

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

Des Plaines Annex

FINAL

July 2019

Prepared for:



Cook County
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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:** Des Plaines was incorporated in 1869
- **Current Population:** The US Census 2018 estimate for Des Plaines was 36,240.
- **Population Growth:** Between 2010 and 2018, the population of Des Plaines remained relatively stable. However, by the year 2021, the City anticipates an increase of about 10,000 residents. New condominium and housing developments are currently being constructed and will drive this population growth.
- **Location and Description:** The City of Des Plaines is located in Cook County, approximately 19 miles northwest of downtown Chicago. Neighboring communities include Mount Prospect, Park Ridge, Elk Grove Village, and Chicago, as well as unincorporated lands to the northeast in Maine Township and the southwest in Elk Grove Township. Des Plaines shares its southern border with O'Hare International Airport.
- **History:** The Des Plaines area was occupied by Potawatomi, Ottawa, and Chippewa Indians until the Treaty of Chicago in 1833. It was then settled by farmers from New England, New York, and Germany. The settlers found a very flat area that had been leveled by several glaciers in eons past. The main topographical features were flat, wet, prairie and the Des Plaines River. Because of the flat terrain and water loving prairie grasses, much of the rain that fell on the area stayed there. The river was more of a wide grassy swale, not the deeper cut channel seen today. To farm and build houses, the land had to be drained artificially with manmade ditches. The present site of Des Plaines was determined by early settler Socrates Rand who built a grist mill on the Des Plaines River. In the 1850's, the railroad came through, connecting Chicago to central Wisconsin. Trains would stop near the mill to take on water. The Chicago and North Western Railroad, named its station "Des Plaines." In 1869, the Village of Des Plaines was incorporated. In 1870, the federal census noted that the Village had 800 residents. The town grew as a farming and railroad community until the mid 20th Century when it became more and more tied to Chicago as a suburb. In 1925, a referendum passed to adopt the city form of government. In the 50 years from 1940 to 1990, the population increased from 9,000 to over 50,000. Industry and business grew, too, giving the City a diversified economy. While the railroad is still central to Des Plaines, the City is served by two Interstate highways and is adjacent to O'Hare International Airport.
- **Climate:** The City of Des Plaines experiences a continental climate characterized by warm summers as well as cold and dry winters. Summer months have an average temperature of 72 degrees Fahrenheit, which tends to peak in July with average daily high temperatures of 84 degrees Fahrenheit. Winter months have an average temperature of 26 degrees Fahrenheit and typically drop significantly in January, when daily low temperatures average 16.5 degrees Fahrenheit. The City receives an average of 37 inches of rain and 37 inches of snowfall per year. Spring and summer months (May through August) tend to experience the most accumulated rainfall.
- **Governing Body Format:** The City of Des Plaines is a home rule municipality with a managerial form of government. Flood and other natural hazard issues are addressed by the City's Incident Management Team (Mayor, City Manager, and all department heads) and the Emergency Management Coordinator. The City's Emergency Management Program is one of five Illinois

Emergency Management Agency (IEMA)- accredited emergency management agencies in Cook County.

- **Development Trends:** Des Plaines participates in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program and the Community Rating System (CRS). The City regulates all development within the Special Flood Hazard Area (SFHA). The City is within the corporate limits of the Metropolitan Water Reclamation District of Greater Chicago (MWRD). The MWRD is responsible for wastewater treatment, and also has the authority to regulate development that impacts storm water within Cook County.
- **Retail and Commercial Activity:** The City of Des Plaines has seen considerable housing and commercial redevelopment over the past 10 years. The City's major downtown redevelopment project, Metropolitan Square, was fully built and reached full tax valuation in 2008. This mixed-use redevelopment features 142 condominium/loft residences; 114,000 square feet of retail space; another 27,000 square feet of office space; a 471-car public parking garage, and civic streetscape improvements.

