

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

Oak Lawn 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	Alternate Point of Contact
Cmdr. Art Clark, EMA Coordinator 9446 S. Raymond Avenue Oak Lawn, IL. 60453 Telephone: 708-636-5141 Email Address: aclark@oaklawn-il.gov	Larry Deetjen, Village Manager 9446 S. Raymond Avenue Oak Lawn, IL. 60453 Telephone: 708-499-7743 Email Address: ldeetjen@oaklawn-il.gov	Jack Gallagher, Village Engineer 9446 S. Raymond Avenue Oak Lawn, IL. 60453 Telephone: 708-499-7044 Email Address: jgallagher@oaklawn-il.gov

Jurisdiction Profile

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

- **Date of Incorporation:** 1909
- **Current Population:** The 2018 US Census population estimate for Oak Lawn was 55,511.
- **Population Growth:** The 1960s marked a decade of rapid growth. The population had tripled to 27,000 and the village annexed land which extended its boundaries west to Harlem Avenue. Thousands of new families settled in the community. Many came from the South Side of Chicago. Expansion was temporarily halted in April, 1967 when Oak Lawn was struck by a tornado which killed 13 people and caused millions of dollars in damage. The population peaked in the mid-1970s at 63,500 and then dropped back to 60,000. The population has remained relatively steady since.
- **Location and Description:** The Village of Oak lawn is located in southwestern Cook County, fifteen miles from Chicago's loop. It lies just east of I-294 and is bordered by Harlem Avenue and Pulaski Road. Adjacent communities to Oak Lawn are: Burbank to the north, Alsip to the South, Evergreen Park to the east, and Hickory Hills and Chicago Ridge to the west. Oak Lawn is primarily a commercial village with its major area encompassing a 24 block sector on 95th Street between Pulaski Avenue and Ridgeland Avenue. Oak Lawn is also home to Advocate Christ Medical Center- the busiest Level 1 trauma centers in the State of Illinois which is situated on the Northeast side of town off of 95th Street. According to the US Census Bureau, the Village of Oak Lawn has a total land area of 8.5 square miles.
- **Brief History:** In 1842, a land broker named Julian Hatch purchased 1,273 acres of the land comprising modern Oak Lawn. The first settler was John Simpson, a farmer who purchased in 1842 a heavily wooded land parcel along modern 95th Street and in 1858 established his farm. By 1860, Black Oaks Grove (Oak Lawn today) had its first school. The impetus for the community's initial growth came in 1879 when John and Charles Simpson, John Simpson, Jr. And Franklin Chamberlain signed an agreement with a railroad builder, Colonel Ralph Plumb to route a railroad through the Village with freight and passenger station, as well as a telegraph office.
- **Climate:** The climate of Oak Lawn is similar to that of the whole Chicago area. Oak Lawn enjoys the variation of four seasons. Summer temperatures can often reach into the 90s while Oak Lawn has seen temperatures fall below zero in the winter. The Village has experienced
- **Governing Body Format:** The legislative governing body of the Village of Oak Lawn is comprised of the Mayor and six Village Trustees. This body of Government will assume the responsibility for the adoption and implementation of this plan. The six Trustees represent the six districts within the Village and are elected to four-year terms by the voters in each of their respective districts. Terms are staggered; hence, there are always three experienced legislators on the Board serving the citizens of Oak Lawn. Village departments include Police, Fire/EMS, Emergency Communications, Public Works, Finance, Economic Development, Development and Growth Management, and the Office of the Village Manager who is responsible for the day to day administration of the Village.

- **Development Trends:** Oak Lawn has a robust commercial and medical office sector including a recently expanded Level One Trauma center and several new Class A Medical Office Buildings. Oak Lawn has completed and adopted 3 “Corridor Plans with Chicago Metropolitan Agency for Planning for Cicero Avenue, for 95th Street and for Ridgeland Avenue. These plans cover commercial zoned “corridor” around the major arterials that pass through Oak Lawn and focus on economics, best and highest land use, transit oriented development, access and streetscapes. Oak Lawn has been extremely successful at attracting and retaining business within the village due to the proactive and forward-thinking actions of its elected officials. A solid infrastructure and a commitment to economic development are just some of the reasons why businesses continue to succeed in Oak Lawn. Each day, over 500 commuters ride THE METRA Commuter Train to Chicago. Equally important is the fact that over 100,000 cars pass through the community on a daily basis.

