

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

Palatine Annex

FINAL

July 2019

Prepared for:



Cook County
Department of Homeland Security and Emergency Management
69 W. Washington St., Suite 2600
Chicago, Illinois 60602

Toni Preckwinkle
President
Cook County Board of Commissioners

William Barnes
Executive Director
Cook County Department of Homeland
Security & Emergency Management

Table of Contents

Hazard Mitigation Point of Contact	3
Jurisdiction Profile	4
Capability Assessment	7
Jurisdiction-Specific Natural Hazard Event	12
Hazard Risk Ranking.....	14
Mitigation Strategies and Actions.....	15
New Mitigation Actions	21
Ongoing Mitigation Actions	44
Completed Mitigation Actions.....	49
Future Needs to Better Understand Risk/Vulnerability	52
Additional Comments	53
HAZUS-MH Risk Assessment Results	54
Hazard Mapping	57

Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
Scott Andersen Fire Chief/EMA Coordinator 200 E. Wood Street Palatine, IL 60067 Telephone: 847-202-6340 Email Address: sanderson@palatine.il.us	Patrick Gratianna Deputy Fire Chief 200 E. Wood Street Palatine, IL 60067 Telephone: 847-202-6340 Email Address: pgratianna@palatine.il.us

Jurisdiction Profile

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

- **Date of Incorporation:** 1866
- **Current Population:** 68,053 as of the 2018 US Census population estimate.
- **Population Growth:** There currently is not a significant chance of continued population growth in Palatine. This is due to the fact the Village is landlocked surrounded by Deer Park to the north, Schaumburg and Rolling Meadows to the south, Arlington Heights to the east, and Hoffman Estates to the west. There is a small residential section or “donut” area that could at some point be annexed, but that would not significantly increase the population. Also there is some redevelopment of existing properties that may marginally increase our population. As can be seen below Palatine had an enormous population growth during the last two decades. From 1960 to 1970, the population grew from 11,500 to 26,050 and by 1973 reached 28,800. The most recent census of the Village from 2010 reports a population of 68,557. Finally, Palatine’s economic stability during the recent housing market decline shows that a significant decrease in population is not likely. From the census taken in 2000 to the 2010 census, the population grew from 65,479 to 68,557. The population estimate for 2017 indicates a very slight down turn in population, but only by 0.1 percent.
- **Location and Description:** The Village covers approximately 14 square miles and is located 29 miles northwest of the Chicago Loop in Cook County. Five state and U.S. roads are included in its boundaries, and each of those roads gives easy access to the Interstate Road system in all four directions. The world’s second busiest airport, O’Hare International, Airport is located within 20 minutes driving time (15 miles). There are 135 miles of roadway within the Village limits. This includes U.S. routes, state routes, county roads, township roads and Village streets. Palatine is a key station and commuter stop for the Metra Railroad. Palatine is one of the few villages or cities in the Chicagoland area that contains a dam within its boundaries. There are several small lakes and ponds located in the Village, and two branches of the Salt Creek and Buffalo Creek meander through its boundaries. Several large water retention areas managed by the Metropolitan Water Reclamation District of Chicago can also be found here as well as more than 50 parks, both large and small. There are 15 grammar schools, two high schools and one junior college located in the Village. A United States Postal Service distribution center is also located in Palatine. The tallest building in the Village is 14 stories high. There is a downtown area, which is undergoing significant redevelopment, as well as numerous full-scale shopping centers. Numerous smaller strip-shopping areas can also be found here. Two international corporations are located in Palatine, together with numerous businesses and manufacturing facilities.
- **Brief History:** Palatine’s roots reach back to the 1830s when settlers from New York and New England traveled west to stake their claim in the fertile green prairies they had heard so much about from soldiers who were returning from the 1832 Blackhawk War. Using Indian trails, they continued north and west of the settlement at Fort Dearborn named Chicago, from the Indian phrase for the area which meant “wild onion place.” These early pioneers made their homes in the lush groves of trees that became known as Deer Grove, Plum Grove, Englishman’s Grove and Highland Grove. George Ela, who built his log cabin in Deer Grove in 1835, is credited with being

