

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

**Wilmette Annex**

**FINAL**

July 2019

Prepared for:



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## Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
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## Jurisdiction Profile

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

- **Date of Incorporation:** 1872
- **Current Population:** 27,393 as of the 2013-2017 American Community Survey 5-Year Estimates
- **Population Growth:** Comparing numbers from the 2010 census and the 2013-2017 community survey, the population of Wilmette has seen an increase of a little over 1%. The community has increased from 27,087 to 27,393 inhabitants.
- **Location and Description:** Wilmette is located approximately 15 miles north of downtown Chicago in New Trier Township within Cook County. The Village extends approximately five miles west from Lake Michigan and is approximately one mile wide (its area is 5.4 square miles). Its municipal neighbors include Evanston and Skokie to the south, Glenview to the west and Kenilworth and Northfield on the north. The eastern border of Wilmette is Lake Michigan. The Village of Winnetka and part of the western boundary of Wilmette are separated by an unincorporated, residential area.
- **Brief History:** The present Village of Wilmette is distinct among North Shore communities because it was created by the 1924 merger of two older villages, Wilmette and Gross Point. The origins and development of these two communities differed, and this difference is still visible in the landscape. On the east, Wilmette developed on a wooded tract bordering Lake Michigan. On the west, Gross Point was the center of a German immigrant, farming community that spread across the open fields west of what is now Ridge Road. Native Americans were the first people to inhabit this region. European contact began with the arrival of French explorers three centuries ago. At that time, the Potawatomi people were living in this area. In 1953, a prominent Wilmette landmark, the Baha'i House of Worship, was completed forty years after its construction began. The population grew from 1,162 in 1950 to 32,134 by 1970. When the Village celebrated its centennial in 1972, there remained little vacant land. Wilmette had become a mature suburb, one whose coming challenges would be more of preservation and revitalization than of growth.
- **Climate:** The climate is warm during summer when temperatures tend to be in the 70s and very cold during winter when temperatures tend to be in the 20s. The warmest month of the year is July with an average maximum temperature of 83 °F, while the coldest month of the year is January with an average minimum temperature of 15 °F. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 20 °F and fairly limited during winter with an average difference of 17 °F. The annual average precipitation in Wilmette is 36 inches. Rainfall in is fairly evenly distributed throughout the year. The wettest month of the year is August with an average rainfall of 4.4 inches.
- **Governing Body Format:** The Village of Wilmette is governed by a Board of Trustees and a Village President (Mayor). This form of government combines the political leadership of elected officials with the professional administrative experience of an appointed Village Manager. This body of Government will assume the responsibility for the adoption and implementation of this plan. The six members of the Village Board of Trustees are elected at-large for staggered, four-

year terms. By serving “at-large”, each trustee represents the entire Village. There is a two-term limit for members of the Village Board and the Village President. Wilmette operates 12 Village departments including the Cable Department, Community Development Department, Engineering Department, Finance Department, Fire Department, Health Department, Historical Museum, Law Department, Police Department, Public Works Department, Water Plant, and Village Manager’s Office.

- **Development Trends:** Over the past several years, the Village has conducted several business development studies to ensure a business development strategy that is successful over time. The Village applied for and received planning assistance from an Urban Land Institute (ULI) Technical Assistance Panel. The goal was to create a plan to “revitalize and reinvigorate” Wilmette’s Village Center and West Village Center. The ULI Technical Assistance Panel consisted of a group of real estate development experts, urban planning and design professionals, and community development leaders. This group evaluated qualitative and quantitative information related to the community’s vision and statement of need and offered objective recommendations to help the Village reach its goal.

## 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.

<b>TABLE: LEGAL AND REGULATORY CAPABILITY</b>					
	<b>Local Authority</b>	<b>State or Federal Prohibitions</b>	<b>Other Jurisdictional Authority</b>	<b>State Mandated</b>	<b>Comments</b>
<b>Codes, Ordinances &amp; Requirements</b>					
Building Code	Yes	No	No	Yes	In accordance with Public Act 096-0704, Illinois has adopted the IBC as its state Building Code Municipal Code adopted: 2010
Zonings	Yes	No	No	Yes	(65 ILCS 5/) Illinois Municipal Code. Updated Municipal Code adopted: 2014
Subdivisions	Yes	No	No	No	Municipal Code adopted: 2013
Storm water Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Cook County Watershed Ordinance effective 5/1/14, thereafter to be