There are currently over \$650 million in projects going on in Des Plaines. These projects include the following; 113 luxury apartment development adjacent to the Downtown Des Plaines Metra Station Platform, the southeast corner of Ellinwood Street and Graceland Avenue will experience a redevelopment renaissance with a brand-new, luxury mixed-use development, Lexington Homes is adding 58 new townhomes in downtown Des Plaines, and a 236-unit apartment community is currently under construction at the northwest corner of Golf Road and East River Road which is immediately west of I-294. Additionally, Wheels Inc., the world's largest vehicle fleet management company, announced a major renovation and expansion of their sprawling 18-acre campus that is abutting the Des Plaines River. The intersection of Mount Prospect Road and Algonquin Road will see a major transformation as Vetter Pharma purchased the 18-acre property that encompassed the Salvation Army. Also, the property that formerly housed Hart Schaffner Marx will now encompass a \$75,000,000 data center facility and a new Fairfield Inn and Suites by Marriott will complement the existing Wyndham Hotel and Longhorn Steakhouse at the northwest corner of Touhy Ave and Mannheim Road.

- **Industrial Activity:** The ongoing expansion of Chicago O'Hare International Airport and its siting of the new air cargo terminal adjacent to the City of Des Plaines have fostered a major air freight industry cluster within the industrial quadrant of the City of Des Plaines. Integrated freight forwarding companies, Forward Air, DB Schenker, and Nippon Express have completed terminals within the City of Des Plaines, and the City's TIF District No. 3 is 100% built out with the development of facilities for Hellman, Coasters, Caterpillar Logistics and Bombardier companies. An additional site for air freight development has been acquired and cleared by International Airport Centers.

The City Council supported the issuance of three Cook County 6B property tax classifications to attract new investments in its manufacturing sector. Two of the three businesses will substantially rehabilitate its' newly acquired buildings and provide approximately 45 new jobs.

Of note, Charles Equipment Energy Systems anticipates generating approximately \$10,000 to \$50,000 in sales tax annually. The third 6B applicant will construct a brand new \$6.83 million state-of-the art LEED certified structure in the center of 21 neighboring manufacturing buildings. Its location was heavily influenced based on its proximity to the forthcoming \$200 million Chicago O'Hare International Airport Northeast Cargo Center project.

- Entertainment: The 10th and final Illinois gaming license was issued based upon the City of Des Plaines' agreement with Midwest Gaming and Entertainment for a 1,200-seat casino, parking structure, hotel, and restaurant complex on a 20-plus acre site in the far southeast corner of the City. Since Rivers Casino opened in July 2011, it has had the highest adjusted gross receipts of any casino in the State (averaging over \$30,000,000 per month) since opening. The City has a tax revenue sharing agreement in place with Midwest Gaming in which \$10,000,000 of the gaming tax revenues generated from the Casino are sent to the State of Illinois and 40% of the remaining revenues are shared with 10 distressed communities named in the original agreement. Further redevelopment of adjacent commercial properties is anticipated as well. The Casino is one of the City's newest principal employers with nearly 1,400 positions. Additional community benefits include an October 2013 donation of \$150,000 to the Des Plaines Oakton Community College campus for scholarships.

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	Des Plaines Municipal Code adopted: 2015
Zonings	Yes	No	No	Yes	Des Plaines Municipal Code adopted: 2015
Subdivisions	Yes	No	No	No	Des Plaines Municipal Code adopted: 2015
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA
Post Disaster Recovery	Yes	No	No	No	Adopted: 2017
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act
Growth Management	Yes	No	No	No	2019 Comprehensive Plan
Site Plan Review	Yes	No	No	No	Des Plaines Municipal Code adopted: 2015
Public Health and Safety	No	No	Yes	Yes	Cook County Board of Health
Environmental Protection	No	No	No	No	–
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	Des Plaines Comprehensive Plan 2019
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					Yes
Floodplain or Basin Plan	No	No	No	No	–
Stormwater Plan	Yes	No	Yes	No	Regional storm-water impacts are managed by MWRD. The City lies within Des Plaines River watershed planning