the first European to live in the area. Two well-traveled Indian trails, Woodstock Trail and Lake Zurich Trail, are known as Algonquin Road and Rand Road today. The Illinois and Wisconsin Railroad made its way to the Deer Grove Trading Post in 1853. A thriving settlement soon grew around the railroad station, guided by the vision of Joel Wood, who surveyed and laid out the Village of Palatine in 1855. The village was incorporated March 19, 1866 and chartered by the state in 1869. The George Clayson House, built in 1873 at 224 E. Palatine Road, has been meticulously renovated and is listed on the National Register of Historic Places.

- **Climate:** Palatine averages 36 inches of rain per year and 33 inches of snowfall. The average number of days with any measurable precipitation is 109. On average, there are 186 sunny days per year in Palatine. The July high is around 83 degrees and the January low is 11 degrees. The comfort index, which is based on humidity during the hot months, is a 46 out of 100, where higher is more comfortable.
- **Governing Body Format:** Palatine operates under the Village Manager form of government, in which an elected council, consisting of a mayor and six council members, hires a professional manager to oversee the day-to-day operation of government services and programs. This body of Government will assume the responsibility for the adoption and implementation of this plan. In Palatine the council is known as the Village Council, and the chief elected official is the Mayor. The Village of Palatine operates 16 departments including; Building Department, Community Services, Emergency Management, Engineering Department, Environmental Health Division, Finance Department, Fire Department, Fire Prevention, Human Resources, Information Technology, Neighborhood Services Division, Planning & Zoning Department, Police Department, Public Works Department, Village Manager’s Office, and the Village Clerk’s Office.
- **Development Trends:** Palatine is operating under a recently revised Comprehensive Plan that was adopted in 2011. Although much of Palatine’s previous growth occurred through annexation, Palatine today is a mature community. As such, the majority of anticipated future growth will likely come through redevelopment activities. Recently, several new in-fill residential subdivisions are being constructed. Also, the majority of commercial redevelopment activities are clustered along the Rand Road, Dundee Road, and Northwest Highway corridors. Downtown Palatine is a mixed-use, transit oriented design, which has focused upon residential, commercial, office, and open space development opportunities over the last 12 years.

The Comprehensive Plan also recommended mechanical changes and revisions of the Zoning Ordinance, Subdivision Ordinance, and Village Code as part of the implementation process. Many of those recommendations have either been implemented or are planned for implementation in the near term. Palatine’s Comprehensive Plan will serve as a guide for the managing current development plans and a resource to achieve and implement future development goals and objectives.

The leadership of Palatine constantly works to stay relevant and to offer its residents and those of nearby communities a plethora of services and opportunities to shop, be employed, entertain themselves, enjoy nature and recreational activities, and educate themselves and their children. So it is not surprising that a number of new businesses and facilities have opened or relocated within Palatine over the past year, with many new businesses coming in 2019.

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	Chapter 6 Article 1-93 2011
Zonings	Yes	No	No	Yes	Appendix A Article 1-14.12, 1957
Subdivisions	Yes	No	No	No	Appendix B Article 1-9.03, 1966
Stormwater Management	Yes	No	Yes	Yes	Article V, Chapter 19, Sec. 6.09, Appendix B 2004
Post Disaster Recovery	Yes	No	No	No	2010, Annex of EOP
Real Estate Disclosure	Yes	No	Yes	Yes	Chapter 14 Article I-V1980
Growth Management	Yes	No	No	No	The Village of Palatine’s Capital Improvement Plan is contained in the Village’s 2011 Comprehensive Plan
Site Plan Review	Yes	No	No	No	The Village of Palatine’s Site Review Plan is contained in the

