

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

Harwood Heights 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
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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 2018 US Census population estimate for Harwood Heights was 8,413.
- **Population Growth:** The growth of the town may depend on developers who would incorporate mix use on empty parcels. From 1990 to 2010, there was steady growth in Harwood Heights, from 2010 to 2016, there was a slight downturn in population by 0.7 percent.
- **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.

Capability Assessment

The assessment of the jurisdiction’s legal and regulatory capabilities is presented in the *Legal and Regulatory Capability Table* below. The assessment of the jurisdiction’s fiscal capabilities is presented in the *Fiscal Capability Table* below. The assessment of the jurisdiction’s administrative and technical capabilities is presented in the *Administrative and Technical Capability Table* below. Information on the community’s National Flood Insurance Program (NFIP) compliance is presented in the *National Flood Insurance Program Compliance Table* below. Classifications under various community mitigation programs are presented in the *Community Classifications Table* below.

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Yes	No	No	Yes	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 linkage to this mitigation plan?</i>					Unknown
Floodplain or Basin Plan	No	No	No	No	
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 DHSEM 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?	N/A

When was the most recent Community Assistance Visit or Community Assistance Contact?	N/A
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	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

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

Jurisdiction-Specific Natural Hazard Event

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

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

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

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Severe Weather	-	4/25/2016	-
Flooding	FEMA-4116-DR	4/13	-
Blizzard	FEMA-1960-DR	2/11	-
Flooding	FEMA-1935-DR	7/10	-
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 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: Harwood Heights has two (2) areas that flood about nine (9) blocks of each side of town. 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.

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.

Hazard Risk Ranking

The *Hazard Risk Ranking Table* below presents the ranking of the hazards of concern. Hazard area extent and location maps are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

TABLE: HAZARD RISK RANKING		
Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Severe Weather	54
2	Severe Winter Weather	54
3	Flood	45
4	Earthquake	32
5	Tornado	18
6	Drought	4
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/Projection Completion Date (a)
Action H3.1 —Continue to main the minimum NFIP participation requirements for communities with no mapped Special Flood Hazard Area.						
Ongoing	Flood	4, 6, 9	Village of Harwood Heights	Low	General Fund	Short-term and ongoing
Action H3.2 —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.						
Ongoing	All	7, 13	Village of Harwood Heights	High	FEMA Hazard Mitigation Grants	Long-term, depending on funding
Action H3.3 —Integrate the hazard mitigation plan into other plans, ordinances, or programs to dictate land uses within the jurisdiction.						
Ongoing	All	1, 6, 3, 4, 8, 10	Village of Harwood Heights	Low	General Fund	Short-term

Action H3.4 —Completed Storm Water Study that capture perishable data (ie high water marks, preliminary damage estimates, and damage photos) after significant hazard events to support future updates to the risk assessment of this plan.						
Ongoing	All	3, 6, 9	Village of Harwood Heights	Medium	General Fund, FEMA Grant Funds (Public Assistance)	Long-term
Action H3.5 —Integrate Village’s Comprehensive Plan with Storm Water Study.						
Ongoing	Flood, Severe Weather	3, 4, 6, 10	Village of Harwood Heights	Low	General Fund	Short-term
Action H3.6 —Look to update Water System, Pumping Station, and Sewer System.						
Ongoing	Flood, Severe Weather	2, 6	Village of Harwood Heights	High	State Revolving Fund Loan	Short-term
Action H3.7 —Continue to support the countywide actions identified in this plan.						
Ongoing	All	All	Village of Harwood Heights	Low	General Fund	Short-term
Action H3.8 —Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	Village of Harwood Heights	Low	General Fund	Short-term
Action H3.9 —Expand 2 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.						
New	Flood, Severe Weather	9	Village of Harwood Heights	High	FEMA, MWRD, Harwood Heights	
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	3	Medium	Low	Yes	No	Yes	High
2	2	High	High	Yes	Yes	No	Medium
3	6	Medium	Low	Yes	No	Yes	High
4	3	Medium	Medium	Yes	Yes	No	Medium
5	4	Medium	Low	Yes	No	Yes	High
6	2	High	High	Yes	Yes	No	Medium
7	13	Medium	Low	Yes	Yes	Yes	High
8	3	Medium	Low	Yes	No	Yes	High
9	1	TBD	TBD	TBD	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 H-3.9