					area of MWRD’s comprehensive Storm- water Master Planning Program
Capital Improvement Plan	Yes	No	No	No	January 2018
<i>What types of capital facilities does the plan address?</i>					Street, alley, sidewalk, curb & gutter, water system, drainage, sewer, and streetscape improvements
<i>How often is the plan revised/updated?</i>					Every 4 years
Habitat Conservation Plan	No	No	No	No	–
Economic Development Plan	Yes	No	Yes	Yes	Des Plaines Comprehensive Plan 2019
Shoreline Management Plan	No	No	No	No	–
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	No	No	Yes	Reviewing for June 2019 IEMA Accredited Emergency Management Program
Threat and Hazard Identification and Risk Assessment	Yes	No	No	Yes	Reviewing for June 2019 IEMA Accredited Emergency Management Program
Terrorism Plan	Yes	No	No	Yes	Reviewing for June 2019 IEMA Accredited Emergency Management Program
Post-Disaster Recovery Plan	Yes	No	No	Yes	Reviewing for June 2019 IEMA Accredited Emergency Management Program
Continuity of Operations Plan	Yes	No	Yes	Yes	Reviewing for June 2019 IEMA Accredited Emergency Management Program
Public Health Plans	No	No	Yes	No	Cook County DPH

TABLE: FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	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	Yes

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Community and Economic Development/City of Des Plaines/Director Public Works/City of Des Plaines/Engineering Director
Engineers or professionals trained in building or infrastructure construction practices	Yes	Community and Economic Development/City of Des Plaines/Community Development Staff Engineering/City of Des Plaines/Engineering Staff
Planners or engineers with an understanding of natural hazards	Yes	Community and Economic Development/City of Des Plaines/Community Development Staff Engineering/City of Des Plaines/Engineering Staff
Staff with training in benefit/cost analysis	Yes	Finance Department/City of Des Plaines/Director
Surveyors	Yes	Vendor
Personnel skilled or trained in GIS applications	Yes	Engineering/City of Des Plaines/Engineering Staff
Scientist familiar with natural hazards in local area	No	NA
Emergency manager	Yes	Public Safety/Emergency Management Agency (IEMA Accredited Emergency Management Program)/Executive Coordinator
Grant writers	Yes	Engineering/City of Des Plaines/Engineering Staff

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

What department is responsible for floodplain management in your jurisdiction?	Engineering
Who is your jurisdiction’s floodplain administrator? (department/position)	Engineering/Assistant Director
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date of adoption of your flood damage prevention ordinance?	2015
When was the most recent Community Assistance Visit or Community Assistance Contact?	July 2014
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	Yes

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	Yes	7	2018
Building Code Effectiveness Grading Schedule	Yes	Unknown	Unknown
Public Protection/ISO	Yes	Unknown	Unknown
StormReady	Yes	Storm Ready Community	2010
Tree City USA	Yes	Recognized	1986

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: 245 (10 institutional, 10 commercial, 225 residential)
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 2 (residential)

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Flood	-	5/21/2018	-
Flood	-	10/14/2017	-
Rain and Flood	-	5/4/2017	-
Severe Weather	-	7/18/2015	-
Blizzard	-	2/2/2015	-
Severe Weather	-	9/5/2014	\$75,000 property in damage, 4 injured.
Rain and Flood	-	6/6/2013	-
Rain and Flood	DR-4116	4/19/2013	-
Rain and Flood	-	7/21/2011	-
Severe storm, Flood	-	6/22/2011	-
Blizzard	DR-1960	1/31/2011	-
Flood	-	6/25/2010	-
Thunderstorms and High Winds	-	6/19/2010	-
Rain and Flood	-	5/24/2010	-
Severe Storm, Flood	DR-1935	7/19/2010 - 8/7/2010	-
Rain, Snow and Flood	-	12/26/2009	-
Rain and Flood	-	3/23/2009	-
Rain and Flood	-	3/8/2009	-
Rain and Flood	DR-1800	9/13/2008	-
Rain and Flood	DR-1729	8/23/2007	-
Rain and Flood	-	5/25/2004	-

Jurisdiction-Specific Hazards and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2019 Cook County Multi-Jurisdictional Hazard Mitigation Plan Update. This section only addresses the hazards and their associated impacts that are **relevant** and **unique** to the municipality.

Flood: The City of Des Plaines has experienced flooding in the following areas: Des Plaines River, Weller Creek, Big Bend & River/Oakton Area. We are currently participating in the FEMA Buy-Out program to mitigate the risk of flooding.

Extreme Cold: Senior citizens are particularly vulnerable to extreme cold.

Wind, Hail, and Thunderstorms: Cause significant property and tree damage. While no tornados have previously touched down, high wind and thunderstorms conditions are problematic for the area.

