

Harwood Heights

Hazard Mitigation Plan 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: 1947

Current Population: The 2020 U.S. Census population was 9,064. The 2022 U.S. Census estimate indicated the population was 8,722.

Population Growth: The overall population has increased 3.67 percent between 2018 and 2022.

Location and Description: The Village of Harwood Heights is located in Cook County, Illinois and is an inner ring of Chicago with population of 8,661 people. The Village is located approximately 11 miles north-west of the Chicago's Loop and bordered by the Village of Norridge and City of Chicago. Harwood Heights residents and business owners benefit from access to CTA rail and bus services, as well as Harlem and Lawrence Ave., which are two regional commercial corridors. The Village is in close proximity to O'Hare International airport and I-90 and I-94.

Brief History: Little by little the land that began as prairie and then as farmland slowly gave way to a growth of residential homes and businesses. On the corner of Gunnison and Harlem sprang a peony farm owned by Judge Heckel. More businesses opened along Harlem Avenue and slowly the farms that once brought forth great bounty began to disappear. Many of the residents that moved here after the war were dissatisfied with the conditions of the area. Most of the streets turned into rivers of mud after a rain, there was no police protection, and the water situation grew to the unbearable point. Citizen groups talked of trying to get the city of Chicago to annex the area. One of these citizens, Herbert Huening, a World War II Navy Veteran who moved to a home on Oconto Avenue after the war, took up the challenge and began talking to City officials. After several trips to City Hall it became evident that Chicago had no desire to take in a small cluster of homes just outside its border. It was then that Huening seriously began looking into the prospect of incorporating and starting its own Village.

Climate: The climate of the Village of Harwood Heights and the Chicago area is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and humid summers; pleasant autumns; and cold winters. Annual precipitation is average, and reaches its lowest points in the months of January and February, and peaks in the months of May and June. Winter proves quite variable. Seasonal snowfall in the city has ranged from 9 – 85 inches. The daily average temperature in January at Midway Airport is 24.8 °F (–4.0 °C), and temperatures often stay below freezing for several consecutive days or even weeks in January and February. Temperatures drop to or below 0 °F (–18 °C) on 5.5 nights annually at Midway and 8.2 nights at O’Hare. Spring in the Chicago area is perhaps the city’s wettest and unpredictable season. Winter like conditions can persist well into April and even occasionally into May. Thunderstorms are especially prevalent in the springtime as the city’s lakeside location makes it a center of conflicts between large volumes of warmer and colder air, triggering many kinds of severe weather. Temperatures vary tremendously in the springtime; March is the month with the greatest span between the record highs and lows. On a typical summer day, humidity is usually moderately high and temperatures ordinarily reach anywhere between 78 and 92 °F (26 and 33 °C). The extreme heat that the Chicago area is capable of experiencing during the height of the summer season can persist into the autumn season. Temperatures have reached 100 degrees high and subzero lows below –18 °C. Fall can bring heavy thunderstorms, many of which are capable of producing flooding. The average first accumulating snow occurs around Nov 19.

Governing Body Format: The Village of Harwood Heights is governed by a seven-member Village Council, including 6 trustees and a Mayor. This body of government will assume responsibility for the adoption and implementation of this plan. Departments for the Village are Public Works, Police Department, District Fire Department, Building, Zoning, Plumbing, and Health Departments.

Development Trends: The Village of Harwood Heights completed a Comprehensive plan in 2011. The Village is landlocked by neighboring municipalities, there are several sites ripe for redeveloping when the timing is ideal to update land use and transportation and maximize community and economic development for the Village.

Changes in Community Priorities: There have been no significant changes in priority regarding the hazards that could potentially impact the community or changes in priority regarding resilience.

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 *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	Other Jurisdictional	State Mandated	Comments

		Prohibitions	Authority		
Codes, Ordinances & Requirements					
Building Code	Yes	No	No	Yes	In accordance with Public Act 096-0704, Illinois has adopted the IBC as its state Building Code Ordinance 12-33 2009 IBC 11/12
Zonings	Yes	No	No	Yes	(65 ILCS 5/) Illinois Municipal Code. Ordinance 11-46 Home Rule 17-04 12/11
Subdivisions	Yes	No	No	No	Ordinance 11-46 Home Rule 17-04 12/11 Ties into Zoning
Stormwater Management	No	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA.
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	8/11
Site Plan Review	No	No	No	No	
Public Health and Safety	Yes	Yes	Yes	Yes	Cook County Board of Health. We use State Book (Food Service Sanitation Code 2002
Environmental Protection	Yes	No	No	No	

Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	8/11
<i>Is the plan equipped to provide integration to this mitigation plan?</i>					Unknown
Floodplain or Basin Plan	No	No	No	No	The Village lies within Lower Des Plaines and North Branch of Chicago River watershed planning area of MWRD's comprehensive Stormwater Master Planning Program. Effective May 1, 2014, amended May 2, 2024.
Stormwater Plan	Yes	No	MWRD	No	Regional stormwater impacts are managed by MWRD. The Village lies within Lower Des Plaines and North Branch of Chicago River 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>					Facilities, Utilities, Roads, Vehicles.
<i>How often is the plan revised/updated?</i>					Annually
Habitat Conservation Plan	Yes	No	State	No	IBC (IECC) Adopted 11/12