					adopted by the Village.
Post Disaster Recovery (partial plan)	Yes	No	No	No	Municipal Code adopted: 2204-O56, and Village’s Emergency Management Plan
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	No	No	No	No	The Village applied for and received planning assistance from an Urban Land Institute (ULI) Technical Assistance Panel.
Site Plan Review	Yes	No	No	No	Insert Municipal Code adopted: 2013
Public Health and Safety	Yes	No	Yes	Yes	Cook County Board of Health. Municipal Code adopted: 2003
Environmental Protection	No	No	No	No	Cook County
<b>Planning Documents</b>					
General or Comprehensive Plan	Yes	No	No	No	2000 Comprehensive Plan, ordinance approved adopting plan on 11/2/2000
<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 stormwater impacts are

					managed by MWRD. The Village lies within the Cook County watershed planning area of MWRD’s comprehensive Stormwater Master Planning Program
Capital Improvement Plan	Yes	No	No	No	
<i>What types of capital facilities does the plan address?</i>					Repairs, Improvements & Replacement
<i>How often is the plan revised/updated?</i>					As needed
Habitat Conservation Plan	No	No		No	
Economic Development Plan	No	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook County 6b program.
Shoreline Management Plan	No	No	No	No	
<b>Response/Recovery Planning</b>					
Comprehensive Emergency Management Plan	Yes	No	Yes	Yes	Village of Wilmette Emergency Mgmt. Plan



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

<b>TABLE: FISCAL CAPABILITY</b>	
<b>Financial Resources</b>	<b>Accessible or Eligible to Use?</b>
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

<b>TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY</b>		
<b>Staff/Personnel Resources</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
Planners or engineers with knowledge of land development and land management practices	Yes	Community Development & Engineering Departments
Engineers or professionals trained in building or infrastructure construction practices	Yes	Community Development & Engineering Departments

Planners or engineers with an understanding of natural hazards	Yes	Engineering and Public Works Departments
Staff with training in benefit/cost analysis	Yes	Village Manager’s Office & Finance Department
Surveyors	No	
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Police and Fire Departments
Grant writers	No	

<b>TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE</b>	
What department is responsible for floodplain management in your jurisdiction?	Engineering Department
Who is your jurisdiction’s floodplain administrator? (department/position)	Engineering/Director of Engineering
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	10/24/00
When was the most recent Community Assistance Visit or Community Assistance Contact?	Have not had a Community Assistance Visit
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes, FEMA maps
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, but researching this option

**TABLE: COMMUNITY CLASSIFICATIONS**

	<b>Participating?</b>	<b>Classification</b>	<b>Date Classified</b>
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	N/A
Public Protection/ISO	Yes	2	2010
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	Yes	N/A	Annual

## 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: 15
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

<b>TABLE: NATURAL HAZARD EVENTS</b>			
<b>Type of Event</b>	<b>FEMA Disaster Number (if applicable)</b>	<b>Date</b>	<b>Preliminary Damage Assessment</b>
Severe Weather	-	6/14/2017	\$100,000 in property damage.
Severe Weather	-	6/14/2017	-
Lightning	-	7/18/2015	\$15,000 in property damage.
Illinois Severe Weather	-	12/2013 - 2/2014	-
Illinois Severe Storms/ Winds/Flooding	DR-4116	4/26/2013	-
Illinois Severe Winter Storm/Snowstorm	DR-1960	1/31/2011	-
Illinois Severe Storms/Flooding	DR-1935	9/13/2008	-
Illinois Severe Storms/Flooding	DR-1729	8/20/2007	-
Illinois Flooding	DR-1188	8/16/1997	-
Illinois Flooding	DR-1129	7/17/1996	-
Illinois Severe Storms/Flooding	DR-997	4/13/1993	-
Illinois Severe Storms/Flooding	DR-798	8/13/1987	-

Illinois Severe Storms/Flooding	DR-776	9/21/1986	-
Illinois Severe Storms/Flooding	DR-643	6/30/1981	-
Illinois Severe Storms/Flooding	DR-509	6/18/1976	-
Illinois Severe Storms/Flooding	DR-373	4/26/1973	-

### 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:** Previously, we have experienced overland and street and basement flooding, mostly due to our over-taxed sewer and stormwater system.

**Extreme Heat:** Due to our several extended care facilities, a power outage and generator failure caused by extreme heat would require evacuation.