Earthquake: While no fault zones are in the County, Des Plaines Crater fault activity has been reported

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	Flood	54
2	Severe Weather	54
3	Severe Winter Weather	50
4	Tornado	32
5	Dam Failure	8
6	Drought	2
7	Earthquake	0

Mitigation Strategies and Actions

The heart of the mitigation plan is the mitigation strategy, which serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The mitigation strategy describes how the community will accomplish the overall purpose, or mission, of the planning process. In this section, mitigation actions/projects were updated/amended, identified, evaluated, and prioritized. This section is organized as follows:

- New Mitigation Actions - New actions identified during this 2019 update process
- Ongoing Mitigation Actions - Ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.
- Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.

The *Hazard Mitigation Action Plan Matrix Table* below lists the actions that make up the jurisdiction’s hazard mitigation plan. The *Mitigation Strategy Priority Schedule Table* identifies the priority for each action.

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.1—Monitor implementation of City of Des Plaines Hazard Mitigation Actions.							
Ongoing	All	3, 4, 6	City of Des Plaines Mitigation Planning Committee	Low	General Fund	Ongoing	Yes
Action D3.2—Maintain CRS Class 7 status							
Ongoing	Flooding, Severe Weather	3, 4, 5, 6, 7, 9, 10, 11, 13	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Ongoing	Yes
Action D3.3—Incorporate mitigation actions into the City’s comprehensive plan as well as the zoning, subdivision, floodplain, and stormwater management ordinances.							

Ongoing	Flooding, Severe Weather	3, 4, 6	City of Des Plaines Community and Economic Development, Public Works, and Engineering Departments	Low	General Fund	Short- and long-term	Yes
<p>Action D3.4—Maintain full compliance with NFIP and state regulatory requirements. Implement 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.</p>							
Ongoing	Flooding, Severe Weather	4, 6, 9	City of Des Plaines Community and Economic Development Department	Low	General Fund	Short-term and ongoing	Yes
<p>Action D3.5—Actively participate in regional stormwater, flooding and watershed activities, including the MWRD’s stormwater management planning, the Northwest Municipal Conference’s Stormwater Management Committee, and the Upper Des Plaines River Ecosystem Partnership.</p>							
Ongoing	Flooding, Severe Weather	1, 3, 4, 8	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Short-term and ongoing	Yes
<p>Action D3.6—Continue urban forestry programs to maintain trees that threaten utility lines or buildings and cost sharing with residents to replace removed trees</p>							
Ongoing	Flooding, Severe Weather	2, 11, 13	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Short-term and ongoing	Yes
<p>Action D3.7—Continue and expand rebate program for low cost retrofitting projects that protect properties from natural hazards; current program funds surface flooding, drainage, and sewer backup protection measures. Explore expanding program to include other protective measures such as tornado safe rooms, lightning rods, and earthquake protection like strapping water heaters and cabinets to the wall.</p>							
Ongoing	All	2, 11, 13	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Short-term and ongoing	Yes
<p>Action D3.8—Complete planned flood control projects on the Des Plaines River and Farmers Creek.</p>							

Ongoing	Flooding, Severe Weather	2, 9	City of Des Plaines Public Works and Engineering Departments	High	General Fund; FEMA Grant Funds	Short- and long-term	Yes
Action D3.9 —Continue drainage system maintenance.							
Ongoing	Flooding, Severe Weather	2, 9	City of Des Plaines Public Works and Engineering Departments	High	General Fund	Short- and long-term	Yes
Action D3.10 —Review public information projects							
Ongoing	All	2, 5	City of Des Plaines Public Information Office	Low	General Fund	Short- and long-term	Yes
Action D3.11 —Continue updating and communicating public information messages related to hazards.							
Ongoing	All	2, 5	City of Des Plaines Public Information Office	Low	General Fund	Short-term and ongoing	Yes
Action D3.12 —Continue to support the countywide actions identified in this plan.							
Ongoing	All	All	City of Des Plaines	Low	General Fund	Short- and long-term	No
Action D3.13 —Actively participate in the plan maintenance strategy identified in this plan.							
Ongoing	All	3, 4, 6	DHSEM City of Des Plaines	Low	General Fund	Short-term	No
Action D3.14 —Where appropriate, support purchase or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.							
Ongoing	All	7, 13	City of Des Plaines	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)	No
Action D3.15 —Initiate a study to determine if implementing a program to record high water marks following highwater events is feasible.							
Ongoing	Flooding, Severe Weather	3, 6, 9	City of Des Plaines	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term	No
Action D3.16 —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.							
Ongoing	All	3, 4, 6, 10, 13	Des Plaines Engineering Department	Low	General Fund	Ongoing	No
Action D3.17 —Continue implementation of the City’s Capital Improvements Program (CIP).							