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	Yes	No	Yes	In accordance with Public Act 096-0704, Illinois has adopted the IBC as its state Building Code. Local building, plumbing, electrical and property maintenance codes were updated to the 2012 version in Feb of 2014. 2012 International Residential Code 2012 International Building Code (IBC) 2012 International Mechanical Code 2012 International Fuel & Gas Code

					2012 Property Maintenance Code 2012 Fire Code 2011 Chicago Plumbing Code 2013 Chicago Electric Code 2012 International Energy Conservation Code Adapted by the State of Illinois: (No amendments required) 1997 Accessibility Code - Adapted by the State of Illinois: (No amendments required)
Zonings	Yes	No	No	Yes	(65 ILCS 5/) Illinois Municipal Code. Local ordinance Title 4 1965
Subdivisions	Yes	No	No	No	Title 5 1956
Stormwater Management	Yes	No	Yes	Yes	State EPA regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Local ordinance Title 5 Chapter 4 1979 MWRD Water Management Ordinance

Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	Yes	No	No	No	Local agency documents: 95th Street Corridor Plan, March 2014, Cicero Corridor Plan in progress, Ridgeland Corridor Plan in Progress
Site Plan Review	Yes	No	No	No	Title 4 1965
Public Health and Safety	No	No	Yes	Yes	Illinois Department of Public Health Local ordinance: Title 8 Public Health and Sanitation
Environmental Protection	Yes	No	Yes	No	IEPA, U.S. EPA
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	1997
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					Yes
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	Yes	No	Yes	No	Regional storm water projects are managed by MWRD. The Village lies within the Calumet-Sag Channel watershed planning area of

					MWRD's Detailed Watershed Plan.
Capital Improvement Plan	Yes	No	No	No	
<i>What types of capital facilities does the plan address?</i>					Infrastructure, maintenance
<i>How often is the plan revised/updated?</i>					Annual
Habitat Conservation Plan	No	No	Yes	No	Illinois Department of Natural Resources
Economic Development Plan	Yes	No	Yes	Yes	Local Economic Development Commission provides input on various 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	Yes	No	Yes	Yes	Cook County DHSEM Local Plan Adopted in 2012
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	Yes	No	Yes	Yes	Cook County DHSEM
Post-Disaster Recovery Plan	As part of EOP	No	Yes	Yes	Cook County DHSEM

Continuity of Operations Plan	Yes	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	Yes	No	Cook County DPH

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

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	Community Development and Growth Management
Engineers or professionals trained in building or infrastructure construction practices	Yes	Community Development and Growth Management
Planners or engineers with an understanding of natural hazards	Yes	Community Development and Growth Management
Staff with training in benefit/cost analysis	Yes	Community Development and Growth Management
Surveyors	Yes	Surveying consultants serving Village

Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium Community Development and Growth Management Dept.
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Oak Lawn Emergency Management Agency
Grant writers	Yes	Oak Lawn Police Dept., Fire Dept., and CD & G

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	Community Development and Growth Management
Who is your jurisdiction’s floodplain administrator? (department/position)	Community Development and Growth Management/Village Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	12/10/2013
When was the most recent Community Assistance Visit or Community Assistance Contact?	12/18/1996
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
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No

TABLE: COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Community Rating System	No	NA	NA
Building Code Effectiveness Grading Schedule	Yes	4/5	2014
Public Protection/ISO	Yes	Unknown	NA
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	Yes	NA	Multiple years

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: 1
- Number of FEMA-Identified Severe Repetitive Loss Properties: None
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: None

Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Severe Weather	-	5/18/2017	-
Hail	-	4/10/2017	-
Hail	-	3/20/2017	-
Snow Storm	FEMA-1960-DR-IL	1/31/2011 - 2/3/2011	\$69,352.91
Flooding	FEMA-1800-DR-IL	9/12/2008 - 9/15/2008	\$174,796.40
Snow Storm	EM-3161	12/11/2000	-
Snow Storm	EM-3134	1/1/1999	-
Snow Storm	EM-3068	1/16/1979	-

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 repetitive damage to several areas of town as a result of flooding.

Extreme Heat: The Village is highly vulnerable to the impacts of extreme heat because a high percentage of its population is elderly and depend on cooling during summer.

Hail: The Village has experienced periodic hail.

High Winds: The Village has experienced periodic high wind events.

Snow: The Village has experienced a high frequency of heavy snow events.

Blizzards: The Village has experienced a high frequency of blizzards.

Extreme Cold: The Village has experienced periodic extreme cold events.

Ice Storms: The Village has experienced periodic ice storms.

Tornado: Previously, the Village experienced a major tornado in 1967. Since then, the Village has experienced occasional microbursts. The trailer park within the Village would be vulnerable to the impacts of a tornado.

Widespread Power Outage: A line of severe thunderstorms moved from Iowa into northwest Illinois during the midafternoon hours and then raced east across northern Illinois producing damaging winds as high as 90 mph. These thunderstorms produced widespread wind and tree damage across northern Illinois. More than half a million customers lost power during the storms. (6/18/2010) Village suffers frequent power outages during natural disasters/weather related events.

