

6 Inverness 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: We experience flooding at Banbury Road, Palatine Road, and Dewey. This Impacts our access to roads and state systems.

High Winds: We experience high winds in central Inverness, which greatly impacts the overhead power lines resulting in a lack of power, which in turn, leads to no working wells (private). Aquifers and well data can be accessed through the Illinois State Geological Society Interactive Map (<http://maps.isgs.illinois.edu/ilwater/>)

Ice Storms: Areas with overhead power lines are susceptible to losing power during ice storms, putting our community at risk of having no working wells.

Extreme Heat and Cold: With a relatively older population ([median age of 50.8](#)), the residents over 65 are particularly susceptible to extreme climates.

Earthquake: While no fault line runs under the community, the community would like to incorporate building codes and debris planning that encompasses an all-hazards approach, which includes earthquake mitigation

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:

- June 11 & 12, 2021, scattered thunderstorms developed across northern Illinois, the Inverness received approximately 2-Day rainfall off 1.25 inches with created isolated roadway flooding.
- July 29, 2021: Overnight Severe Storms Bring Wind Damage to Parts of Northern Illinois, Inverness experienced wind gusts of up to 50 mph resulting in damaged tree limbs.
- August 10-11, 2021: Multiple Rounds of Severe Thunderstorms Produce Widespread Wind Damage: Inverness experienced several damaged tree limbs.

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 12.1 —Continue community outreach and preparedness education activities.								
Status Description:								
2021: the Village continues to provide community outreach and preparedness education activities. In 2021, the Village updated the Stormwater management website to add the Invenss Food Hazard Map and FEMA Flood Map GIS.								
O		Ongoing	All	1, 2, 5, 6, 11	Village Administration	\$500; Low	Annual Budget	Ongoing
Action 12.2 —Review and update building and zoning code.								
Status Description:								
2021: Ongoing: the Village regularly reviews the Code for any updated as needed. In 2021, the Village submitted a Pre-Application Form for the 2021 Building Resilient Infrastructure and Communities (BRIC) Grant to the Illinois Emergency Management Agency to updated the 2021 ICS Code and update the Village's 1993 Flood and Stormwater Management Regulations to current federal, state, and county regulations								
-	-	Action Ongoing toward Completion	Flood, Earthquake, Severe Weather, Severe Winter Weather, Tornado	2, 6, 8, 10	Village Administration	\$500; Low	Annual Budget	Completed
Action 12.3 —Develop and maintain a a formal Snow Removal and Ice Control Plan with policies and procedures that will systematically provide services at a level which permit emergency access to buildings, walkways to all buildings and parking lots for prudent pedestrians, and adequate parking access for employees and visitors								
Status Description:								
2021: No action.								
X		Ongoing	Winter Weather	1, 2, 4, 8	Village Administration	\$500; Low	Annual Budget	Ongoing
Action 12.4 —Develop and maintain an all-hazard debris removal plan.								
Status Description:								
O		Ongoing	Flood, Earthquake, Severe Weather, Tornado	1, 2, 4, 8	Village Administration	\$500; Low	Annual Budget	Ongoing
Action 12.5 —Conduct Banbury Flood Study to reduce flooding and property damage in teh NE section of the Village.								
Status Description:								
X		Ongoing	Flood, Severe Weather	1, 2, 3, 9	Illinois Department of Transportation	Medium	FEMA's RiskMAP program, MWRD-Phase II	2014, Short-term
Action 12.6 —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.								
Status Description:								
2021: Began planning for improvements to the Village Stormwater Management system to utilize ARPA funding.								
O		Ongoing	All	7, 13	Village Administration	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action 12.7 —Continue to support the countywide actions identified in this plan.								