Economic Development Plan	Yes	No	Yes	Yes	The Village doesn't have Economic Development. The Village uses Comprehensive plan that was adopted 08/11
Shoreline Management Plan	No	No	No	No	
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	No	Yes	Yes	LEOP 2004
Threat and Hazard Identification and Risk Assessment	Yes	No	Yes	No	LEOP 2004 Cook County EMRS Preparing THIRA
Terrorism Plan	Yes	No	Yes	Yes	LEOP 2004
Post-Disaster Recovery Plan	Yes	No	Yes	Yes	LEOP 2004
Continuity of Operations Plan	Yes	No	Yes	No	LEOP 2004
Public Health Plans	Yes	No	Yes	No	LEOP 2004

TABLE: FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	Home Rule

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Building Dept. Houseal Lavigne Associates

Engineers or professionals trained in building or infrastructure construction practices	Yes	Building Dept. BNF Technical Engineering
Planners or engineers with an understanding of natural hazards	Yes	Public Works. Cristofer Burke Engineering
Staff with training in benefit/cost analysis	Yes	Finance
Surveyors	Yes	Outsource to Clark Dietz engineering
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
Grant writers	Yes	Outsource to Suzanne Chrys Consultant

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	Public Works
Who is your jurisdiction's floodplain administrator? (department/position)	Public Works foreman
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	Effective May 1, 2014; amended May 2, 2024 (Watershed Management Ordinance)
When was the most recent Community Assistance Visit or Community Assistance Contact?	N/A
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	No, FEMA advised us that we are not in the flood plain.
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

NFIP Participation Activities

Maintaining compliance under the NFIP is an important component of flood risk reduction. All planning partners that participate in the NFIP have identified actions to maintain their compliance and good standing. Cook County entered the NFIP on April 15, 1981. Structures permitted or built in the County before then are called “pre-FIRM” structures, and structures built afterwards are called “post-FIRM.” The insurance rate is different for the two types of structures. The effective date for the current countywide FIRM is August 19, 2008. This map is a DFIRM (digital flood insurance rate map). The communities in Cook County that participate in the NFIP are shown in **Table: NFIP Participating Communities in Cook County** in **Volume I** of the Cook County MJ-HMP.

The NFIP makes federally-backed flood insurance available to homeowners, renters, and business owners in participating communities. The communities in Cook County that participate in the NFIP and their "Policies in Force," "Total Coverage," and "Total Written Premiums" are shown in **Table: Cook County Flood Insurance Policies** in **Volume I** of the Cook County MJ-HMP.

The following are NFIP-related activities completed by our community:

- Our staff provide the following services: permit reviews, GIS, inspections, engineering capability.
- Our community teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars.

Our community is not in a flood plain.

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Unknown		
Public Protection/ISO	Yes	ISO 3	2011
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	No	N/A	N/A

Opportunities to Expand and Improve Capabilities

Opportunities to expand and improve capabilities include developing a strategy to identify and set aside municipal funds to assist with the 25% cost match for FEMA HMA mitigation grants. Due to the technical expertise needed to develop grant applications and benefit cost analyses for FEMA HMA grants, the municipality has a need for qualified grant writers to assist in the development and management of these grants.

Plan Integration

The capability assessment describes opportunities to "link" or integrate the mitigation plan into other planning mechanisms. The process and mechanism to identify opportunities to integrate the Cook County MJ-HMP into other planning mechanisms will occur during the Annual Update Process and be reflected in the Jurisdictional Annual Report each year. Specific plan integration opportunities will include:

- The goals and actions of the Hazard Mitigation Plan will be considered in the next capital improvement planning process.
- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the Comprehensive Plan.
- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the jurisdiction's land use plans, zoning, and subdivision codes.

Emergency Plan Integration:

Cook County EMRS is supporting communities to develop and update their respective Emergency Operations Plans, Continuity of Operations Plan/Continuity of Government Plan, and Recovery Plan in 2024. This is an ongoing countywide initiative and is being implemented in all municipalities.

Emergency Operations Plan (EOP)

An EOP template was created for all municipalities. The 2019 Cook County MJ-HMP and the hazards in the mitigation plan have been integrated into the Situation and Assumptions section of the EOP. Within that section, the natural hazards based on the 2019 MJ-HMP were added in the Initial Analysis and Assessment and Identification of Hazards section of the EOP. The hazards in the 2019 plan and the 2024 MJ-HMP did not change apart from adding wildfires for the Forest Preserve and unincorporated areas of the County. Future updates of the EOP will take into consideration any additional new natural hazards that are added to subsequent updates to the MJ-HMP.

Continuity of Operations Plan (COOP)

The Continuity of Operations Plan (COOP) for the municipality includes a Situation section that is based on the 2019 Cook County MJ-HMP jurisdictional annex, and specifically the hazards identified in the annex. The COOP-specific risk assessment is hazard-specific and based on likelihood of occurrence and severity of impact.

Recovery Plan

The goals of the Recovery Plan were developed to align with the 2019 Cook County MJ-HMP, and specifically prioritizes the responsibility of officials under this plan to save lives, protect property, relieve human suffering, sustain survivors, repair essential facilities, restore services, and protect the environment. The plan acknowledges that hazard mitigation is an important priority and consideration during the rebuilding process.

Jurisdiction-Specific Natural Hazard Event History

The information provided below was solicited from the jurisdiction and supported by NOAA and other relevant data sources.