Ongoing	All	1, 2, 7	Des Plaines Engineering Department	High	CIP component of general fund (if implemented)	Ongoing	No
Action D3.18 —Implement Des Plaines Flood-Prone Property Acquisitions (Phase I).							
New	Flood	1	MWRD	\$3,949,639; MWRD Contribution: \$949,829	Grants	Long Term	No
Action D3.19 —Implement Flood Control Project on Farmers and Prairie Creeks.							
New	Flood	1	MWRD	\$15,000,000	Local Funds and Grants	Unknown	No
Action D3.20 —Implement Des Plaines Flood-Prone Property Acquisitions (Phase II).							
New	Flood	1	MWRD	\$15,263,444; MWRD Contribution: \$3,625,000	Local Funds and Grants	Long Term	No
Action D3.21 —Implement Green Infrastructure Project.							
New	Flood	1	MWRD	Unknown	Local Funds and Grants	Long Term	No
(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	13	Medium	Low	Yes	No	Yes	High
2	9	Medium	Low	Yes	No	Yes	High
3	3	Medium	Low	Yes	No	Yes	High
4	3	High	Low	Yes	No	Yes	High
5	4	Medium	Low	Yes	No	Yes	High
6	3	Medium	Low	Yes	No	Yes	High
7	3	Medium	Low	Yes	No	Yes	High
8	2	High	High	Yes	Yes	Yes	High
9	2	Medium	Low	Yes	No	Yes	High
10	2	Medium	Low	Yes	No	Yes	High
11	2	Medium	Low	Yes	No	Yes	High
12	13	Medium	Low	Yes	No	Yes	High

13	3	Medium	Low	Yes	No	Yes	High
14	2	High	High	Yes	Yes	No	Medium
15	3	Medium	Medium	Yes	Yes	No	Medium
16	5	Medium	Low	Yes	No	Yes	High
17	3	High	High	Yes	No	No	Medium
18	1	High	High	Yes	Yes	Unknown	High
19	1	High	High	Yes	Yes	Unknown	High
20	1	High	High	Yes	Yes	TBD	High
21	1	High	Unknown	TBD	Yes	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 D3.18

Mitigation Action	Implement Des Plaines Flood-Prone Property Acquisitions (Phase I)
Year Initiated	2019
Applicable Jurisdiction	Des Plaines
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	
Applicable Goal	Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.
Applicable Objective	Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.
Potential Funding Source	Grants
Estimated Cost	\$3,949,639; MWRD Contribution: \$949,829
Benefits (loss avoided)	Reduce exposure to flooding
Projected Completion Date	Long Term
Priority and Level of Importance (Low, Medium, High)	High
Benefit Analysis (Low, Medium, High)	High
Cost Analysis (Low, Medium, High)	High
Actual Completion Date	TBD

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	<p>ID: Des Plaines FPPA Contract: 15-IGA-18 Watershed: Lower Des Plaines Location: Des Plaines, IL</p> <p>Provided local sponsor assistance for Illinois Emergency Management Agency grant project to acquire 13 properties in the Big Bend neighborhood along the Des Plaines River</p>

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

2023		
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Mitigated Hazards	
	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

Action D3.19

Mitigation Action	Implement Flood Control Project on Farmers and Prairie Creeks
Year Initiated	2019
Applicable Jurisdiction	City of Des Plaines
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	City of Des Plaines
Applicable Goal	Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.
Applicable Objective	Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.
Potential Funding Source	Local Funds and Grants
Estimated Cost	\$15,000,000
Benefits (loss avoided)	High
Projected Completion Date	TBD
Priority and Level of Importance (Low, Medium, High)	High
Benefit Analysis (Low, Medium, High)	High
Cost Analysis (Low, Medium, High)	High
Actual Completion Date	TBD

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	ID: FRCR-12 Contract: 12-056-3F, Watershed: Lower Des Plaines Location: Park Ridge, Des Plaines, and Maine Township, IL Provides flood storage and conveyance improvements along Farmers and Prairie Creeks, including channel modifications, detention expansion, diversion sewer construction, and streambank stabilization.