					Village's 2011 Comprehensive Plan
Public Health and Safety	Yes	No	Yes	Yes	Chapter 2 & 9
Environmental Protection	No	No	No	No	
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	The Comprehensive Plan for the Village of Palatine/2011
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					Yes
Floodplain or Basin Plan	No	No	Yes	No	We follow FEMA guidance
Stormwater Plan	No	No	Yes	No	Regional stormwater impacts are managed by MWRD. The Village of Palatine lies within the Upper Salt Creek watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
Capital Improvement Plan	Yes	No	No	No	The Village of Palatine's Capital Improvement Plan is contained in the Village's 2011 Comprehensive Plan
<i>What types of capital facilities does the plan address?</i>					Buildings, roads and other critical infrastructure
<i>How often is the plan revised/updated?</i>					Yearly

Habitat Conservation Plan	Yes	No	No	No	2011
Economic Development Plan	Yes	No	Yes	Yes	The Village of Palatine’s Economic Development Plan is contained in the Village’s 2011 Comprehensive Plan.
Shoreline Management Plan	N/A	No	No	No	N/A
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	No	No	Yes	2012 EOP is on File with the State of Illinois
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	Yes	No	No	Yes	The terrorism plan is contained in the 2012 Village EOP.
Post-Disaster Recovery Plan	Yes	No	No	No	The post disaster recovery plan is contained in the 2012 Village EOP.
Continuity of Operations Plan	Yes	No	No	No	The 2013 COOP is a standalone plan separate from the Village EOP.
Public Health Plans	No	No	Yes	No	Cook County DPH, Illinois 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

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	Engineering/Planning and Economic Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering/Community Services
Planners or engineers with an understanding of natural hazards	Yes	Engineering/Public Works
Staff with training in benefit/cost analysis	Yes	Finance
Surveyors	Yes	Public Works/Engineering
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium/VOP IT
Scientist familiar with natural hazards in local area	No	N/A
Emergency manager	Yes	Emergency Management/Coordinator
Grant writers	No	(No full time staff-each department does their own)

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)	Director of Engineering

Are any certified floodplain managers on staff in your jurisdiction?	Yes (3)
What is the date of adoption of your flood damage prevention ordinance?	1976
When was the most recent Community Assistance Visit or Community Assistance Contact?	2/27/2009
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/No

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	Yes	7	2004
Building Code Effectiveness Grading Schedule	No longer participate	4	2006
Public Protection/ISO	Yes	ISO 2	2012
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	Yes	N/A	2013

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: 2
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 1

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Severe Weather	-	9/5/2014	-
Lightning	-	6/30/2014	\$25,000 in property damage.
Hail	-	5/12/2014	-
Hail	-	4/12/2014	-
Severe Winter Weather	-	2013-2014	-
Tornado	-	11/2013	-
Flood	-	4/2013	-
Severe Winter Weather	-	2013	-
Flood	FEMA	7/2011	-
Severe Winter Weather (Blizzard)	FEMA	2/2011	-
Flood	-	9/2009	-
Severe Weather	-	8/2007	-
Severe Winter Weather	-	1/2005	-
Severe Winter Weather (Blizzard)	-	1/2002	-

Severe Winter Weather (Blizzard)	-	2/2000	-
Severe Winter Weather	-	1/1999	-
Heat	-	7/1995	-
Severe Winter Weather	-	2/1979	-
Flood	-	1988	-
Flood	-	1987	-
Flood	-	1986	-

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.

Flooding: We have experienced flooding at the intersection of Smith and Colfax. We have also experienced floods that have damaged cars in the adjacent parking lot. Our flood-prone roads include Palatine Rd. near Kerwood and Northwest highway by Greenwood/forest.

Wind and Tornado: Wind gusts occur during both severe thunderstorms and winter storms and can cause damage in the community.

Hail: Frequently occurs; however, little damage is often caused.

Winter Storm: [10.5% of the population is 65 or older](#). Vulnerable populations will be considered when preparing for events.