The *Natural Hazard Events Table* lists all past occurrences of natural hazards within the jurisdiction. Repetitive flood loss records are as follows:

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

Federal Disasters Declared

Disaster Declaration Number	Date Declared	Event
DR-227	4/25/1967	Tornado
DR-351	9/4/1972	Flood
DR-373	4/26/1973	Flood
DR-509	6/18/1976	Severe Storm(s)

DR-643	6/30/1981	Severe Storm(s)
DR-776	10/7/1986	Flood
DR-798	8/21/1987	Flood
DR-997	7/9/1993	Flood
DR-1129	7/25/1996	Severe Storm(s)
DR-1188	9/17/1997	Severe Storm(s)
DR-1729	9/25/2007	Severe Storm(s)
DR-1800	10/3/2008	Severe Storm(s)
DR-1935	8/19/2010	Severe Storm(s)
DR-1960	3/17/2011	Snow
EM-3068	1/16/1979	Snow
EM-3134	1/8/1999	Snow
EM-3161	1/17/2001	Snow
EM-3230	9/7/2005	Hurricane – Katrina Evacuation
EM-3435	3/13/2020	Biological
DR-4116	5/10/2013	Flood
DR-4489	3/26/2020	Biological
DR-4728	8/15/2023	Severe Storm(s)
DR-4749	11/20/2023	Flood

State Disaster Declarations

Date Declared	Event
7/26/2010	Severe Storms, High Winds, Torrential Rain
1/31/2011	Winter Weather
4/25/2011 5/25/2011	High Wind, Tornadoes, Torrential Rain
4/18/2013 4/20/2013 4/21/2013 4/25/2013 4/30/2013	Severe Storms, Heavy Rainfall, Flooding, Straight-line Winds
1/6/2014	Heavy Snowfall, Frigid Temperatures
7/12/2017 7/14/2017	Thunderstorms, Heavy Rainfall, Flooding
1/29/2019	Winter Storm
2/6/2020	Severe Storms
3/12/2020 – present (reissued monthly)	COVID-19
2/16/2021	Winter Storms
2/1/2022	Winter Storms
8/1/2022 (reissued monthly through 10/28/2022)	Monkeypox

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment/ Event Narrative
Severe Weather	-	4/25/2016	-
Flooding	FEMA-4116-DR	4/13	-

Hail		5/30/2012	Quarter to ping-pong ball size hail was reported near Harwood Heights
Severe Weather		6/21/2011	In Harwood Heights, every block had either broken trees or tree limbs. Some streets were completely blocked by fallen trees. A few cars were damaged by fallen trees. One car was damaged by a live powerline when it started a fire. Numerous other powerlines were blown down.
Blizzard	FEMA-1960-DR	2/11	-
Flooding	FEMA-1935-DR	7/10	-
Flooding and Severe Weather		6/19/2009	Street flooding
Flooding	FEMA-1800-DR	9/08	-
Flooding	FEMA-1729-DR	8/07	-
Katrina Evacuation	FEMA-3230-EM	9/05	-
Blizzard	FEMA-3161-EM	12/00	-
Blizzard	FEMA-3134-EM	1/99	-
Flooding	FEMA-1188-DR	8/97	-
Flooding	FEMA-1129-DR	7/96	-
Flooding	FEMA-997-DR	7/93	-
Flooding	FEMA-789-DR	8/87	-
Flooding	FEMA-776-DR	10/86	-
Flooding	FEMA-643-DR	6/81	-
Blizzard	FEMA-3068-EM	1/79	-
Flooding	FEMA-509-DR	6/76	-
Flooding	FEMA-373-DR	4/73	-
Flooding	FEMA-373 DR	9/72	-

Jurisdiction-Specific Hazards: Vulnerabilities and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2024 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: Harwood Heights has two (2) areas that flood about nine (9) blocks of each side of town, including Oriole Ave and Newcastle Ave. The Town also has two (2) box culverts to support flood mitigation efforts, but they are insufficiently large, leading houses and cars to experience flooding. In addition, flooding in the Town's industrial area causes area-wide shutdowns and interior building damage. In Harwood Heights, runoff generated from the densely urbanized area exceeds the capacity of the local sewers under routine storm conditions, and far exceeds their capacity under extreme events. Flood risk in Harwood Heights takes two primary forms: (a) Structure flooding resulting from excessive local ponding in depressional areas (b) Basement backups resulting from surcharging in the sewer network

Severe Weather: In 2012, numerous large hail reports were received from the near-north side of Chicago. The largest report was of golfball size hail near the intersection of Milwaukee Avenue and Addison Street. Quarter to ping-pong ball size hail was reported near Harwood Heights, Portage Park, Old Irving Park, and just east of North Park. In 2013, A potent upper level disturbance interacted with a very warm and moist air mass, leading to the development of severe thunderstorms. Widespread large hail and damaging winds occurred, as well as several tornadoes. In 2016, Quarter size hail was reported near the intersection of Irving Park and Pulaski Roads.

High Wind: In 2006, twelve-inch diameter tree limbs were blown down. In 2011, a tree approximately two feet in diameter fell onto a moving vehicle causing heavy damage to the car. The incident occurred near the 4900 block of North Austin Avenue. No injuries were reported. In 2011, every block of Harwood Heights had either broken trees or tree limbs. Some streets were completely blocked by fallen trees. A few cars were damaged by fallen trees. One car was damaged by a live powerline when it started a fire. Numerous other powerlines were blown down.