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	Final Design. Intergovernmental agreement being finalized. Acquiring easements.
2020		
2021		
2022		
2023		

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

Action D3.20

Mitigation Action	Implement Des Plaines Flood-Prone Property Acquisitions (Phase II)
Year Initiated	2019
Applicable Jurisdiction	City of Des Plaines
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	City of Des Plaines
Applicable Goal	Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.
Applicable Objective	Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.
Potential Funding Source	MWRD Contribution: \$3,625,000; remainder TBD
Estimated Cost	\$15,263,444; MWRD Contribution: \$3,625,000
Benefits (loss avoided)	Reduce flood exposure
Projected Completion Date	Long Term
Priority and Level of Importance (Low, Medium, High)	High
Benefit Analysis (Low, Medium, High)	High
Cost Analysis (Low, Medium, High)	High
Actual Completion Date	TBD

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	ID: Des Plaines FPPA Contract: 16-IGA-11 Watershed: Lower Des Plaines Location: Des Plaines, IL Purchase 47 flood-prone homes along the Des Plaines River. This is a cost-sharing agreement with the City of Des Plaines.

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	Intergovernmental agreement executed. Acquisitions are ongoing.
2020		
2021		
2022		
2023		

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

Action D3.21

Mitigation Action	Implement Green Infrastructure Project
Year Initiated	2019
Applicable Jurisdiction	City of Des Plaines
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	City of Des Plaines
Applicable Goal	Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.
Applicable Objective	Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.
Potential Funding Source	Grants
Estimated Cost	High
Benefits (loss avoided)	Reduce flood exposure
Projected Completion Date	Long Term
Priority and Level of Importance (Low, Medium, High)	High
Benefit Analysis (Low, Medium, High)	High
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
	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 D3.1

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.1—Monitor implementation of City of Des Plaines Hazard Mitigation Actions.							
Ongoing	All	3, 4, 6	City of Des Plaines Mitigation Planning Committee	Low	General Fund	Ongoing	Yes
(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							

Action D3.2

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.2—Maintain CRS Class 7 status							
Ongoing	Flooding, Severe Weather	3, 4, 5, 6, 7, 9, 10, 11, 13	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Ongoing	Yes
(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.							

Action D3.3

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.3 — Incorporate mitigation actions into the City’s comprehensive plan as well as the zoning, subdivision, floodplain, and stormwater management ordinances.							
Ongoing	Flooding, Severe Weather	3, 4, 6	City of Des Plaines Community and Economic Development, Public Works, and Engineering Departments	Low	General Fund	Short- and long-term	Yes
(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.							

Action D3.4

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.4 — Maintain full compliance with NFIP and state regulatory requirements. Implement 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	Flooding, Severe Weather	4, 6, 9	City of Des Plaines Community and Economic Development Department	Low	General Fund	Short-term and ongoing	Yes
(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.							

Action D3.5

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.5 —Actively participate in regional stormwater, flooding and watershed activities, including the MWRD’s stormwater management planning, the Northwest Municipal Conference’s Stormwater Management Committee, and the Upper Des Plaines River Ecosystem Partnership.							
Ongoing	Flooding, Severe Weather	1, 3, 4, 8	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Short-term and ongoing	Yes
(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.							

Action D3.6

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.6 —Continue urban forestry programs to maintain trees that threaten utility lines or buildings and cost sharing with residents to replace removed trees							
Ongoing	Flooding, Severe Weather	2, 11, 13	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Short-term and ongoing	Yes
(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.							

Action D3.7

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.7 —Continue and expand rebate program for low cost retrofitting projects that protect properties from natural hazards; current program funds surface flooding, drainage, and sewer backup protection measures. Explore expanding program to include other protective measures such as tornado safe rooms, lightning rods, and earthquake protection like strapping water heaters and cabinets to the wall.							
Ongoing	All	2, 11, 13	City of Des Plaines Public Works and Engineering Departments	Low	General Fund	Short-term and ongoing	Yes
(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.							