Earthquake: While an earthquake impact has a minimal impact of having, while the area improves pump stations and debris removal plans, earthquakes preparation will be somewhat considered

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	Tornado	30
4	Flood (Urban)	12
5	Earthquake	6
6	Drought	3
7	Dam Failure	0

Mitigation Strategies and Actions

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

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

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

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX						
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)
Action P1.1 —Create a debris removal plan.						
Ongoing	Earthquake, Tornado	1, 2, 8	Public Works	\$2,000; Low	General Budget	2016, Short-term
Action P1.2 —Strengthen building codes.						
Removed	All	3, 10	Administration	Low	General Budget	Removed
Action P1.3 —Continue public outreach efforts.						
Ongoing	All	1, 2, 5, 6, 11	Emergency Management	\$5,000; Low	General Budget	Ongoing
Action P1.4 —Upgrade outdoor warning sirens.						

Removed	Tornado, Severe Weather	5, 6	Emergency Management	\$100,000; High	Capital Improvement, Grants	Removed
Action P1.5 —Upgrade reverse 911 system.						
Completed	All	5, 6	Northwest Central Dispatch	High	Subscription Increase of Users Group	Completed
Action P1.6 —Upgrade Emergency Operations Center.						
Completed	All	1, 2	Emergency Management	\$333,000; Low	Grant	Completed
Action P1.7 —Replacement of south supply water pumping station generator.						
Completed	All	1, 2	Public Works	\$325,000; Low	Capital Improvement Program	Completed
Action P1.8 —Continue creek stabilization program.						
Ongoing	Urban Flooding	2, 3, 7, 9	Public Works	\$680,000; Medium	Capital Improvement Program	2015-2018, Short-term
Action P1.9 —Continue creek outfall structure rehabilitation program.						
Ongoing	Urban Flooding	2, 3, 7, 9	Public Works	\$50,000; Medium	Capital Improvement Program	2014-2018, Short-term
Action P1.10 —Continue storm sewer and drain tile replacement and expansion program.						
Ongoing	Urban Flooding	2, 3, 7, 9	Public Works	\$400,000; Medium	Capital Improvement Program	2014-2018, Short-term
Action P1.11 —Complete water shed analysis.						
Ongoing	Urban Flooding	2, 3, 7, 9	Public Works	\$100,000; Medium	Capital Improvement Program	2014-2015, Short-term
Action P1.12 —Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.						
Removed	All	7, 13	Village of Palatine	High	FEMA Hazard	Removed

					Mitigation Grants	
Action P1.13 —Continue to support the countywide actions identified in this plan.						
Removed	All	All	Village of Palatine	Low	General Fund	Removed
Action P1.14 —Actively participate in the plan maintenance strategy identified in this plan.						
Removed	All	3, 4, 6	DHSEM, Village of Palatine	Low	General Fund	Removed
Action P1.15 —Continue to maintain/enhance Village’s classification under the Community Rating System (CRS) program.						
Removed	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Village of Palatine	Low	General Fund	Removed
Action P1.16 —Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts						
Ongoing	Flooding	4, 6, 9	Village of Palatine	Low	General Fund	Short-term and ongoing
Action P1.17 —Where feasible, implement a program to record high water marks following high-water events.						
Removed	Flooding, Severe Weather	3, 6, 9	Village of Palatine	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Removed
Action P1.18 —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
Removed	All	3, 4, 6, 10, 13	Engineering, Planning, and Economic Development Departments	Low	General Fund	Removed
Action P1.19 —Implement Smith & Colfax Stormwater Capacity Improvement						
New	Flood	2, 3, 7, 12	Village of Palatine	\$5,000,000; High	MWRD and Local Funds	2022