Indicator	Number	Percent
Families in poverty	240	4.5%
People with disabilities	2,164	11.2%
People over 65 years	4,314	21.9%
People under 5 years	1,129	5.7%
People of color	4,419	22.4%
Black	228	1.2%
Native American	13	0.1%
Hispanic	2,554	12.9%
Difficulty with English	1,911	10.3%
Households with no car	759	10.1%
Mobile homes	9	0.1%

Data are from the U.S. Census Bureau, American Community Survey. See methods for more information.

The community evaluated whether vulnerability, and subsequently the potential impacts, in hazard-prone areas had increased, decreased, or remained the same for each natural hazard identified in this Hazard Mitigation Plan. Climate change, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard area or is not built to the updated building codes, it may increase the community's vulnerability to future hazards and disasters. On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics were taken into consideration when assessing development trends.

Jurisdiction-Specific Climate Change Vulnerability and Impacts

The table below outlines if climate change, as assessed by the local planning team, has increased or decreased the municipality's vulnerability/exposure, and thereby the potential impacts, to each natural hazard over the past five (5) years (**Current Vulnerability**), and the effect of climate change in the future probability of occurrence and impacts (**Future Vulnerability**) from each natural hazard.

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	
Drought	
Earthquake	
Flood (Riverine, Urban, Shoreline)	

Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	
Tornado	
Wildfire (Wildfire Smoke)	

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	
Drought	
Earthquake	
Flood (Riverine, Urban, Shoreline)	
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	
Tornado	
Wildfire (Wildfire Smoke)	

Jurisdiction-Specific Changes (or Expected Changes) in Development Trends in Hazard-Prone Areas

The table below outlines if development, as assessed by the local planning team, over the past five (5) years (**Current Vulnerability**) has increased or decreased the jurisdiction's vulnerability/exposure, and thereby the potential impacts, to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts (**Future Vulnerability**) from these natural hazards.

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	
Drought	
Earthquake	
Flood (Riverine, Urban, Shoreline)	
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	
Tornado	
Wildfire (Wildfire Smoke)	

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	
Drought	
Earthquake	
Flood (Riverine, Urban, Shoreline)	
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	

Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	
Tornado	
Wildfire (Wildfire Smoke)	

Our community does not anticipate future major assets may be exposed or vulnerable to any of the natural hazards identified in this Hazard Mitigation Plan. Any new assets (e.g., new construction in hazard prone areas) will be constructed to adhere to the latest building codes and standards, and mitigation to protect them from identified and anticipated hazards, especially those that are expected to increase due to climate change.

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
1	Severe Weather
2	Severe Winter Weather
3	Flood
4	Earthquake
5	Tornado
6	Drought
7	Dam Failure

New Mitigation Actions

The following are new mitigation actions created during the 2024 update.

Harwood Heights did not have any new mitigation actions identified during the 2024 update.

Ongoing Mitigation Actions

During the 2024 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

Action H-3.1

Mitigation Action #H - 3.1: Maintain the minimum NFIP participation requirements for communities with no mapped Special Flood Hazard Area.					
Lead Agency/Department Organization: Village of Harwood Heights Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term and ongoing	Hazard(s) Mitigated: Flooding
Year Initiated		2014			
Applicable Jurisdiction		Village of Harwood Heights			
Applicable Goal		1, 3, 5			
Applicable Objective		4, 6, 9			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					

Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O
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Action H-3.2

Mitigation Action #H - 3.2: Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with properties with exposure to repetitive losses as a priority.					
Lead Agency/Department Organization: Village of Harwood Heights Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: BRIC, HMGP	Estimated Projected Completion Date: Long-term, depending on funding	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Harwood Heights				
Applicable Goal	1, 3				
Applicable Objective	7, 13				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project	O				

Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	
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Action H-3.3

Mitigation Action #H - 3.3: Integrate the hazard mitigation plan into other plans, ordinances, or programs to dictate land uses within the jurisdiction.					
Lead Agency/Department Organization: Village of Harwood Heights Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		Village of Harwood Heights			
Applicable Goal		1, 2, 3, 4, 6			
Applicable Objective		1, 6, 3, 4, 8, 10			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action H-3.4

Mitigation Action #H - 3.4: Continue development of the Storm Water Study that captures perishable data (i.e., high water marks, preliminary damage estimates, and damage photos) after significant hazard events to support future updates to the risk assessment of this plan.					
Lead Agency/Department Organization: Village of Harwood Heights Administration, MWRD	Supporting Agencies/ Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund, FEMA Public Assistance (PA)	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Harwood Heights				
Applicable Goal	1, 2, 3, 6				
Applicable Objective	3, 6, 9				
Cost Analysis (Low, Medium, High)	Medium				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O				

Action H-3.5

Mitigation Action #H - 3.5: Integrate Village's Comprehensive Plan with Storm Water Study.					
Lead Agency/Department Organization: Village of Harwood Heights Administration, MWRD	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: Flooding, Severe Weather
Year Initiated	2014				
Applicable Jurisdiction	Village of Harwood Heights				
Applicable Goal	1, 2, 3, 6				
Applicable Objective	3, 4, 6, 10				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O				

Action H-3.6

Mitigation Action #H - 3.6: Look to update the Water System, Pumping Station, and Sewer System.					
Lead Agency/Department Organization:	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source:	Estimated Projected	Hazard(s) Mitigated:

