

6 River Forest 2021 MJ-HMP Jurisdictional Annual Report

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Annual Reporting Year: 2021

Background: Cook County and participating municipalities in the county developed a hazard mitigation plan to reduce risk from all hazards by identifying resources, information, and strategies for risk reduction. The federal Disaster Mitigation Act of 2000 requires state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. To prepare the plan, the participating partners organized resources, assessed risks from natural hazards within the county, developed planning goals and objectives, reviewed mitigation alternatives, and developed an action plan to address probable impacts from natural hazards. By completing this process, these jurisdictions maintained compliance with the Disaster Mitigation Act, achieving eligibility for mitigation grant funding opportunities afforded under the Robert T. Stafford Act.

Purpose: The purpose of this report is to provide an annual update on the implementation of the action plan identified in the Cook County Multi-Jurisdictional Hazard Mitigation Plan. The objective is to ensure that there is a continuing and responsive planning process that will keep the Hazard Mitigation Plan dynamic and responsive to the needs and capabilities of the partner jurisdictions. This report discusses the following:

- Natural hazard events that have occurred within the last year
- Changes in risk exposure within the planning area (all of Cook County) Mitigation success stories
- Review of the action plan
- Changes in capabilities that could impact plan implementation
- Recommendations for changes/enhancement.

Hazard Analysis

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

Flood: Previously, heavy rain has caused flooding on Keystone Ave between Division St. and Thomas St. Des Plaines River overflows banks and floods neighborhoods along Chicago Ave. and Lake St. In 2008, Heavy rainfall caused major flooding of the Des Plaines River at Des Plaines and Riverside. The river crested at the second highest level on record at both locations. The crest was 10.00 feet at Des Plaines and 9.86 feet at Riverside. Officials in Des Plaines urged residents along the Des Plaines River to evacuate as waters rose to near record levels. Many roads in River Forest were closed. In 2015, both directions of I-290 were flooded and closed between Harlem Avenue and Desplaines Avenue due to urban flooding. In 2009, standing water was reported on right the side of Interstate 290 at Austin Blvd after severe thunderstorms and rain.

Extreme Heat: The Village is particularly susceptible to the impacts of extreme heat because of the large elderly population ([17.9% of the population are 62 or over](#)). While no recorded extreme heat events have occurred, the summers have continually become hotter.

High Winds: The heavy density of mature trees throughout the Village are susceptible to damage from high winds. In 2008, trees and large tree limbs were blown down along Wenonah Avenue. A large tree was uprooted along Clinton Avenue and fell onto a house causing damage to the roof and gutters. In 2011, a one-foot diameter branch was blown down with numerous smaller branches on Harvard Street between Clarence Avenue and East Avenue.

Extreme Cold: The Village's large elderly population is vulnerable to extreme cold.

Ice Storms: Large mature trees and overhead power lines throughout the Village are vulnerable to damage from the weight of ice from ice storms. In 2006, quarter size hail was reported in River Forest and lasted 10 minutes. The hail caused damage to cars and windows.

Earthquake: While no earthquake has hit the Village, the Village wants to be prepared given the potential widespread impact an earthquake can have.

Natural Hazard Events in 2021

Instructions: Please use the **Edit** Tool to describe new hazard occurrences/incidents from the past year that have impacted your jurisdiction and had a measurable impact on people or property. (Example: A tornado occurred on [Date] and impacted [insert area] and caused damage to [insert damages]). You may also use the Edit Tool to suggest any modifications/improvements to the hazards unique to your community, as described below from the 2019 plan.

Describe 2021 Natural Hazard Events Here: None

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.

New Mitigation Actions

Please submit [here](#)

Ongoing Mitigation Actions

The following are ongoing actions. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed. Reviewers of this report should refer to the Hazard Mitigation Plan for more detailed descriptions of each action and the prioritization process. Address the following for each mitigation action:

- Was any element of the action carried out during the reporting period?
- If no action was completed, why?
- Is the timeline for implementation or the action still appropriate?
- If the action was completed, does it need to be changed or removed from the action plan?