Action P1.20—Implement Salt Creek Erosion Control and Bank Stabilization						
New	Flood	2, 3	Village of Palatine	\$1,500,000; High	MWRD Grant and Local Funds	2021
Action P1.21—Install Lilly Lift Station Generator Replacement						
New	Earthquake, Flood, Lightning, Tornado	2	Village of Palatine	\$500,000; Medium	MWRD Grants and Local Funds	2021
Action P1.22—Train Station Roof Replacement						
New	Lightning, High Wind, Snow, Blizzard, Ice Storms, Tornado	1, 2	Village of Palatine	\$500,000; Medium	Local Funds	2022
Action P1.23—South Supply Pump Station Rebuild						
New	Earthquake, Flood, Lightning, Tornado	12, 13	Village of Palatine	\$4,000,000; High	Grants	2024
Action P1.24—Install Peppertree Lift Station Gravity Sewer Conversion						
New	Flood	2, 3, 7, 9, 13	Village of Palatine	\$1,250,000; Medium	Local Funds	2022
Action P1.25—Implement Buffalo Creek Bank Restoration and Armoring						
New	Flood, Snow	2, 3, 7, 9, 13	Village of Palatine	\$2,000,000; High	MWRD Grants and Local Funds	2025
Action P1.26—Implement Kasuba Lift Station Rebuild						
New	Earthquake, Flood, Tornado	2, 3, 7	Village of Palatine	\$2,500,000; High	MWRD Grants and Local Funds	2022
Action P1.27—Install Gateway Center Parking Deck Generator Replacement						
New	Flood, Widespread Power Outage	2, 13	Village of Palatine	\$350,000; Medium	Local Funds	2022
Action P1.28—Implement Smith and Colfax Traffic Signal Replacement						

New	Flood, Widespread Power Outage	1, 2	Village of Palatine	\$250,000; Medium	Local Funds	2023
-----	--------------------------------	------	---------------------	-------------------	-------------	------

(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	Yes	Yes	High
2	1	Medium	Low	Yes	No	Yes	High
3	5	Low	Low	Yes	No	Yes	High
4	2	High	High	Yes	Yes	No	Medium
5	2	High	High	Yes	Yes	No	Medium
6	2	Medium	Low	Yes	Yes	Yes	High
7	2	Medium	Low	Yes	Yes	Yes	High
8	4	Medium	Medium	Yes	No	Yes	High
9	4	Medium	Medium	Yes	Yes	Yes	High
10	4	Medium	Medium	Yes	Yes	Yes	High
11	4	Medium	Medium	Yes	No	Yes	High
12	2	High	High	Yes	Yes	No	Medium
13	13	Medium	Low	Yes	No	Yes	High
14	3	Medium	Low	Yes	Yes	Yes	High
15	9	Medium	Low	Yes	No	Yes	Medium
16	3	Medium	Low	Yes	No	Yes	High
17	3	Medium	Medium	Yes	Yes	No	Medium
18	5	Medium	Low	Yes	No	Yes	High
19	5	Medium	High	Yes	Yes	Unknown	High
20	2	Medium	High	Yes	Yes	Unknown	High

21	1	Medium	Medium	Yes	Yes	Unknown	High
22	2	High	Medium	Yes	Unknown	Unknown	High
23	2	High	High	Yes	Yes	Unknown	High
24	5	Medium	Medium	Yes	Unknown	Unknown	High
25	5	High	High	Yes	Yes	Unknown	High
26	2	Medium	High	Yes	Yes	Unknown	High
27	2	High	Medium	Yes	Unknown	Unknown	Medium
28	2	High	Medium	Yes	Unknown	Unknown	Medium

(a) See Chapter 1 for explanation of 3 priorities.

New Mitigation Actions

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

Action P-1.19

Mitigation Action	Implement Smith & Colfax Stormwater Capacity Improvement
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. • Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetitively damaged. • Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area.
Potential Funding Source	MWRD and Local Funds
Estimated Cost	5,000,000
Benefits (loss avoided)	Protect property damage, allow access for emergency vehicles
Projected Completion Date	2022
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High)	High—Existing funding will not cover the cost of the project; implementation would require new

	revenue through an alternative source (for example, bonds, grants, and fee increases).
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Storm sewer replacement, realignment, and upsizing to increase capacity. This would reduce the frequency of closure of the intersection of two roadways, providing primary access into the central business district. It would further mitigate the future costs to nearby and adjacent private and public buildings, including a commuter train station and parking deck.

