4.4—Education program to encourage downspout disconnection						
Ongoing	Flooding, Severe Weather	6, 8, 9, 13	Village	\$60,000; Low	Grants/Gen Rev	Ongoing	Yes

Action O4	.5—Implement educ	cation prog	ram that	promotes	native landscap	es	
Ongoing	Flooding, Severe Weather, Drought	3, 4, 6, 13	Village	\$10,000; Low	Grants/Gen Rev	Short-term	Yes
Action O4 preventer	<b>.6</b> —Adopt financial s	assistance	programs	encouragi	ng homeowners	s to install sewer ba	ackflow
Ongoing	Flooding, Severe Weather	6, 7, 9, 10	Village	\$57,000; Medium	Grants/Gen Rev	Ongoing	Yes
Action O4	.7—Implement tree	planting pr	rogram				
Ongoing	Flooding, Severe Weather	3, 4, 10, 13	Village	\$50,000; Medium	Grants/Gen Rev	Short-term	No
Action O4	.8—Update the Villa	ge Compre	hensive f	Plan			
Complet ed	All	1, 3, 4, 6, 10	Plannin g	Medium	Grants/Gen Rev	Completed	No
Action O4	.9—Consider partici	pation in th	ne NFIP				
Remove d	Flooding	4, 6, 9	Village of Oak Park	Low	General Fund	Removed	No
Action O4	.10—Identify reloca	tion of stru	ctures in	hazard-pro	one areas		
Remove d	All	7, 13	Village of Oak Park	High	High FEMA Hazard Mitigation	Removed	No
Action O4	.11—Support the co	unty plan					
Ongoing	All	All	Village of Oak Park	Low	General Fund	Short- and long- term	No
Action O4	.12—Actively partici	pates in th	e plan ma	aintenance			
Ongoing	All	3, 4, 6	Village of Oak Park	Low	General Fund	Short-term	No
Action O4	.13—Update of the	Village Eme	ergency C	perations	Plan.		
Complet ed						Completed	
	.14—Install overhea ible in improving/en				ew doors will op	perate more quickly	and be

New	Tornado, Epidemi c or Pandemic, Hazard ous Materials Incident	12	Public Works/ Public Health	\$75,000; Low	Capital/Bondi ng	08/31/19	
Action O4 Garden	Action O4.15—Implement Green Alley Improvements and Public Works Facility Demonstration Rain Garden						
New	Flood	13	MWRD	Unknow n	Unknown	Unknown	

<sup>(</sup>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	Medium	High	Yes	Yes	No	Medium
2	3	Medium	Medium	Yes	Yes	No	Medium
3	3	High	High	Yes	Yes	No	Medium
4	4	Medium	Low	Yes	Yes	Yes	High
5	4	Medium	Low	Yes	Yes	Yes	High
6	4	High	Low	Yes	Yes	Yes	High
7	4	High	Medium	Yes	Yes	No	High
8	5	Medium	Medium	Yes	No	No	Medium
9	3	Medium	Low	Yes	No	Yes	Medium
10	2	High	High	Yes	Yes	No	Medium
11	13	Medium	Low	Yes	No	Yes	High
12	3	Low	Low	Yes	Yes	Yes	High
13							
14	1	Medium	Low	Yes	Unknown	Unknown	High
15	1	Unknown	Unknown	Yes	Unknown	Unknown	Unknown
(a) See Ch	napter 1 for e	explanation	of prioritie	S			