Action D3.8

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.8 —Complete planned flood control projects on the Des Plaines River and Farmers Creek.							
Ongoing	Flooding, Severe Weather	2, 9	City of Des Plaines Public Works and Engineering Departments	High	General Fund; FEMA Grant Funds	Short- and long-term	Yes
(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.							

Action D3.9

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.9 —Continue drainage system maintenance.							
Ongoing	Flooding, Severe Weather	2, 9	City of Des Plaines Public Works and Engineering Departments	High	General Fund	Short- and long-term	Yes
(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.							

Action D3.10

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.10 —Review public information projects							
Ongoing	All	2, 5	City of Des Plaines Public Information Office	Low	General Fund	Short- and long-term	Yes
(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.							

Action D3.11

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.11 —Continue updating and communicating public information messages related to hazards.							
Ongoing	All	2, 5	City of Des Plaines Public Information Office	Low	General Fund	Short-term and ongoing	Yes
(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.							

Action D3.12

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.12 —Continue to support the countywide actions identified in this plan.							
Ongoing	All	All	City of Des Plaines	Low	General Fund	Short- and long-term	No
(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.							

Action D3.13

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.13 —Actively participate in the plan maintenance strategy identified in this plan.							
Ongoing	All	3, 4, 6	DHSEM City of Des Plaines	Low	General Fund	Short-term	No

Action D3.14

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.14 —Where appropriate, support purchase or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.							
Ongoing	All	7, 13	City of Des Plaines	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)	No
(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.							

Action D3.15

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.15 —Initiate a study to determine if implementing a program to record high water marks following highwater events is feasible.							
Ongoing	Flooding, Severe Weather	3, 6, 9	City of Des Plaines	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term	No
(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.							

Action D3.16

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.16 —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.							
Ongoing	All	3, 4, 6, 10, 13	Des Plaines Engineering Department	Low	General Fund	Ongoing	No
(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.							

Action D3.17

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX							
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)	Included in Previous Plan?
Action D3.17 —Continue implementation of the City’s Capital Improvements Program (CIP).							
Ongoing	All	1, 2, 7	Des Plaines Engineering Department	High	CIP component of general fund (if implemented)	Ongoing	No
(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.							

Completed Mitigation Actions

Des Plaines 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

DES PLAINES EXISTING CONDITIONS	
2010 Population	58,364
Total Assessed Value of Structures and Contents	\$14,985,611,034
Area in 100-Year Floodplain	1,228.39 acres
Area in 500-Year Floodplain	1,891.46 acres
Number of Critical Facilities	182

HAZARD EXPOSURE IN DES PLAINES						
	Number Exposed		Value Exposed to Hazard			% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents	Total	
Dam Failure						
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%
Touhy	124	38	\$163,970,000	\$231,618,000	\$395,588,000	2.64%
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%
Flood						
100-Year	2,906	894	\$867,861,133	\$764,270,240	\$1,632,131,374	10.89%
500-Year	5,951	1,831	\$1,584,682,611	\$1,397,935,940	\$2,982,618,551	19.90%
Tornado						
100-Year			\$264,980,287	\$176,976,873	\$441,957,159	2.95%
500-Year			\$1,255,232,870	\$1,072,227,808	\$2,327,460,678	15.53%

ESTIMATED PROPERTY DAMAGE VALUES IN DES PLAINES				
	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	\$882,000	\$2,811,000	\$3,693,000	0.02%
U. Salt Cr. #3	\$0	\$0	\$0	0.00%
U. Salt Cr. #4	\$0	\$0	\$0	0.00%
Earthquake				
1909 Historical Event	\$50,671,931	\$12,772,577	\$63,444,508	0.42%
Flood				
10-Year	\$14,504,941	\$28,963,048	\$43,467,989	0.29%
100-Year	\$95,290,777	\$214,335,968	\$309,626,745	2.07%
500-Year	\$191,590,934	\$418,700,288	\$610,291,221	4.07%
Tornado				
100-Year	\$26,498,029	\$17,697,687	\$44,195,716	0.29%
500-Year	\$183,263,999	\$156,545,260	\$339,809,259	2.27%

Hazard Mapping