Village of Harwood Heights Administration			State Revolving Fund Loan, HMGP, BRIC	Completion Date: Short-term	Flooding, Severe Weather
Year Initiated	2014				
Applicable Jurisdiction	Village of Harwood Heights				
Applicable Goal	2, 3, 6				
Applicable Objective	2, 6				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O Water pumps have been replaced / action is still ongoing				

Action H-3.7

Mitigation Action #H - 3.7: Continue to support the countywide actions identified in this plan.					
Lead Agency/Department Organization: Village of Harwood Heights Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Harwood Heights				

Applicable Goal	All
Applicable Objective	All
Cost Analysis (Low, Medium, High)	Low
Priority and Level of Importance (Low, Medium, High)	High
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action H-3.8

Mitigation Action #H - 3.8: Actively participate in the plan maintenance strategy identified in this plan.					
Lead Agency/Department Organization: Village of Harwood Heights Administration	Supporting Agencies/ Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	Village of Harwood Heights				
Applicable Goal	1, 2, 3, 6				
Applicable Objective	3, 4, 6				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				

Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action H-3.9

Mitigation Action #H - 3.9: To expand two box culverts to be able to hold more water so the village residents won't get water through their downstairs windows or floor drain. Plus reduce car damage due to flooding streets.					
Lead Agency/Department Organization: Village of Harwood Heights Administration	Supporting Agencies/ Organizations:	Estimated Cost: High	Potential Funding Source: MWRD, Harwood Heights General Fund	Estimated Projected Completion Date: Ongoing; Timeline dependent on funding.	Hazard(s) Mitigated: Flooding, Severe Weather
Year Initiated	2019				
Applicable Jurisdiction	Village of Harwood Heights				
Applicable Goal	2				
Applicable Objective	9				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Less flooding homes, less damage to homes, cars and pets.				

Action/Implementation Plan and Project Description:	
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O One box culvert has been expanded second one is not funded to date

Completed Actions

Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.

Completed Action Items
No completed items at this time.

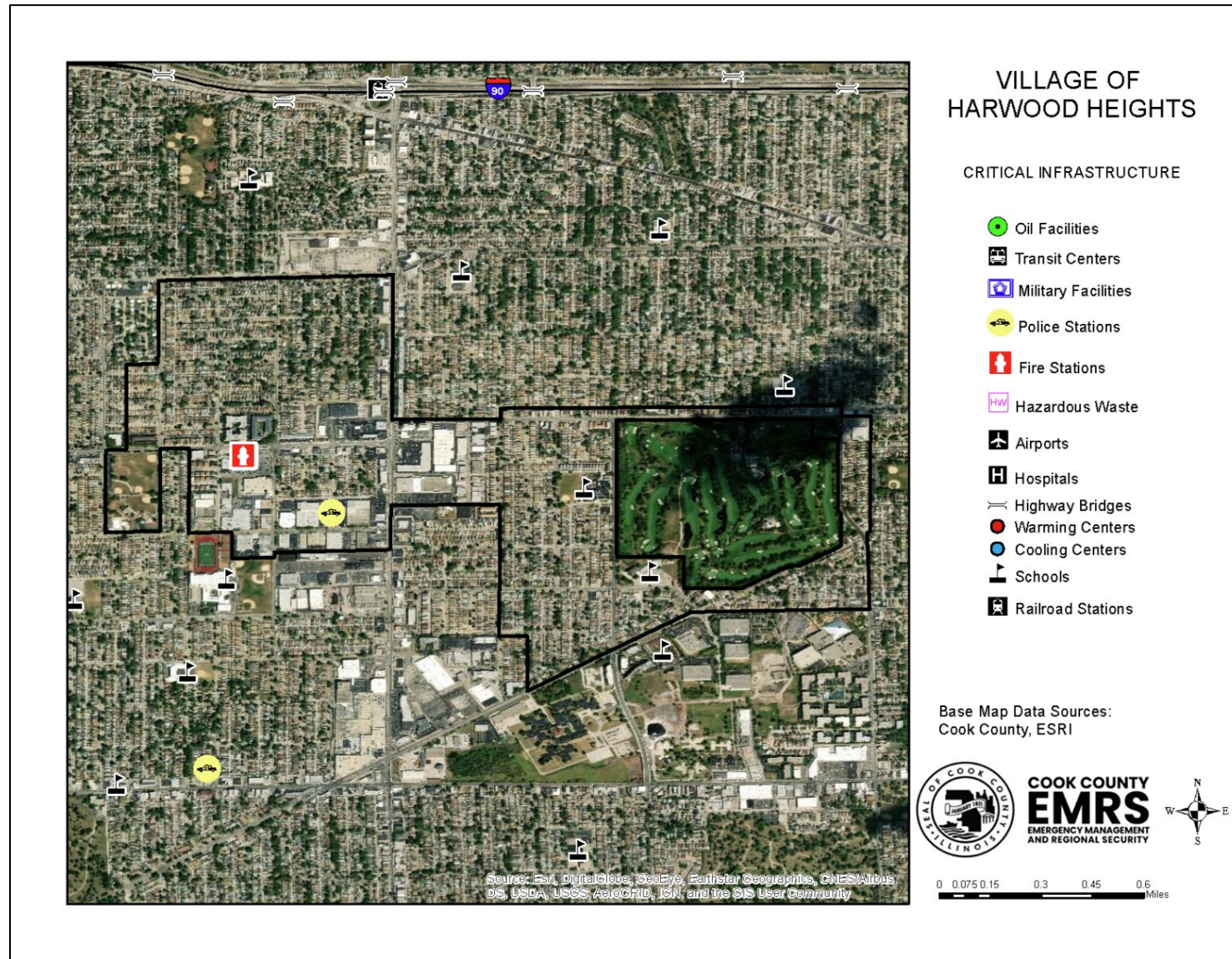
Future Needs to Better Understand Risk/Vulnerability