# **New Mitigation Actions**

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

reliable in improving/ensuring response time.  Year Initiated  Applicable Jurisdiction  Dak Park  Lead Agency/Organization  Public Works/ Public Health  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. Promote public understanding of and support for hazard mitigation.  Applicable Objective  Promote public understanding of and support for hazard mitigation.  Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.  Potential Funding Source  Capital/Bonding  Estimated Cost  S75,000  Benefits (loss avoided)  N/A  Projected Completion Date  Priority and Level of Importance (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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.		Install overhead doors at all 3 fire stations. New
Year Initiated         2019           Applicable Jurisdiction         Oak Park           Lead Agency/Organizations         Public Works/ Public Health           Supporting Agencies/Organizations	Mitigation Action	doors will operate more quickly and be more
Applicable Jurisdiction  Lead Agency/Organization  Supporting Agencies/Organizations  Public Works/ Public Health  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. Promote public understanding of and support for hazard mitigation.  Applicable Objective  Poetential Funding Source  Estimated Cost  Projected Completion Date  Projected Completion Date  Priority and Level of Importance (Low, Medium, High)  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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.		reliable in improving/ensuring response time.
Lead Agency/Organization  Supporting Agencies/Organizations  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. Promote public understanding of and support for hazard mitigation.  Applicable Objective  Promote public understanding of and support for hazard mitigation.  Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.  Potential Funding Source  Capital/Bonding  Estimated Cost S75,000  N/A  Projected Completion Date Priority and Level of Importance (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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Year Initiated	2019
Supporting Agencies/Organizations  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. Promote public understanding of and support for hazard mitigation.  Applicable Objective  Promote public understanding of and support for hazard mitigation. Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.  Potential Funding Source Capital/Bonding Estimated Cost S75,000 Benefits (loss avoided) N/A  Projected Completion Date 08/31/19  Priority and Level of Importance (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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Applicable Jurisdiction	Oak Park
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.     Promote public understanding of and support for hazard mitigation.  Applicable Objective     Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.  Potential Funding Source     Capital/Bonding  Estimated Cost     S75,000  Benefits (loss avoided)     N/A  Projected Completion Date     O8/31/19  Priority and Level of Importance (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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Lead Agency/Organization	Public Works/ Public Health
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. Promote public understanding of and support for hazard mitigation.  Applicable Objective Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.  Potential Funding Source Capital/Bonding Estimated Cost S75,000 Benefits (loss avoided) N/A Projected Completion Date Reduce of Importance (Low, Medium, High) High Priority High Priority  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.  Low-The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Supporting Agencies/Organizations	
Applicable Objective  vulnerability to potentially isolated populations within the planning area.  Potential Funding Source  Capital/Bonding  Estimated Cost  \$75,000  Benefits (loss avoided)  N/A  Projected Completion Date  Priority and Level of Importance (Low, Medium, High)  High Priority  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.	Applicable Goal	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.  • Promote public understanding of and
Estimated Cost \$75,000  Benefits (loss avoided) N/A  Projected Completion Date 08/31/19  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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Applicable Objective	vulnerability to potentially isolated
Benefits (loss avoided)       N/A         Projected Completion Date       08/31/19         Priority and Level of Importance (Low, Medium, High)       High Priority         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.	Potential Funding Source	Capital/Bonding
Projected Completion Date  Priority and Level of Importance (Low, Medium, High)  High Priority  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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Estimated Cost	\$75,000
Priority and Level of Importance (Low, Medium, High)  High Priority  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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Benefits (loss avoided)	N/A
High Priority  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.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.	Projected Completion Date	08/31/19
on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.  Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.		High Priority
Cost Analysis (Low, Medium, High)  existing budget. The project is part of or can be part of an ongoing existing program.	Benefit Analysis (Low, Medium, High)	on the reduction of risk exposure for life and property, or project will provide an immediate
Actual Completion Date	Cost Analysis (Low, Medium, High)	existing budget. The project is part of or can be
	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					
	Flood					
	Extreme Heat					
	Lightning					
	Hail					
	Fog					
	High Wind					
	Snow					
	Blizzard					
	Extreme Cold					
	Ice Storms					
Х	Tornado					
Х	Epidemic or pandemic					
	Nuclear Power Plant Incident					
	Widespread Power Outage					
	Coastal Erosion					
	Secondary Impacts from Mass Influx of Evacuees					
Х	Hazardous Materials Incident					

Mitigation Action	Implement the Green Alley Improvements and Public Works Facility Demonstration Rain
	Garden
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Park
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	Village of Oak Park
Applicable Goal	<ul> <li>Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events and potential damage from such activities.</li> <li>Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazard</li> </ul>
Applicable Objective	<ul> <li>Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
Potential Funding Source	N/A
Estimated Cost	N/A
Benefits (loss avoided)	N/A
Projected Completion Date	TBD
Priority and Level of Importance (Low, Medium, High)	N/A
Benefit Analysis (Low, Medium, High)	N/A
Cost Analysis (Low, Medium, High)	N/A
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	Status (X, O, C, R, N)	
# O-4.1	Identify combined sewer system defects through video inspection		
Status Description: Yes	This is an ongoing project	0	
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)	
# O-4.2	Conduct sewer main repairs		
Status Description: Yes	These are ongoing projects with work being completed each year	0	
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)	
# O-4.3	Identify sewer capacity contraints		
Status Description: Yes	As part of the above ongoing projects, sewer capacity constraints are being identified and schedule for repair. The Village has ongoing sewer televising and flushing programs.	0	
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)	
# O-4.4	Education program to encourage downspout disconnection		
Status Description: Yes	Ongoing program with Public Works and the Village Communications department working together to educate residents	0	
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)	
# O-4.5	Implement education program promoting native landscapes		
Status Description: Yes	On September 6, 2016, the Oak Park Village Board approved a pilot program (RainReady) with CNT to minimize impacts to flooding via rain gardens, bioswales, permeable pavements, etc. to reduce impacts. In 2017 & 2018 30 applications were approved for grants.	0	
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)
# O-4.6	Adopt financial assistance programs encouraging homeowners to install sewer backflow preventers	
Status Description: Yes	Financial program remains in place with \$200,000 funded in 2018 and is budgeted for \$200,000 in 2019. This continues to be a popular program which supports approximately 60 grants per year.	0
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)	
# O-4.7	Implement tree planting program		
Status Description: Yes	Trees are planted every year in Oak Park to increase water retention and canopy. In 2017, 555 trees were replanted and in 2018 it is anticipated that 604 trees will be planted.	0	
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)	
# O-4.11	Support the county plan		
Status Description: Yes	We continue to support the county plan as required and requested	0	
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)	
# O-4.12	Actively participates in plan maintenance		
Status Description: Yes	Updates information as required and fulfills reporting requests	0	
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	Status (X, O, C, R, N)		
# O-4.8	Update the Village Comprehensive Plan			
Status Description: Yes	The plan was adopted 9/15/2014	С		
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)
# O-4.13	Update of the Village Emergency Operations Plan.	
Status Description: Yes	On September 17, 2017 the Village Board of Trustees approved a resolution approving and adopting updates to the Village of Oak Park Emergency Operations Plan and authorized its implementation. The updated plan included a "Concept of Operations", "Organization & Responsibilities", "Direction & Control", "Continuity of Government" and a detailed "Emergency Operations Checklist" specific to Public Works and the infrastructure of Oak Park	С
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