**High Winds:** High winds pose a specific impact to our Village because our community has a large number of old large trees that will fall on homes, cars, and power lines during high winds events. In addition, most of our community has overhead power lines that lead to further potential impacts.

**Blizzards:** Similar to the jurisdiction-specific impacts of high winds, we are vulnerable to blizzards because of our large, mature trees and overhead power lines.

**Ice Storms:** Similar to the jurisdiction-specific impacts of high winds and blizzards, we are vulnerable to ice storms because of our large, mature trees and overhead power lines.

## 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.

<b>TABLE: HAZARD RISK RANKING</b>		
<b>Rank</b>	<b>Hazard Type</b>	<b>Risk Rating Score (Probability x Impact)</b>
1	Severe Weather	51
2	Severe Winter Weather	51
3	Flood*	12
4	Earthquake	32
5	Tornado	27
6	Drought	2
7	Dam Failure	0

\*Although the rating scores for earthquakes and tornados are higher than flooding, due to the village's consistent problems with flooding during adverse weather conditions, flooding was moved higher on the hazard risk ranking.

## 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)
<b>Action W5.1</b> —Conduct a separate storm sewer study.						
Completed	Flood, Severe Weather	1, 2, 4, 6, 9, 10	Village of Wilmette, Engineering Department	\$265,000; Medium	Bond	Complete
<b>Action W5.2</b> —Conduct Princeton Place/Kenilworth Gardens study (flooding problems).						
Completed	Flood, Severe Weather	1, 2, 4, 9, 10	Village of Wilmette, Engineering Department	\$250,000; Medium	Bond	Complete
<b>Action W5.3</b> —Construction of the Neighborhood Storage Improvement Project (NSIP) to alleviate flooding problems.						
Ongoing	Flood, Severe Weather	3, 13	Village of Wilmette	TBD	TBD	TBD

<b>Action W5.4</b> —Maintain and replace municipality's tornado warning systems (as needed).						
Completed	Tornado, Severe Weather	1, 5	Village of Wilmette	\$22,000; High	Grants, General Revenue, Bond	Short- and Long-term
<b>Action W5.5</b> —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or development.						
Ongoing	All	3, 4, 6, 10, 13	Community Development and Engineering Departments	Low	General Fund	Short-term
<b>Action W5.6</b> —Complete sewer capacity improvements.						
Complete	Flood, Severe Weather	1, 2, 9	Village of Wilmette, Engineering Department	Medium	Bond	Complete
<b>Action W5.7</b> —Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	DHSEM, Village of Wilmette	Low	General Fund	Short-term
<b>Action W5.8</b> —Continue to support the countywide actions identified in this plan.						
Ongoing	All	All	Village of Wilmette	Low	General Fund	Short- and Long-term
<b>Action W5.9</b> —Develop an Inflow and Infiltration (I/I) program based on the adopted MWRD 2018 Watershed Management Ordinance which includes I/I on private property.						
Ongoing	Flood, Severe Weather	3, 4, 9, 13	Village of Wilmette	TBD	TBD	TBD
<b>Action W5.10</b> —Complete manhole rehabilitation.						
Complete	Flood, Severe Weather	1, 2, 9	Village of Wilmette, Engineering Department	\$1,900,000; High	Bond	Complete
<b>Action W5.11</b> —Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.						
Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Village of Wilmette	Low	General Fund	Long-term



<b>Action W5.12</b> —Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.						
Ongoing	Flood	4, 6, 9	Village of Wilmette	Low	General Fund	Short-term and Ongoing
<b>Action W5.13</b> —Where feasible, implement a program to record high water marks following high-water events						
Ongoing	Flood, Severe Weather	3, 6, 9	Village of Wilmette	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
<b>Action W5.14</b> —Designate snow routes and critical road crossings.						
Completed	All	1, 5	Village of Wilmette Public Works	\$250,000; Medium	Budget	Short- and Long-term
<b>Action W5.15</b> —Purchase and publically promote the Smart 911 application.						
New	Epidemic or Pandemic, Hazardous Materials Incident, Nuclear Power Plant Incident	5, 6	Police and Fire Department	Low	General Fund	Ongoing
<b>Action W5.16</b> —Utilize GIS software to identify vulnerable residents that require special attention in the event of a disaster, severe weather, or power outage.						
New	All	12, 13	Village of Wilmette	Low	TBD	Short-term
(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	6	High	Medium	Yes	Yes	No	Medium
2	5	High	High	Yes	Yes	No	Medium
3	2	TBD	TBD	TBD	TBD	TBD	TBD
4	2	High	Medium	Yes	Yes	Yes	High
5	5	Medium	Low	Yes	No	Yes	High
6	3	High	Medium	Yes	Yes	No	Medium
7	3	Medium	Low	Yes	Yes	Yes	High
8	13	Medium	Low	Yes	No	Yes	High
9	4	TBD	TBD	TBD	TBD	TBD	TBD
10	3	High	High	Yes	Yes	No	Medium
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	2	High	Medium	Yes	No	Yes	High
15	2	Medium	Low	Yes	No	Yes	High
16	2	High	Low	Yes	TBD	TBD	High