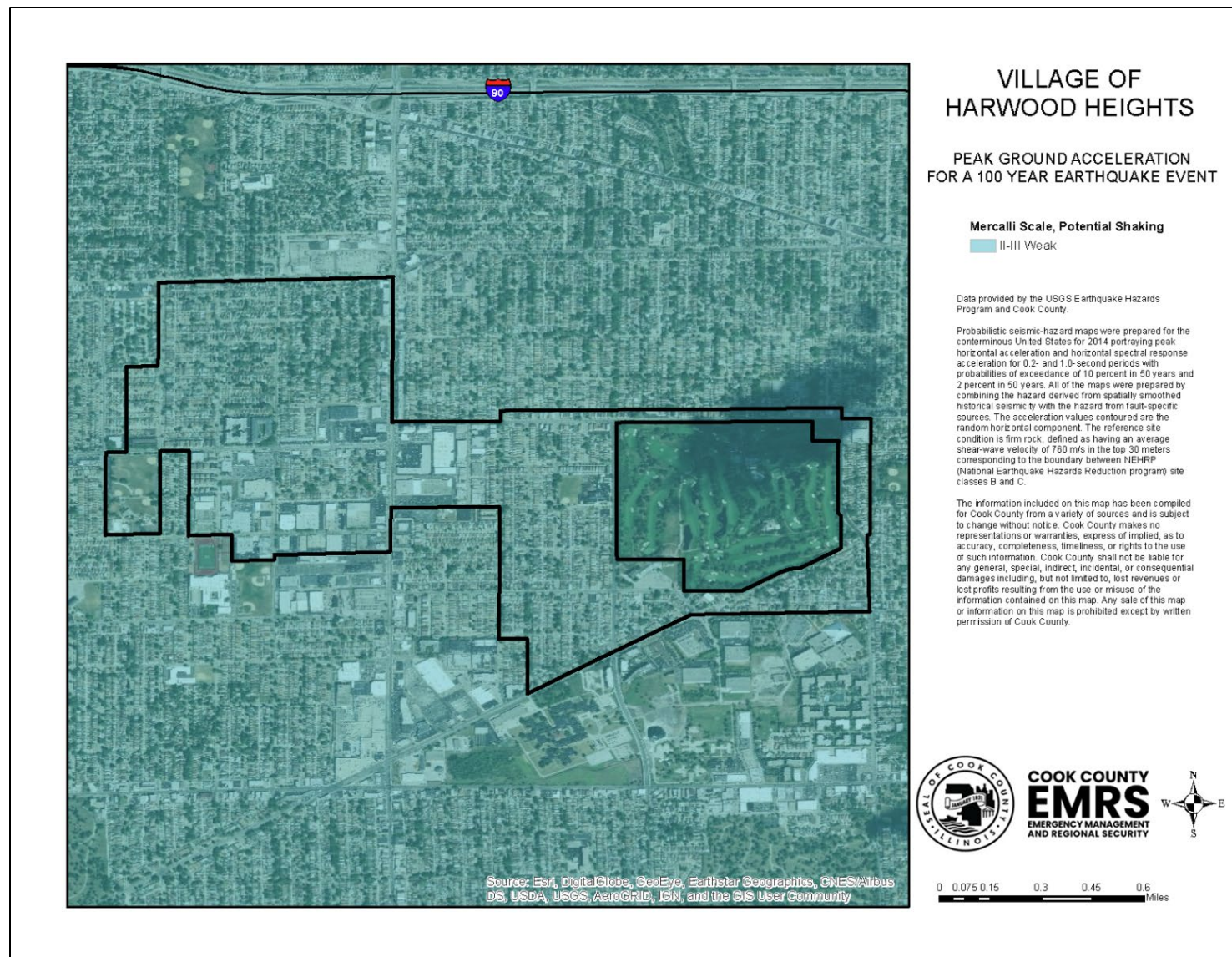
No needs have been identified at this time.