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	48
2	Severe Winter Weather	61
3	Severe Weather	39
4	Flooding	56
5	Earthquake	11
6	Drought	37
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 O3.1—Mass Notification options to reduce injuries and death						
Completed	All	1, 5	OL Police, Fire, 911, EMA	Medium	Capital/Grant	Completed
Action O3.2—Tornado Siren System upgrade						
Completed	Tornado	1, 5	OL EMA	High	Capital	Completed
Action O3.3—NOAA Weather Alert Radios						
Completed	All Severe Weather	1, 5, 12	OL EMA	Medium	Illinois Law Enforcement Alarm System Grant	Completed
Action O3.4—Training of Damage Assessment Crews						

Ongoing	All	1, 6, 8	OL Police Dept.	Low	OL Police Dept.	Short-term
Action O3.5—SMART 911 Notification						
Ongoing	All	1, 5	OL 911 Dispatch	Low	911 Board	Short-term
Action O3.6—NOAA Storm Ready Community						
Removed	All	1, 5, 8	OL EMA	Low	OL Police Dept., EMA	Removed
Action O3.7—Social Media tools – Facebook, Twitter						
Ongoing	All	1, 6, 8	OL EMA	Low	Village IT	Short-term
Action O3.8—Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage.						
Ongoing	All	7, 13	Village	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action O3.9—Continue to support the countywide actions identified in this plan.						
Ongoing	All	All	Village	Low	General Fund	Short- and long-term
Action O3.10—Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	DHSEM, Village	Low	General Fund	Short-term
Action O3.11—Consider participation in incentive-based programs such as the Community Rating System, and Tree City.						
Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Village	Low	General Fund	Long-term
Action O3.12—Village maintains good standing in National Flood Insurance Program						
Ongoing	Flooding	4, 6, 9	Community Development and Growth Management	Low	General Fund	Short-term and ongoing

Action O3.13 —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 O3.14 —Integrate the hazard mitigation plan into other plans and programs.						
Ongoing	Earthquake, Flood, Extreme Heat, Lightning, Hail, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widespread Power Outage, Secondary Impacts from Mass Influx of Evacuees, Hazardous Materials Incident	3, 4, 6, 10, 13	Community Development and Growth Management	Low	General Fund	Short-term
Action O3.15 —Installation of 150 KW Backup Generator						
New	Flood, Extreme Heat, Lightning, Hail, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widespread Power Outage, Hazardous Materials Incident	1, 2, 5, 8	Oak Lawn Public Works	\$106,000 ; High	Grant/Local	2019
Action O3.16 —Installation of 60 KW Backup Generator						
New	Flood, Extreme Heat, Lightning, Hail, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widespread Power Outage, Hazardous Materials Incident	1, 2, 5, 8	Oak Lawn Public Works	\$40,000; High	Grants/Local	2019

Action O3.17—Installation of 500 KW Backup Generator						
New	Flood, Extreme Heat, Lightning, Hail, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widespread Power Outage	1, 2, 5, 8	Oak Lawn Public Works	\$311,000 ; High	Grants/Local	2019
Action O3.18—Installation of (2) 715KW and (1) 400KW GENSET Backup Generators						
New	Earthquake, Flood, Extreme Heat, Lightning, Hail, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widespread Power Outage, Secondary Impacts from Mass Influx of Evacuees, Hazardous Materials Incident	1, 2, 5, 8	Oak Lawn Public HS District	\$1,500,000; High	Grants/Local	2019
Action O3.19—Installation of 500 KW Backup Generator						
New	Flood, Extreme Heat, Lightning, Hail, High Wind, Snow, Blizzard, Extreme Cold, Ice Storms, Tornado, Widespread Power Outage, Secondary Impacts from Mass Influx of Evacuees, Hazardous Materials Incident	1, 2, 5, 8	Richards High School/District	TBD; High	Grants/Local	2019
Action O3.20—Installation of 500 KW Backup Generator						
New	Flood, Extreme Heat, Lightning, Hail, Fog, High Wind, Snow, Blizzard, Ice Storms, Tornado, Widespread Power Outage, Secondary Impacts from Mass Influx of Evacuees,	1, 2, 5, 8	Oak Lawn Park District	\$250,000 ; High	Grants/Local	2019

	Hazardous Materials Incident					
Action O3.21—Streambank Stabilization along Oak Lawn Creek						
New	Flood	2, 3, 13	MWRD	\$3,035,000	MWRD	N/A
Action O3.22—Streambank Stabilization along Melvina Ditch						
New	Flood	2, 3, 13	MWRD	\$8,800,000	MWRD	N/A
(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	Medium	Yes	No	Yes	High
2	2	High	High	Yes	Yes	No	Medium
3	3	Medium	Medium	Yes	Yes	Yes	High
4	3	Medium	Low	Yes	No	Yes	High
5	2	High	Low	Yes	No	Yes	High
6	3	Medium	Low	Yes	No	Yes	High
7	3	High	Low	Yes	No	Yes	High
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	3	Medium	Low	Yes	No	Yes	High
13	3	Medium	Medium	Yes	Yes	No	Medium
14	5	Medium	Low	Yes	No	Yes	High
15	4	Unknown	High	Yes	Yes	Unknown	High

16	4	High	High	Yes	Yes	Unknown	High
17	4	High	High	Yes	Yes	Unknown	High
18	4	High	High	Yes	Yes	Unknown	High
19	4	High	High	Yes	Yes	Unknown	High
20	4	High	High	Yes	Yes	Unknown	High
21	3	High	High	Yes	Yes	Unknown	High
22	3	Unknown	High	Yes	Yes	Unknown	Unknown

(a) See Chapter 1 for explanation of priorities.