(a) See Chapter 1 for explanation of priorities.

### New Mitigation Actions

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

**Action W-5.15**

<b>Mitigation Action</b>	Purchase and publically promote the Smart 911 application.
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	Village of Wilmette
<b>Lead Agency/Organization</b>	Police and Fire Department
<b>Supporting Agencies/Organizations</b>	
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Develop, improve, and protect systems that provide early warnings, emergency response communications, and evacuation procedures.</li> <li>• Use the best available data, science and technologies to educate the public and to improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types and community development patterns, and the measures needed to protect life safety.</li> </ul>
<b>Potential Funding Source</b>	General Fund
<b>Estimated Cost</b>	3 year contract - \$25,700
<b>Benefits (loss avoided)</b>	Be able to notify residents of impending disasters and ID people with special needs.
<b>Projected Completion Date</b>	Ongoing
<b>Priority and Level of Importance (Low, Medium, High)</b>	High Priority
<b>Benefit Analysis (Low, Medium, High)</b>	Medium—Property 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.
<b>Cost Analysis (Low, Medium, High)</b>	Low—The project could be funded under the existing budget. The project is part of an ongoing existing program.
<b>Actual Completion Date</b>	

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

**Action W-5.16**

<b>Mitigation Action</b>	Utilize GIS software to identify vulnerable residents that require special attention in the event of a disaster, severe weather, or power outage.
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	Village of Wilmette
<b>Lead Agency/Organization</b>	Village of Wilmette
<b>Supporting Agencies/Organizations</b>	
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <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> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>• Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.</li> <li>• Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.</li> </ul>
<b>Potential Funding Source</b>	TBD
<b>Estimated Cost</b>	TBD
<b>Benefits (loss avoided)</b>	TBD
<b>Projected Completion Date</b>	TBD
<b>Priority and Level of Importance (Low, Medium, High)</b>	High
<b>Benefit Analysis (Low, Medium, High)</b>	High
<b>Cost Analysis (Low, Medium, High)</b>	Low
<b>Actual Completion Date</b>	

<b>Recommended Mitigation Action/Implementation Plan and Project Description</b>	
<b>Action/Implementation Plan and Project Description:</b>	Working with local community groups and senior centers to identify residents that need power for medical equipment.

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

Mitigated Hazards	
X	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	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 W-5.3**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.3	Construction of the Neighborhood Storage Improvement Project (NSIP) to alleviate flooding problems.	
Status Description: Yes	The project will be conducted in three phases to construct three underground detention structures and relief sewers to improve effectiveness of the storm sewer systems and help alleviate flooding problems.	O
<p style="text-align: center;"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.5**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.5	Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or development.	
Status Description: Yes	This is ongoing, and is considered in order to mitigate the harm to the public from natural disasters.	O
<p style="text-align: center;"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.7**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.7	Actively participate in the plan maintenance strategy identified in this plan.	
Status Description: Yes	Village staff participates in the maintenance strategies outlined in this plan.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action W-5.8**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.8	Continue to support the countywide actions identified in this plan.	
Status Description: Yes	In February 2018, Wilmette adopted the 2018 version of the Metropolitan Water Reclamation District's Watershed Management Ordinance. The ordinance requires local agencies tributary to MWRD to adopt an inflow and infiltration (I/I) program by July of 2019. This includes developing a program to address I/I on private property.	O
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action W-5.9**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.9	Develop a inflow and Infiltration (I/I) program based on the adopted MWRD 2018 Watershed Management Ordinance which includes I/I on private property.	
Status Description: Yes	In April 2018, the Village adopted the 2018 MWRD ordinance.	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.11**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.11	Consider participation in incentive-based programs such as the Community Rating System, Tree City and Storm Ready.	
Status Description: Yes	Village participates in Tree City USA and implemented a RainReady Wilmette program with CNT in 2019.	O
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.12**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.12	Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information of floodplain requirements and impacts.	
Status Description: Yes	The Village is in compliance with the NFIP.	O
<b>Completion status legend:</b> <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action W-5.13**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.13	Where feasible, implement a program to record high water marks following high-water events.	
Status Description: Yes	When staff is available, high water marks are observed and recorded during storm events.	O
<b>Completion status legend:</b> <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