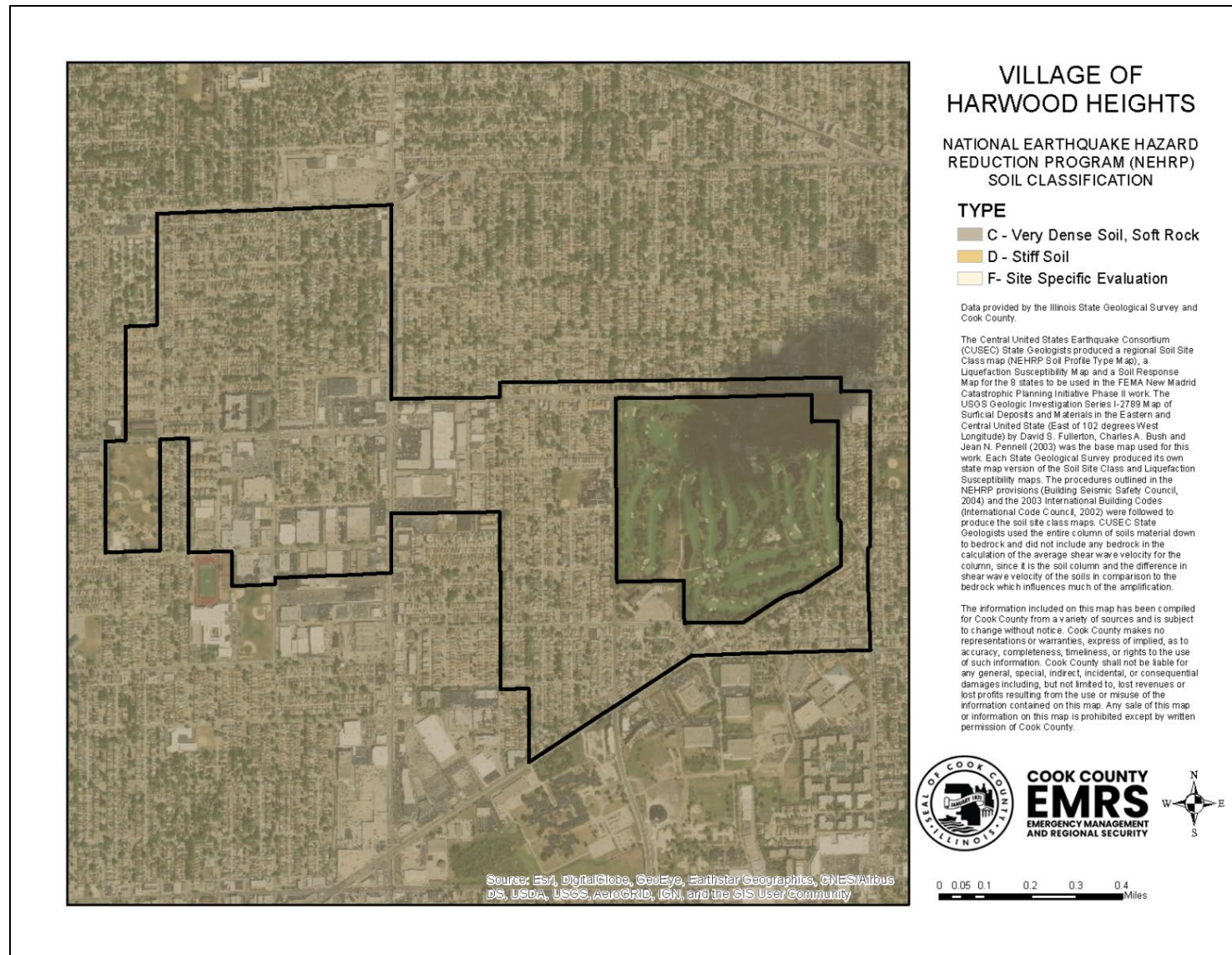
Additional Comments

No additional comments at this time.