New Mitigation Actions

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

Action O3.15

Mitigation Action	Installation of 150 KW Backup Generator
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	Oak Lawn Public Works
Supporting Agencies/Organizations	Oak Lawn Emergency Management Agency
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures. • Establish partnerships among all levels of local government, the private sector, and/or nongovernmental organizations to improve and implement methods to protect people and property.
Potential Funding Source	Grant/Local
Estimated Cost	\$106,000
Benefits (loss avoided)	Back up power source for PW Facility Servicing Emergency Vehicles

Projected Completion Date	2019
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High–Project will provide an immediate reduction of risk exposure for life and 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:	Installation of 150 KW back up power generator to keep critical facility powered. Village suffers frequent power outages during natural disasters/weather related events. Facility provide Storm Response operations and vehicle maintenance. Generator will allow critical functions to continue during extended power outages. Oak Lawn provides mutual aid to surrounding communities so this facility serves not only Oak Lawn but would aid neighboring communities. Project could be completed in 60 days.

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

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

X	Extreme Cold
X	Ice Storms
X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
X	Hazardous Materials Incident

Action O3.16

Mitigation Action	Installation of 60 KW Backup Generator
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	Oak Lawn Public Works
Supporting Agencies/Organizations	Oak Lawn Emergency Management Agency
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures. • Establish partnerships among all levels of local government, the private sector, and/or nongovernmental organizations to improve and implement methods to protect people and property.
Potential Funding Source	Grants/Local
Estimated Cost	\$40,000
Benefits (loss avoided)	Back up power to critical Radio Tower providing communication to Regional 911 Center

Projected Completion Date	2019
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High–Project will provide an immediate reduction of risk exposure for life and 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:	Installation of Back up power source for Radio Tower serving Regional 911 Center. Center support (6) Police Departments,(8) Fire Departments serving a combined population of over 209,000 residents. Generator will allow Emergency Communication functions to continue during extended power outages.

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

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

X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
X	Hazardous Materials Incident

Action O3.17

Mitigation Action	Installation of 500 KW Backup Generator
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	Oak Lawn Public Works
Supporting Agencies/Organizations	Oak Lawn Emergency Management Agency
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures. • Establish partnerships among all levels of local government, the private sector, and/or nongovernmental organizations to improve and implement methods to protect people and property.
Potential Funding Source	Grants/Local
Estimated Cost	\$311,000
Benefits (loss avoided)	Back up Power to Municipal Center which serve Police/Fire Departments and Regional 911

	Center serving (6) Police and (8) Fire Departments
Projected Completion Date	2019
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High–Project will provide an immediate reduction of risk exposure for life and 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:	Installation of 500 KW Back up Generator. Municipal Center houses Police/Fire and local government for Village of Oak Lawn and Regional 911 Center serving (14) separate communities. As Communications technology has changed with increasing power demands for electricity. Generator will allow critical functions and service during periods of extended power outages.

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

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

X	Extreme Cold
X	Ice Storms
X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

Action O3.18

Mitigation Action	Installation of (2) 715KW and (1) 400KW GENSET Backup Generators
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	Oak Lawn Public HS District
Supporting Agencies/Organizations	Oak Lawn Emergency Management Agency
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures. • Establish partnerships among all levels of local government, the private sector, and/or nongovernmental organizations to improve and implement methods to protect people and property.
Potential Funding Source	Grants/Local
Estimated Cost	\$1,500,000 (for all 3 generators)
Benefits (loss avoided)	Backup Power capability for Emergency Shelter

Projected Completion Date	2019
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High–Project will provide an immediate reduction of risk exposure for life and 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:	Installation of Back up power to allow High School to serve as emergency shelter during periods of extended power outages. With almost 60,000 residents and both frequent weather related events and power outages, Back up generator will allow for emergency shelter and housing. School also serves as Mass Dispensing Location for Cook County Department of Public Health.

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

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

X	Ice Storms
X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
X	Secondary Impacts from Mass Influx of Evacuees
X	Hazardous Materials Incident

Action O3.19

Mitigation Action	Installation of 500 KW Backup Generator
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	Richards High School/District
Supporting Agencies/Organizations	Oak Lawn Emergency Management Agency
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures. • Establish partnerships among all levels of local government, the private sector, and/or nongovernmental organizations to improve and implement methods to protect people and property.
Potential Funding Source	Grants/Local
Estimated Cost	estimated cost TBD
Benefits (loss avoided)	Richards HS serves as Emergency Shelter
Projected Completion Date	2019

Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High–Project will provide an immediate reduction of risk exposure for life and 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:	Installation of Back up power to allow High School to serve as emergency shelter during periods of extended power outages. With almost 60,000 residents and both frequent weather related events and power outages, Back up power will allow for emergency shelter and housing. School also serves as Mass Dispensing location for Cook County Department of Public Health.