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX

Completion status legend:								
N = New			O = Action Ongoing toward Completion					
C = Project Completed			R = Want Removed from Annex			X = No Action Taken		
2021 Status	2020 Status	2019 Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)
Action R3.1 —Property Protection – Acquire 5 parcels in a flood area along the 8200 block of Lake St., due to repetitive loss. Demolish and preserve for open space.								
Status Description:								
Ongoing	Ongoing	Ongoing	Flood	1, 7	Admin	\$2.1 million; High	FEMA Hazard Mitigation Grant	Short-term Dependent upon funding
Action R3.2 —Property Protection – Assist residents in flood prone areas with the cost of retro-fitting an overhead sewer system.								
Status Description:								
Ongoing	Ongoing	Ongoing	Flood	1, 7, 11, 12	Public Works	\$65,000; Low	River Forest General Fund	Annual, ongoing
Action R3.3 —Public Education – Perform Community outreach through the use of mass notification. Alerting residents of potential natural hazards such as heavy snow events and floods, how to prepare, and steps to take to reduce loss of property through proper pre-event planning.								
Status Description:								
Ongoing	Ongoing	Ongoing	All Hazards	6	Admin, Fire, Police, Public Works	\$10,000	River Forest General Fund	Annual, ongoing
Action R3.4 —Structural Projects – Encourage use of permeable pavers for new driveways or parking lots.								
Status Description:								
Ongoing	Ongoing	Ongoing	Flood, Severe Weather	3, 4, 9, 13	Plan	Low	General Fund	Short-term
Action R3.5 —Structural Projects – Increase height & length of earthen berm along Lake St. near Des Plaines River to reduce overflow of river and channel excess water away from homes in the area.								
Status Description:								
Ongoing	Ongoing	Ongoing	Flood	1, 2, 9, 12	Public Works	\$10,000; Low	River Forest, General Fund	Short-term
Action R3.6 —Structural Projects – Construction of a new separate storm sewer system, North of Division Street, reducing potential for flooding by improving storm water drainage.								
Status Description:								
Completed	Completed	Completed	Flood	2, 9	Public Works	\$15 million; High	IEPA Loan, Paid with increase to water & sewer rates	Completed
Action R3.7 —Prevention – Modify building code to include specific grading requirements to reduce storm water run-off onto adjacent properties.								
Status Description:								
Completed	Completed	Completed	Flood	3, 4, 10	Building	Low	River Forest	Completed
Action R3.8 —Emergency Services – Conduct pre-event planning meeting including all village public safety entities, to plan for and mitigate significant natural hazard events. Perform function tests on essential equipment such as pumps, generators and other equipment. Advance preparation of artificial berms, sandbags and pre-placement of barricades, initiate call-out of volunteer groups.								
Status Description:								
Ongoing	Ongoing	Ongoing	All Hazards	2, 8	Admin, Fire, Police, Public Works	Low	River Forest CIP & General Fund	Short-term
Action R3.9 —Prevention – Provide sandbags and plastic sheeting to residents in anticipation of heavy rains with Des Plaines River at high levels. Provide public information to residents on where and how to secure materials.								
Status Description:								