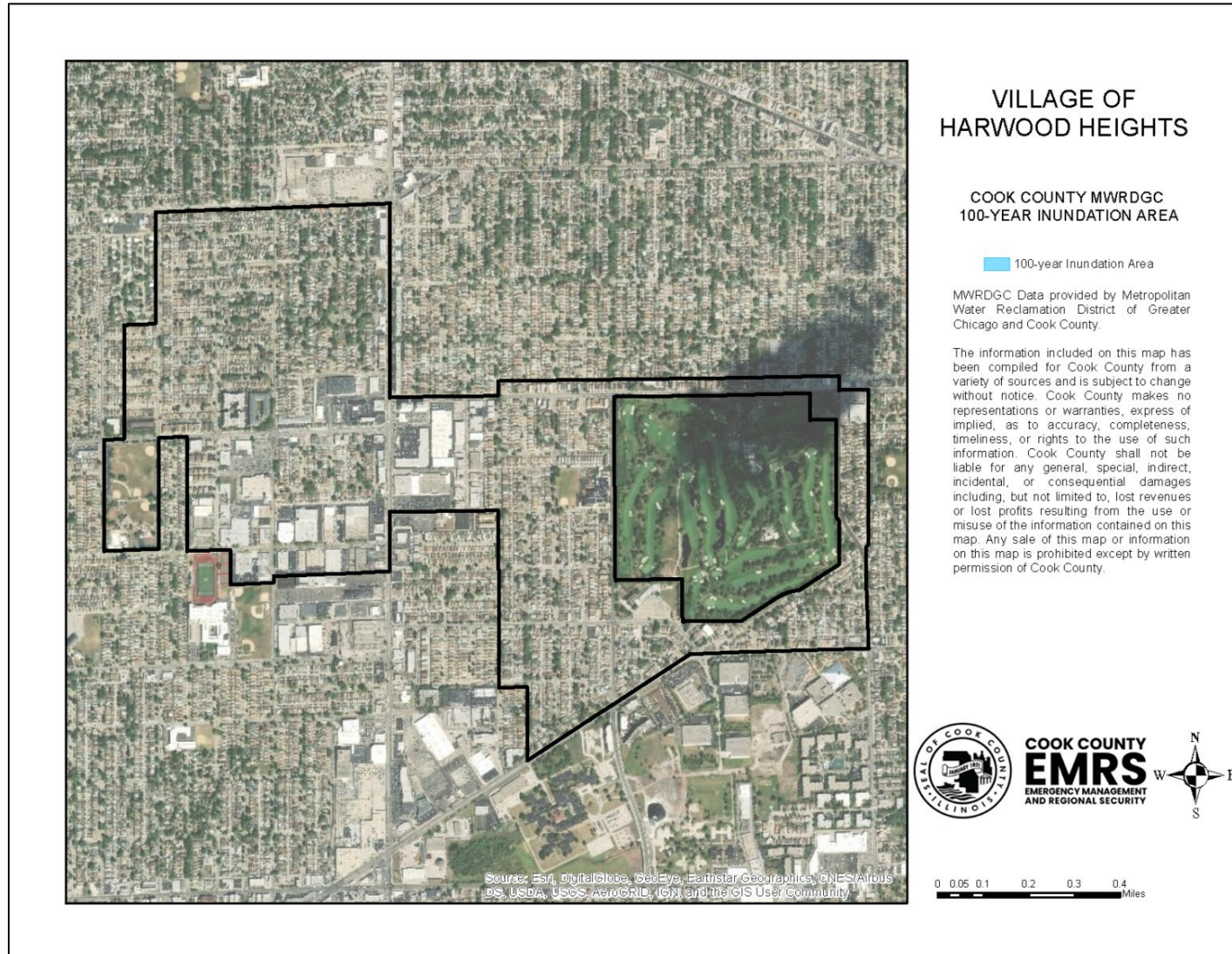
Hazard Mapping

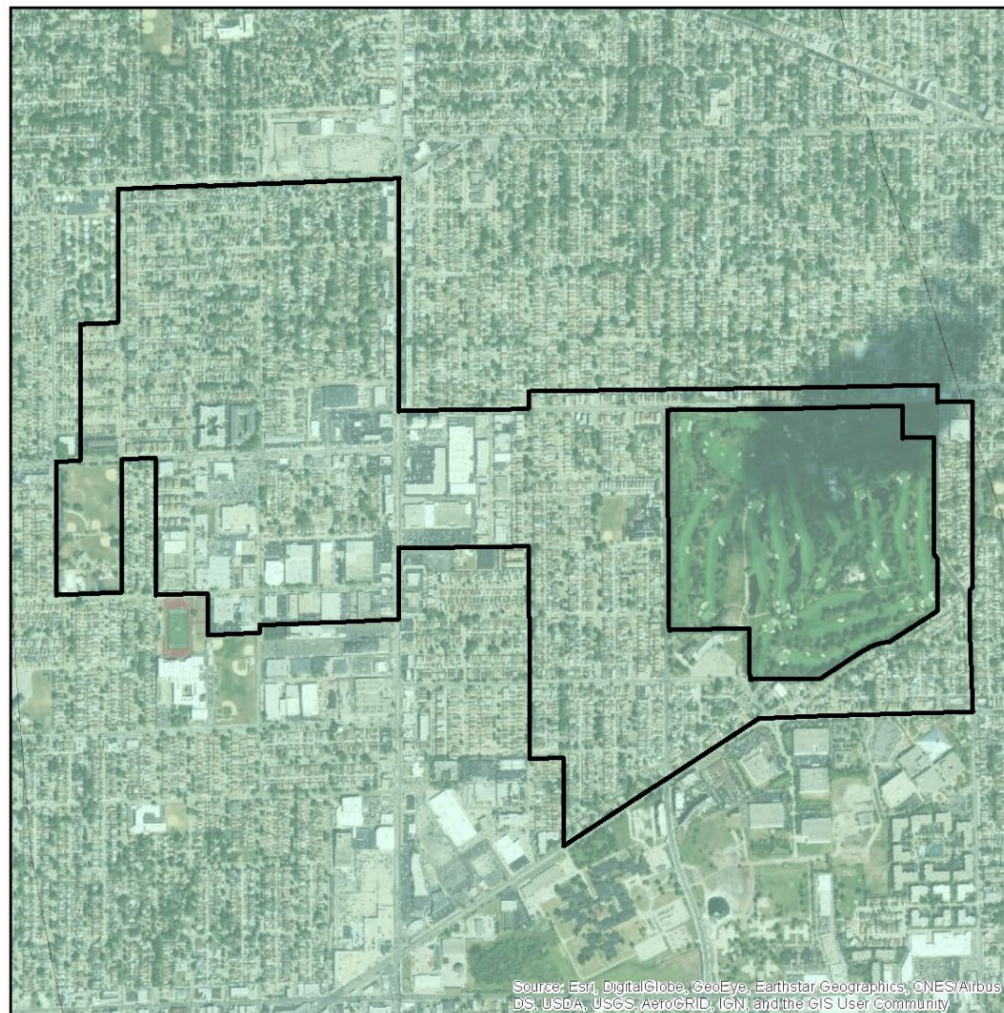






DISCLAIMER: The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from <http://www.fema.gov>.





VILLAGE OF HARWOOD HEIGHTS

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

- high
- low
- very low

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

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2769 Map of Surficial Deposits and Materials in the Eastern and Central United States (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Pennell (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.

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



COOK COUNTY
EMRS
EMERGENCY MANAGEMENT
AND REGIONAL SECURITY



0 0.05 0.1 0.2 0.3 0.4
Miles

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