OAK PARK EXISTING CONDITIONS				
2010 Population	51,878			
Total Assessed Value of Structures and Contents	\$9,653,761,137			
Area in 100-Year Floodplain	0.00 acres			
Area in 500-Year Floodplain	0.00 acres			
Number of Critical Facilities	57			

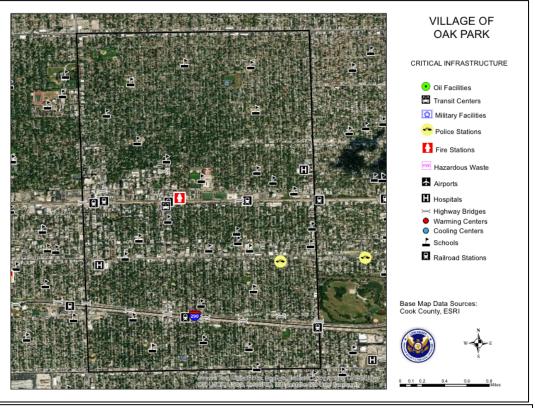
HAZARD EXPOSURE IN OAK PARK							
	Number Exposed		Value Exposed to Hazard			% of Total Assessed	
	Population	Buildings	Structure	Contents	Total	Value Exposed	
Dam Failure	Dam Failure						
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%	
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%	
Touhy	0	0	\$0	\$0	\$0	0.00%	
U. Salt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

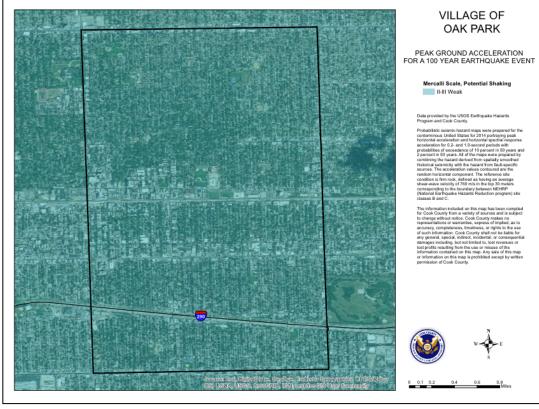
500-Year	0	0	\$0	\$0	\$0	0.0%
Tornado						
100-Year	_	_	\$776,541,666	\$481,519,974	\$1,258,061,640	13.03%
500-Year	_	_	\$1,891,897,182	\$1,393,858,190	\$3,285,755,372	34.04%

ESTIMATED PROPERTY DAMAGE VALUES IN OAK PARK						
	Estim	% 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	\$42,146,488	\$10,524,314	\$52,670,803	0.55%		
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	\$77,654,167	\$48,151,997	\$125,806,164	1.30%
500-Year	\$276,216,989	\$203,503,296	\$479,720,284	4.97%

# Hazard Mapping







#### VILLAGE OF OAK 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 hundation 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.









#### VILLAGE OF OAK PARK

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

high low

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

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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 OAK 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.

Data prioritized by the testing state (Section 2014). The Central United States Earthquake Consortum (CUSEC) States Central United States Earthquake Consortum (CUSEC) States Central Central

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# VILLAGE OF OAK 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 0.1 0.2 0.4 0.6 0.8