### Completed Mitigation Actions

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

**Action W-5.1**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.1	Conduct a separate storm sewer study.	
Status Description: Yes	Completed in 2015 and 2018, further studies will be conducted as needed.	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.2**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.2	Conduct Princeton Place/Kenilworth Gardens study (flooding problems).	
Status Description: Yes	This process is on-going. We are continuing to work on identifying and removing sources of inflow and infiltration from the sanitary sewers to reduce surcharging which leads to sewer backups. In 2018, Stanec consulting was contracted to conducted the study, the results will be tied to the NSIP project listed below. In addition, the village will incorporate MWRD 2018 plan for addressing I/I.	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.4**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.4	Maintain and replace municipality's tornado warning systems (as needed).	
Status Description: Yes	The tornado warning systems undergo annual inspections and maintenance on an annual basis. In 2018, Federal Signal, Inc. replaced two outdoor public warning sirens.	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.6**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.6	Complete sewer capacity improvements.	
Status Description: Yes	This project was completed in 2014/2015. In 2018, Stanec was contracted to conduct the separate storm sewer system study for the neighborhood storage option.	C
<p align="center"><b>Completion status legend:</b>  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action W-5.10**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.10	Complete manhole rehabilitation.	
Status Description: Yes	This project was completed in 2014, however repairs and replacements are made as needed.	C
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		

**Action W-5.14**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# W-5.14	Designate snow routes and critical road crossings.	
Status Description: No	This plan was completed, and will be modified as needed to ensure the roads are passable during adverse weather conditions.	C
<p align="center"><b>Completion status legend:</b>                      N = New    O = Action Ongoing toward Completion                      C = Project Completed    R = Want Removed from Annex    X = No Action Taken</p>		



## 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

WILMETTE EXISTING CONDITIONS	
2017 Population	27,393
Total Assessed Value of Structures and Contents	\$5,932,856,157
Area in 100-Year Floodplain	122.00 acres
Area in 500-Year Floodplain	618.77 acres
Number of Critical Facilities	60

HAZARD EXPOSURE IN WILMETTE						
	Number Exposed		Value Exposed to Hazard		Total	% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents		
<b>Dam Failure</b>						
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%
<b>Flood</b>						
100-Year	4,567	1,305	\$826,065,000	\$412,380,000	\$1,238,445,000	-

500-Year	10,600	2,650	TBD	\$837,400,000	TBD	-
<b>Tornado</b>						
100-Year	—	—	\$460,096,766	\$263,444,758	<b>\$723,541,5245</b>	12.20%
500-Year	—	—	\$1,466,831,935	\$910,425,484	<b>\$2,377,257,419</b>	40.07%

Flood figures are based on a recent flood analysis conducted for the Village.

<b>ESTIMATED PROPERTY DAMAGE VALUES IN WILMETTE</b>				
	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	Total	
<b>Dam Failure</b>				
Buffalo Creek	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #2	\$0	\$0	<b>\$0</b>	0.00%
Touhy	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #3	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #45	\$0	\$0	<b>\$0</b>	0.00%
<b>Earthquake</b>				
1909 Historical Event	\$13,184,266	\$2,270,958	<b>\$15,455,224</b>	0.26%
<b>Flood</b>				
10-Year	\$0	\$0	<b>\$0</b>	0.00%
100-Year	\$326,053	\$134,956	<b>\$461,009</b>	0.01%
500-Year	\$30,592,675	\$13,142,176	<b>\$43,734,852</b>	0.74%

<b>Tornado</b>				
100-Year	\$466,009,677	\$26,344,476	<b>\$72,354,152</b>	1.22%
500-Year	\$214,157,462	\$132,922,121	<b>\$347,079,583</b>	5.85%

# Hazard Mapping