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
--	------------------------------

Action P-1.20

Mitigation Action	Implement Salt Creek Erosion Control and Bank Stabilization
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change.
Potential Funding Source	MWRD Grant and Local Funds
Estimated Cost	1,500,000
Benefits (loss avoided)	Protect property damage
Projected Completion Date	2021
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High)	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:	Streambank improvements to counteract existing severe erosion to the slope and toe of the bank. Removal of sedimentation at the stream floor to improve capacity and flood conveyance.
--	--

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

Action P-1.21

Mitigation Action	Install Lilly Lift Station Generator Replacement
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities.
Potential Funding Source	MWRD Grants and Local Funds
Estimated Cost	\$500,000
Benefits (loss avoided)	Protect properties served by this sanitary sewer lift station
Projected Completion Date	2021
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a re-portionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Removal and replacement of the generator for the Lilly sanitary sewer lift station to current standards and capacities.

Mitigation Action and Project Maintenance

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

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

Action P-1.22

Mitigation Action	Train Station Roof Replacement
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events. • Develop, promote, and integrate mitigation action plans.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities.
Potential Funding Source	Local Funds
Estimated Cost	500,000
Benefits (loss avoided)	Protect traveling public and public transit
Projected Completion Date	2022
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:	Replacement of the slate roof at the Palatine Metra Train Station.
--	--

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

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

Action P-1.23

Mitigation Action	South Supply Pump Station Rebuild
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Reduce natural hazard-related risks and vulnerability to potentially isolated populations within the planning area. • 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	4,000,000
Benefits (loss avoided)	Protect public by providing safe drinking water
Projected Completion Date	2024
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.
Cost Analysis (Low, Medium, High)	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Replacement of the existing equipment.

Mitigation Action and Project Maintenance
--

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

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

Action P-1.24

Mitigation Action	Install Peppertree Lift Station Gravity Sewer Conversion
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. • Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetitively damaged. • Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans. • Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.
Potential Funding Source	Local Funds
Estimated Cost	1,250,000
Benefits (loss avoided)	Protect public by reducing flooding and protecting property from damage
Projected Completion Date	2022
Priority and Level of Importance (Low, Medium, High)	High Priority

Benefit Analysis (Low, Medium, High)	Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Replacement of the existing Peppertree sanitary sewer lift station with a gravity sewer.

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

Action P-1.25

Mitigation Action	Implement Buffalo Creek Bank Restoration and Armoring
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. • Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetitively damaged. • Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans. • Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.
Potential Funding Source	MWRD Grants and Local Funds
Estimated Cost	2,000,000
Benefits (loss avoided)	Reduction in sediment and erosion to protect property from damage
Projected Completion Date	2025
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.
Cost Analysis (Low, Medium, High)	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).

Actual Completion Date	
-------------------------------	--

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Removal of all volunteer growth, regrading of slopes and improvement of flow. Armor toe at slopes to provide erosion control. Implementation of all current BMPs for creek flow. Addition of native planting on side slopes to promote and enhance erosion control.

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
X	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 P-1.26

Mitigation Action	Implement Kasuba Lift Station Rebuild
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Consider the impacts of natural hazards on future land uses in the planning area, including possible impacts from climate change. • Retrofit, purchase, or relocate structures in high hazard areas, including those known to be repetitively damaged.
Potential Funding Source	MWRD Grants and Local Funds
Estimated Cost	2,500,000
Benefits (loss avoided)	Protect properties served by this lift station
Projected Completion Date	2022
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	Medium—Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High)	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Removal of damaged equipment and station and rebuild it to current standards.

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

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

Action P-1.27

Mitigation Action	Install Gateway Center Parking Deck Generator Replacement
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.
Potential Funding Source	Local Funds
Estimated Cost	350,000
Benefits (loss avoided)	Protect public by maintaining lighting and operation of elevators and emergency phones
Projected Completion Date	2022
Priority and Level of Importance (Low, Medium, High)	Medium Priority
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:	Replacement of existing generator to meet current standards.
--	--

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
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

Action P-1.28

Mitigation Action	Implement Smith and Colfax Traffic Signal Replacement
Year Initiated	2019
Applicable Jurisdiction	Village of Palatine
Lead Agency/Organization	Village of Palatine
Supporting Agencies/Organizations	
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities.
Potential Funding Source	Local Funds
Estimated Cost	250,000
Benefits (loss avoided)	Protect motoring public
Projected Completion Date	2023
Priority and Level of Importance (Low, Medium, High)	Medium Priority
Benefit Analysis (Low, Medium, High)	High—Project will provide an immediate reduction of risk exposure for life and property.
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
Actual Completion Date	

Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	Removal of existing signals and pre-emption equipment and replacement to meet current standards.