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

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

X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
X	Secondary Impacts from Mass Influx of Evacuees
X	Hazardous Materials Incident
estimated cost TBD	

Action O3.20

Mitigation Action	Installation of 500 KW Backup Generator
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	Oak Lawn Park District
Supporting Agencies/Organizations	Oak Lawn Emergency Management Agency
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures. • Establish partnerships among all levels of local government, the private sector, and/or nongovernmental organizations to improve and implement methods to protect people and property.
Potential Funding Source	Grants/Local
Estimated Cost	\$250,000
Benefits (loss avoided)	OL Park District Pavilion serves as an Emergency Shelter

Projected Completion Date	2019
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High–Project will provide an immediate reduction of risk exposure for life and 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:	Installation of Back up power to allow Pavilion to serve as Emergency Shelter during periods of extended power outages. With almost 60,000 residents and both frequent weather related events and power outages, Back up power will allow for emergency shelter and housing.

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

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

X	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
X	Secondary Impacts from Mass Influx of Evacuees
X	Hazardous Materials Incident

Action O3.21

Mitigation Action	Streambank Stabilization along Oak Lawn Creek
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	Village of Oak Lawn
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 and potential damage from such activities.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. • 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	\$3,035,000
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:	ID: OLCR-3 Contract: 10-237-3F

	Watershed: Cal-Sag Channel Location: Oak Lawn, IL Stabilized approximately 1,200 linear feet of Oak Lawn Creek from Central Avenue to Massasoit Avenue using soldier piles and precast concrete panels.
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Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	Construction substantially complete. Under maintenance & monitoring period.
2020		
2021		
2022		
2023		

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

Action O3.22

Mitigation Action	Streambank Stabilization along Melvina Ditch
Year Initiated	2019
Applicable Jurisdiction	Village of Oak Lawn
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	Village of Oak Lawn
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 and potential damage from such activities.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. • 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	\$8,800,000
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)	High
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	ID: MEDT-1 Contract: 13-248-3F

	<p>Watershed: Cal-Sag Channel Location: Chicago Ridge, Oak Lawn, IL Stabilization along Melvina Ditch, from 95th Street to 99th Street. Approximately 150 linear feet of the ditch at the north end of the project will be stabilized with twin box culverts. The remaining 2,500 linear feet of the ditch will be stabilized with a precast concrete modular block retaining wall system.</p>
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Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	Finalizing easements and permits. Preparing for bidding in Fall 2019.
2020		
2021		
2022		
2023		

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

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 O3.4

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 4—O3.4	Training of Damage Assessment Crews	
Status Description: Yes	Crews continue to receive training as needed	X
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.5

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 5—O3.5	Smart911 Notification	
Status Description: Yes	Used on daily basis to alert community of crime and weather related events.	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.7

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 7—O3.7	Social Media Tools - Facebook, Twitter	
Status Description: Yes	Village employees use Facebook/Twitter to distribute Weather related information and warnings.	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.8

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 8—O3.8	Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future damage.	
Status Description: Yes	Village as completed purchase of 1 of 2 flood prone properties, Work on second property is ongoing.	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.9

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 9—O3.9	Continue to support the county wide actions identified in this plan	
Status Description: Yes	Village Departments continue to work with CCDHSEMA to implement this plan	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.10

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 10—O3.10	Actively participate in the plan maintenance strategy	
Status Description: Yes	Village Departments continue to work with CCDHSEMA to implement this plan	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.11

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 11—O3.11	Consider participation in incentive based programs such Community Rating system and Tree City	
Status Description: Yes	Village Departments regularly participate in Tree City and other Green related program for environmental improvements	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.12

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 12—O3.12	Village maintains good standing in National Flood Insurance Program	
Status Description: Yes	Village continues to follow NFIP rules when issuing permits and enforcements	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.13

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 13—O3.13	Where feasible implement a program to record high water marks following high water events	
Status Description: Action Taken?	Village installs and maintains rain gages	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.14

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 14—O3.14	Integrate the hazard mitigation plans into other plans and programs	
Status Description: Yes	Village integrates Hazard Mitigation plans with other Village programs for Disaster preparedness	O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Completed Mitigation Actions

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

Action O3.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 1—O3.1	Mass Notification options to reduce injuries and death	
Status Description: Yes	System is employed, Village uses SMART 911 Mass Notification	C
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 2—O3.2	Tornado Siren System upgrade	
Status Description: Yes	New Siren System has been installed and is operational	C
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Action O3.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 3—O3.3	NOAA Weather Alert Radios	
Status Description: Yes	Deployed to all schools, Nursing homes and public buildings	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

St.Casmir Reservoir Project

To reduce the threat of flood, a large regional storm water reservoir in the St. Casmir Cemetery could hold from 400 to 800 acre feet of storage and lower the flood plain elevation of Stony Creek. This project has been identified in the MWRD Detailed Watershed Plan, with a conceptual plan and cost analysis, including partial funding by the MWRD. Detailed design has not occurred and discussions with the land owner are still underway. The project could also serve as a regional recreational green space.

Additional verbage

Stoney Creek Promenade Phase III

Redevelop 8 acre former manufacturing area for use as Senior Housing and provide stormwater detention/flood plane mitigation as needed in an area that lacks this.