Ongoing	Ongoing	Ongoing	Flood	2, 9, 12	Public Works	Low	River Forest Emergency Plan	Short-term
Action R3.10 —Emergency Services – Continue to participate in mutual aid agreement, but also in agreements with contiguous municipalities for cooperative response to all hazards and disasters.								
Status Description:								
Ongoing	Ongoing	Ongoing	All Hazards	1, 8	Fire, Police, Public Works	Low	River Forest CIP & General Fund	Short-term
Action R3.11 —Prevention – Develop and implement 'Damage Assessment' program and take structural inventory during assessment baseline to determine where unreinforced masonry buildings exist in our community.								
Status Description:								
Ongoing	Ongoing	Ongoing	Earthquake	2, 6	Public Works	Low	Grant funding	Short-term
Action R3.12 —Prevention – Acquire 4' X 10' concrete barriers to contain flood waters at Chicago Ave in an effort to prevent residential flooding in the Thatcher Woods area (Trailside Museum)								
Status Description:								
Completed	Completed	Completed	Flood	1, 9, 12	Public Works	\$25,000; Low	Grant funding River Forest General Fund	Completed
Action R3.13 —Prevention – Maintain Village 'Emergency Notification' system (Blackboard Connect)								
Status Description:								
Ongoing	Ongoing	Ongoing	All Hazards	5, 6	Admin	\$10,000; Low	River Forest General Fund	Short-term
Action R3.14 —Prevention – Upgrade severe weather warning system								
Status Description:								
Ongoing	Ongoing	Completed	Tornado	5, 6	Public Works	\$30,000; Low	Grant funding	Short-term
Action R3.15 —Education – Public education program that teaches home and business owners how to 'Harden' structures by securing water heaters, furnaces and other fossil fuel appliances.								
Status Description:								
Ongoing	Ongoing	Ongoing	Earthquake	6	CERT	\$10,000; Low	Grant funding River Forest General Fund	Short-term
Action R3.16 —Continue to support the county-wide actions identified in this plan.								
Status Description:								
Ongoing	Ongoing	Ongoing	All	All	Village	Low	General Fund	Short-and Long-term
Action R3.17 —Actively participate in the plan maintenance strategy identified in this plan.								
Status Description:								
Ongoing	Ongoing	Ongoing	All	3, 4, 6	DHSEM, Village	Low	General Fund	Short-term
Action R3.18 —Purchase properties on 8200 block of Lake St. and preserve as open space due to repetitive loss from flooding								
Status Description:								
Ongoing	Ongoing	New	Flood	3, 7	TBD	\$1,500,000; Medium	Local Funds	2025
Action R3.19 —Implement the River Forest – Gale Avenue Green Alley Improvement								
Status Description:								
Completed	Ongoing	New	Flood	12, 13	MWRD	\$193,740	MWRD	TBD
Action R3.20 —Complete the Stormwater Master Plan Study								
Status Description:								
New	-	-	Flood	1, 2, 3, 5	-	\$168,000	Grant and local funds	2022
Action R3.21 —Replace all alleys with permeable alleys.								
Status Description:								
New	-	-	Flood	2, 3	0	\$4.5 million	Local or Grant Funding	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.

Mitigation Success Stories: Examples of mitigation success stories include, but are not limited to: received a Grant, completed a major mitigation project, etc

Future Needs: Examples of future needs include, but are not limited to: receiving training to better understand the mitigation grant application process, studies that may be needed to better understand hazards/risks, etc.

6.1 Action R3.20

Mitigation Action	Complete the Stormwater Master Plan Study
Year Initiated	2021
Applicable Jurisdiction	Village of River Frost
Lead Agency/Organization	-
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.
Potential Funding Source	Grants and local funds
Estimated Cost	\$168,000
Benefits (loss avoided)	Develop a plan to prevent roadway/yard/structure flooding during substantial rain events due to sewer backup.
Projected Completion Date	2022
Priority and Level of Importance (Low, Medium, High)	Medium 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:	The stormwater master plan will create a model of the Village's combined sewer system and will calibrate it based on flow data collected during the last year. Sewer network deficiencies will be identified as well as future CIP projects to help address any deficiencies.
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Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
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

6.2 Action R3.21

Mitigation Action	Replace all alleys with permeable alleys.
Year Initiated	2021
Applicable Jurisdiction	Village of River Frost
Lead Agency/Organization	-
Supporting Agencies/Organizations	-
Applicable Goal	<ul style="list-style-type: none"> • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards. • Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Potential Funding Source	Grants and local funds
Estimated Cost	\$\$4.5 million
Benefits (loss avoided)	Increase in combined sewer capacity due to infiltration. Reduction in yard/alley flooding during heavy rain events.
Projected Completion Date	2023
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:	All remaining alleys (14) that do not already include permeable elements will be reconstructed within the next 15 months. They will include permeable pavers and open-graded stone subbase to promote infiltration to alleviate the already over-burdened combined sewer system.
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Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
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