Mitigation Action	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.
Year Initiated	2019
Applicable Jurisdiction	Village of Harwood Heights
Lead Agency/Organization	TBD
Supporting Agencies/Organizations	TBD
Applicable Goal	<ul style="list-style-type: none"> Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.
Applicable Objective	<ul style="list-style-type: none"> Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.
Potential Funding Source	FEMA, MWRD, Harwood Heights
Estimated Cost	Less flooding homes, less damage to homes, cars and pets.
Benefits (loss avoided)	
Projected Completion Date	Need funding, we are shovel ready
Priority and Level of Importance (Low, Medium, High)	High
Benefit Analysis (Low, Medium, High)	TBD
Cost Analysis (Low, Medium, High)	TBD
Actual Completion Date	TBD

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
X	Flood
	Extreme Heat
X	Lightning
	Hail
	Fog
X	High Wind
X	Snow
X	Blizzard
X	Extreme Cold
X	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	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 H-3.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-3.1	Continue to main the minimum NFIP participation requirements for communities with no mapped Special Flood Hazard Area (SFHA).	
Status Description: No		O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action H-3.2

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# 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.	
Status Description: No		X
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action H-3.3

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-3.3	Integrate the hazard mitigation plain into other plans, ordinances or programs to dictate land uses within the jurisdiction	
Status Description: No		O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action H-3.4

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-3.4	Completed Storm Water Study that capture perishable data (ie high water marks, preliminary damage estimates, and damage photos) after significant hazard events to support future updates to the risk assessment of this plan	
Status Description: No		O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action H-3.5

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-3.5	Intergrade our Comprehensive Plan with Storm Water Study.	
Status Description: No		O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action H-3.6

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-3.6	Looking to updating our Water System, Pumping Station and Sewer system	
Status Description: Yes		O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action H-3.7

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-3.7	Continue to support the countrywide actions identified in this plan	
Status Description: Yes		O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action H-3.8

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# H-3.8	Actively participate in the plan maintenance strategy identified in this plan	
Status Description: Yes		O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Completed Mitigation Actions

Harwood Heights has no completed actions 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

HAZUS-MH Risk Assessment Results

HARWOOD HEIGHTS EXISTING CONDITIONS	
2010 Population	8,612
Total Assessed Value of Structures and Contents	\$2,051,346,357
Area in 100-Year Floodplain	0.00 acres
Area in 500-Year Floodplain	0.00 acres
Number of Critical Facilities	15

HAZARD EXPOSURE IN HARWOOD HEIGHTS						
	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	0	0	\$0	\$0	\$0	0.0%
500-Year	0	0	\$0	\$0	\$0	0.0%

Tornado						
100-Year	—	—	\$267,677,515	\$170,354,835	\$438,032,350	21.35%
500-Year	—	—	\$698,464,925	\$557,308,361	\$1,255,773,286	61.22%

ESTIMATED PROPERTY DAMAGE VALUES IN HARWOOD HEIGHTS				
	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	\$5,093,677	\$1,088,327	\$6,182,005	0.30%
Flood				
10-Year	\$0	\$0	\$0	0.00%
100-Year	\$0	\$0	\$0	0.00%
500-Year	\$0	\$0	\$0	0.00%
Tornado				
100-Year	\$26,767,751	\$17,035,484	\$43,803,235	2.14%

500-Year	\$101,975,879	\$81,367,021	\$183,342,900	8.94%
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Hazard Mapping