Oakdale Pond Expansion

Oakdale Pond expansion of 4.6 acre feet reservoir. 0

103rd street new stormwater detention and back flow prevention West of Cicero ave to Stoney Creek. Rebuilds 103rd street, install stormwater detention underneath road and install backflow prevention device at outflow to Stoney Creek.

Currently, Stoney Creek backs up into storm sewers under 103rd street, which reduces the capacity of storm sewer capacity to drain residential neighborhoods.

Additional Comments

No additional comments at this time

HAZUS-MH Risk Assessment Results

OAK LAWN EXISTING CONDITIONS	
2010 Population	56,690
Total Assessed Value of Structures and Contents (2018)	\$1,151,662,881
Area in 100-Year Floodplain	349.98 acres
Area in 500-Year Floodplain	417.50 acres
Number of Critical Facilities	71

HAZARD EXPOSURE IN OAK LAWN						
	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	2,083	641	\$697,560,528	\$613,810,162	\$1,311,370,691	8.62%

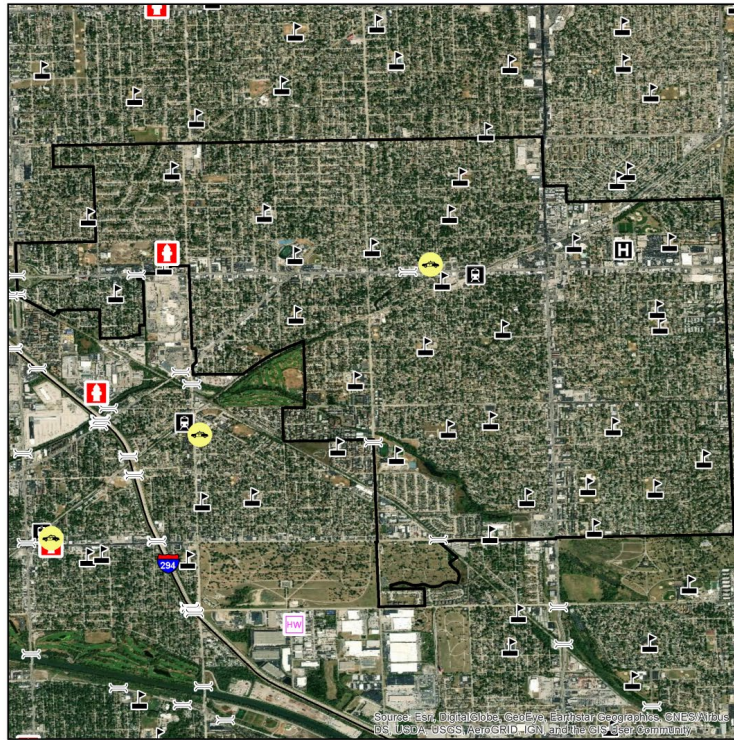
500-Year	2,408	741	\$734,311,652	\$632,436,782	\$1,366,748,434	8.99%
Tornado						
100-Year	—	—	\$940,845,686	\$661,083,572	\$1,601,929,258	10.53%
500-Year	—	—	\$1,355,620,753	\$882,181,279	\$2,237,802,032	14.72%

ESTIMATED PROPERTY DAMAGE VALUES IN OAK LAWN

	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	\$130,396,736	\$39,144,706	\$169,541,442	1.11%
Flood				
10-Year	\$498,862	\$445,980	\$944,842	0.01%
100-Year	\$18,278,103	\$26,914,202	\$45,192,305	0.30%
500-Year	\$47,134,661	\$85,175,346	\$132,310,007	0.87%

Tornado				
100-Year	\$94,084,569	\$66,108,357	\$160,192,926	1.05%
500-Year	\$197,920,630	\$128,798,467	\$326,719,097	2.15%

Hazard Mapping



VILLAGE OF OAK LAWN

CRITICAL INFRASTRUCTURE

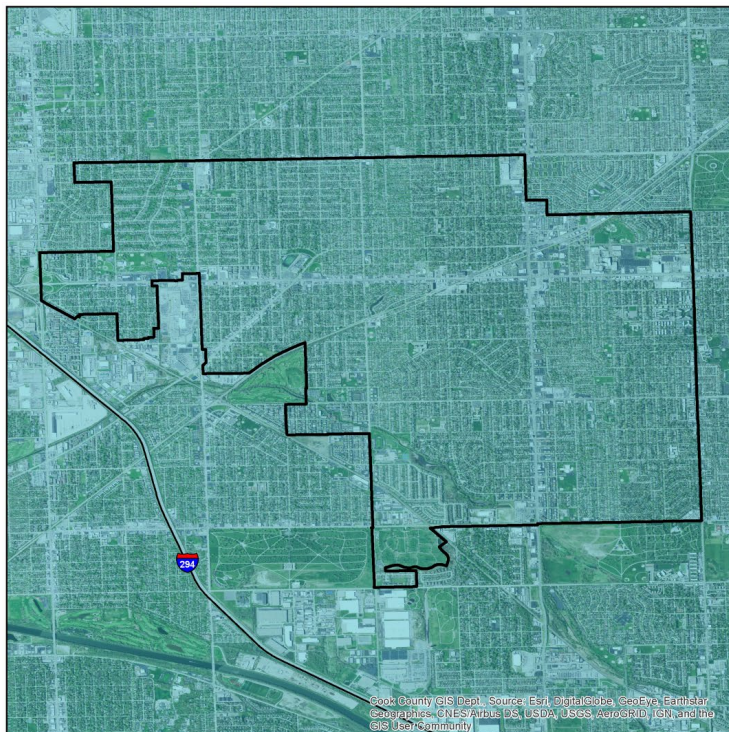
- Oil Facilities
- Transit Centers
- Military Facilities
- Police Stations
- Fire Stations
- Hazardous Waste
- Airports
- Hospitals
- Highway Bridges
- Warming Centers
- Cooling Centers
- Schools
- Railroad Stations