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
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 P-1.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.1	Create a debris removal plan	
Status Description: No	No action was completed at this point in time due to a combination of a lack of funding and personnel.	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 P-1.3

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.3	Continue public outreach efforts.	
Status Description: Yes	We continue to leverage our open houses and festivals as opportunities to promote preparedness and mitigation within the community.	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 P-1.8

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.8	Continue creek stabilization program	
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 P-1.9

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.9	Continue creek outfall structure rehabilitation program	
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 P-1.10

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.10	Continue storm sewer and drain tile replacement and expansion program	
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 P-1.11

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.11	Complete water shed analysis	
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 P-1.16

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.16	Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.	
Status Description: Yes		O
Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken		

Completed Mitigation Actions

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

Action P-1.5

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.5	Upgrade reverse 911 system	
Status Description: Yes	Increased the capabilities of the Everbridge reverse 911 system being used by the region through the joint dispatch center.	C
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action P-1.6

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.6	Upgrade Emergency Operations Center	
Status Description: Yes	Upgrades to the Emergency Operations Center have been completed. All new technology and furniture have been installed.	C
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action P-1.7

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# P-1.7	Replacement of south supply water pumping station generator	
Status Description: Yes		C
<p>Completion status legend:</p> <p>N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Future Needs to Better Understand Risk/Vulnerability

No needs have been identified at this time.

Additional Comments

No additional comments at this time

HAZUS-MH Risk Assessment Results

PALATINE EXISTING CONDITIONS	
2010 Population	68,557
Total Assessed Value of Structures and Contents	\$10,416,721,697
Area in 100-Year Floodplain	521.48 acres
Area in 500-Year Floodplain	581.44 acres
Number of Critical Facilities	79

HAZARD EXPOSURE IN PALATINE						
	Number Exposed		Value Exposed to Hazard			% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents	Total	
Dam Failure						
Buffalo Creek	1,732	533	\$232,077,000	\$149,743,000	\$381,820,000	3.67%
U. Salt Cr. #2	975	300	\$132,204,000	\$66,101,000	\$198,305,000	1.90%
Touhy	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	1,255	386	\$182,223,000	\$103,594,000	\$285,817,000	2.74%
U. Salt Cr. #4	1,836	565	\$238,820,000	\$136,165,000	\$374,985,000	3.60%
Flood						
100-Year	299	92	\$35,172,501	\$17,586,251	\$52,758,752	0.51%

500-Year	455	140	\$54,488,560	\$27,244,280	\$81,732,840	0.78%
Tornado						
100-Year	—	—	\$772,547,729	\$484,026,705	\$1,256,574,434	12.06%
500-Year	—	—	\$1,785,808,035	\$1,166,070,054	\$2,951,878,090	28.34%

ESTIMATED PROPERTY DAMAGE VALUES IN PALATINE				
	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	Total	
Dam Failure				
Buffalo Creek	\$1,040,000	\$1,851,000	\$2,891,000	0.03%
U. Salt Cr. #2	\$377,000	\$218,000	\$595,000	0.01%
Touhy	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	\$5,993,000	\$5,678,000	\$11,671,000	0.11%
U. Salt Cr. #4	\$9,511,000	\$10,047,000	\$19,558,000	0.19%
Earthquake				
1909 Historical Event	\$20,844,435	\$4,497,455	\$25,341,890	0.24%
Flood				
10-Year	\$0	\$0	\$0	0.00%
100-Year	\$377,183	\$153,343	\$530,525	0.01%
500-Year	\$3,069,694	\$1,464,657	\$4,534,351	0.04%

Tornado				
100-Year	\$77,254,773	\$48,402,670	\$125,657,443	1.21%
500-Year	\$260,727,973	\$170,246,228	\$430,974,201	4.14%

Hazard Mapping