Base Map Data Sources:
Cook County, ESRI



0 0.175 0.35 0.7 1.05 1.4 Miles

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



VILLAGE OF OAK LAWN

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.

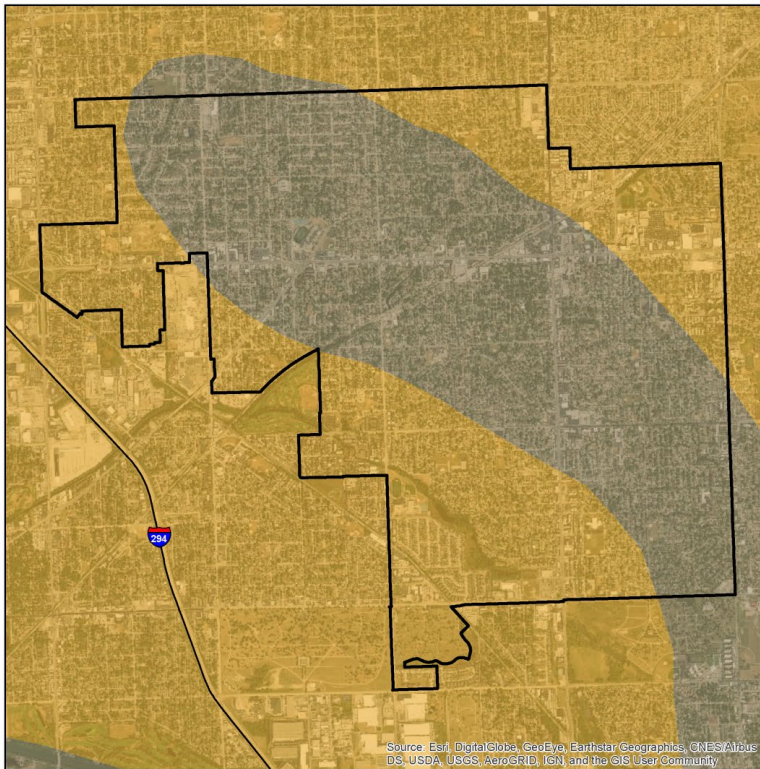
Probabilistic seismic-hazard maps were prepared for the conterminous United States for 2014 portraying peak horizontal acceleration and horizontal spectral response acceleration for 0.2- and 1.0-second periods with probabilities of exceedance of 10 percent in 50 years and 2 percent in 50 years. All of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

The information included on this map has been compiled by Cook County from a variety of sources and is subject to change without notice. Cook County makes no representations or warranties, express or 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.



0 0.2 0.4 0.8 1.2 1.6 Miles

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



**VILLAGE OF
OAK LAWN**

**NATIONAL EARTHQUAKE HAZARD
REDUCTION PROGRAM (NEHRP)
SOIL CLASSIFICATION**

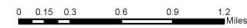
TYPE

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

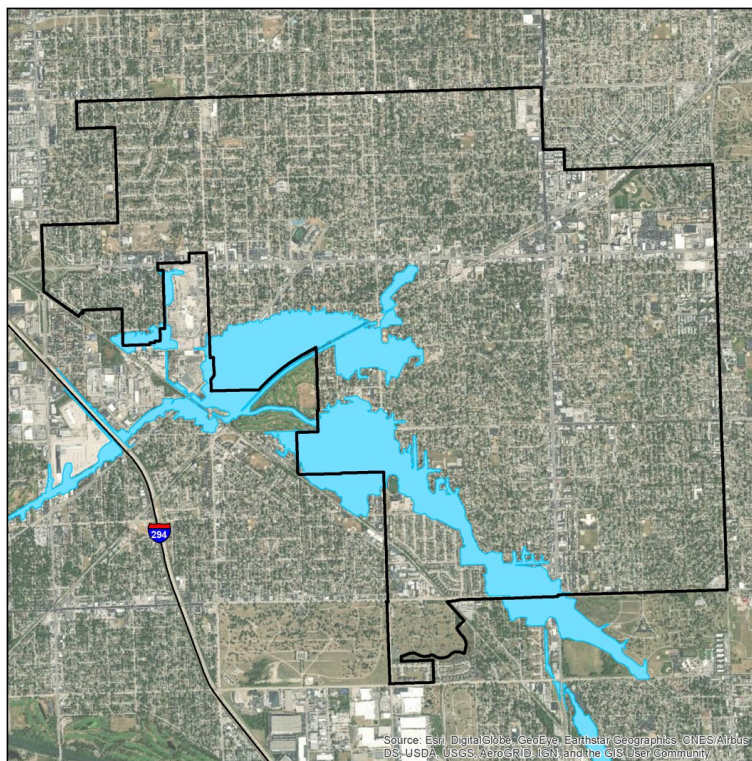
Data provided by the Illinois State Geological Survey and Cook County.

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2789 Map of Surficial Deposits and Materials in the Eastern and Central United States (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Pienzell (2003) was the base map used for this work. Each State Geological Survey produced its own state map version of the Soil Site Class and Liquefaction Susceptibility maps. The procedures outlined in the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 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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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus, DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**VILLAGE OF
OAK LAWN**

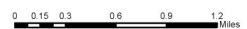
**COOK COUNTY MWRDGC
100-YEAR INUNDATION AREA**

100-year Inundation Area

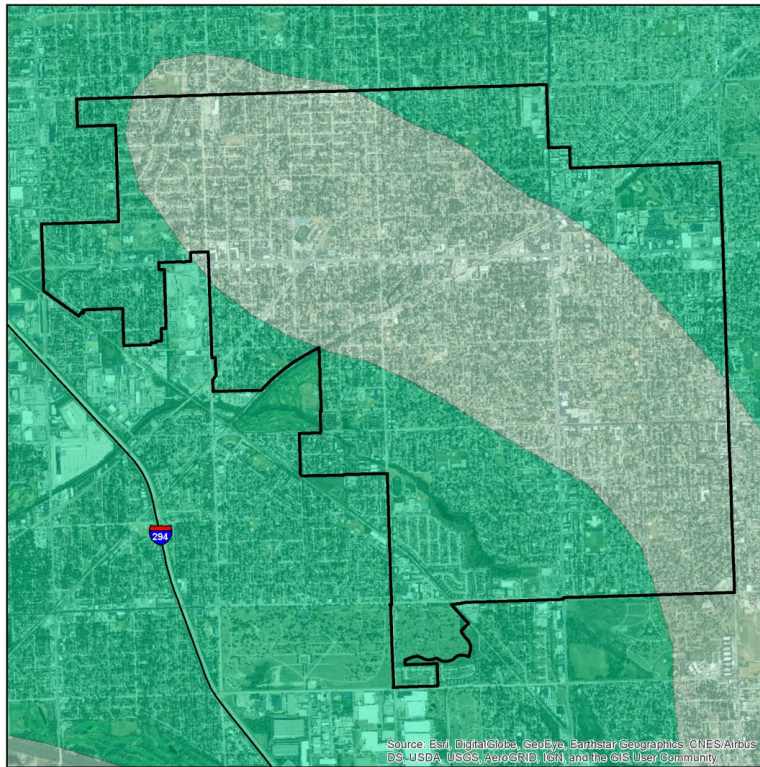
MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

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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



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VILLAGE OF OAK LAWN

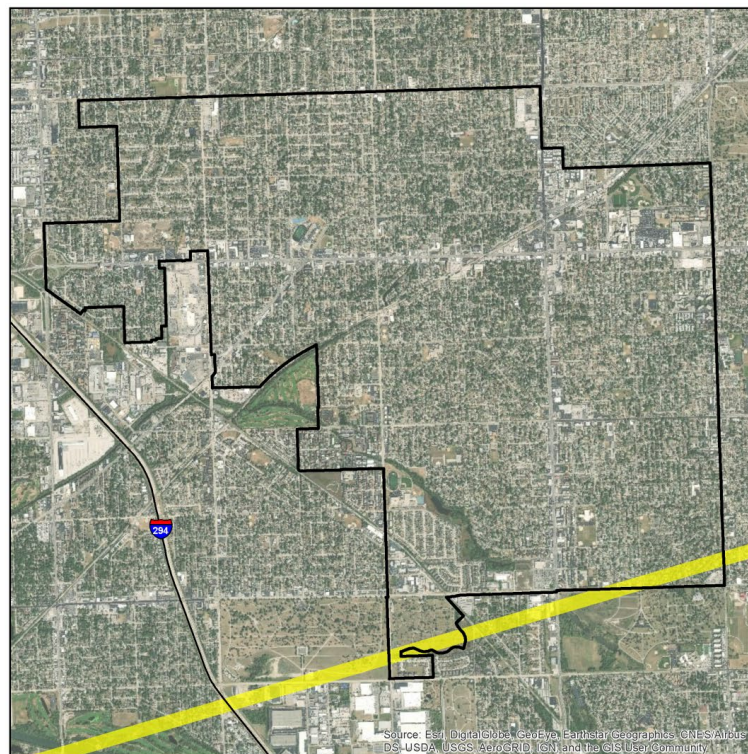
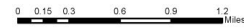
LIQUEFACTION SUSCEPTIBILITY

- LIQUEFACTION SUSCEPTIBILITY**
- high
 - low
 - very low

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VILLAGE OF OAK LAWN

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.