Status Description:								
O		Ongoing	All	All	Village Administration	Low	General Fund	Short-term and Long-term
Action 12.8 —Actively participate in the plan maintenance strategy identified in this plan.								
Status Description:								
O		Ongoing	All	3, 4, 6	DHSEM Village Administration	Low	General Fund	Short-term
Action 12.9 —Consider participation in incentive-based programs such as the Community Rating System, Tree City, and StormReady.								
Status Description:								
2021: In 2021, the Village received its 30th Tree City Award. In 2021, began the process to update the Village's Community Rating System in 2022, including developing an action plan, Grant funding will be required to advance this project with outside consultant support.								
O		Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Village Administration	Low	General Fund	Long-term
Action 12.10 —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:								
2021: the Village continues to provide community outreach and preparedness education activities. In 2021, the Village updated the Stormwater management website to add the Inverness Food Hazard Map and FEMA Flood Map GIS. Current reviewing the NFIP Preliminary Food Insurance Study and Flood Insurance Rate Maps for the update to the Poplar Creek.								
O		Ongoing	Flooding	4, 6, 9	Village Administration	Low	General Fund	Short-term and ongoing
Action 12.11 —Where feasible, implement a program to record high water marks following high-water events.								
Status Description:								
2021: Seeking funding for this project.								
O		Ongoing	Flooding, Severe Weather	3, 6, 9	Village Administration	Medium	General Fund, FEMA Grant Funds (Public Assistance)	Long-term
Action 12.12 —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.								
Status Description:								
O		Ongoing	All	3, 4, 6, 10, 13	Contracted Engineer	Low	General Fund	Short-term
Action 12.13 —Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village's regulatory, financial and technical capability to implement mitigation actions.								
Status Description:								
O		Ongoing	All	1, 2, 7	Public Works	High	CIP component of general fund (if Implemented)	Long-term
Action 12.14 —Implement Culvert cleaning and widening program								
Status Description:								
2021: Continuing to provide educational material on the importance Culvert cleaning and maintenance.								
O		New	Flood	2, 7, 9	Village Administration	Medium/High	General Fund/Private	2022, Short-term
Action 12.15 — Joint Emergency Management								
Status Description:								
New	-	-	All	1, 2, 3, 4, 5, 6	-	Low	-	-
Action 12.16 — Emergency Management Plan								
Status Description:								
New	-	-	All	1, 2, 3, 4, 5, 6	-	Low	-	-
Action 12.17 — Storm Water System Survey								
Status Description:								
New	-	-	Flood	3	-	Medium	-	-
Action 12.18 —Emergency On-call List								

Status Description:								
New	-	-	All	3	-	Low	-	-
Action 12.19—EOC Improvements								
Status Description:								
New	-	-	All	3	-	High	-	-
(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.

As a small, staffed community, scheduling emergency training without impacting day-to-day operation is challenging. Utilizing on-line training and exercises options would benefit our community, including providing training and educational material for our private contractors.

6.1 Action 12.15

Mitigation Action	Joint Emergency Management
Year Initiated	2021
Applicable Jurisdiction	Village of Inverness
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Potential Funding Source	-
Estimated Cost	-
Benefits (loss avoided)	-
Projected Completion Date	-
Priority and Level of Importance (Low, Medium, High)	High Priority
Benefit Analysis (Low, Medium, High)	-
Cost Analysis (Low, Medium, High)	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
Actual Completion Date	-

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:	Ongoing: Partner with neighborhood communities on emergency response and continuity of operation plans.
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Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

Mitigated Hazards

X	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	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 12.16

Mitigation Action	Emergency Management Plan
Year Initiated	2021
Applicable Jurisdiction	Village of Inverness
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. • Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards. • Develop, promote, and integrate mitigation action plans. • Promote public understanding of and support for hazard mitigation.
Potential Funding Source	-
Estimated Cost	-
Benefits (loss avoided)	-
Projected Completion Date	-
Priority and Level of Importance (Low, Medium, High)	-
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)	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
Actual Completion Date	-

Recommended Mitigation Action/Implementation Plan and Project Description		
Action/Implementation Plan and Project Description:	Update Comprehensive Emergency Management Plan and include terrorism and catastrophic events.	
Mitigation Action and Project Maintenance		
Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

Mitigated Hazards

X	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	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

6.3 Action 12.17

Mitigation Action	Storm Water System Survey
Year Initiated	2021
Applicable Jurisdiction	Village of Inverness
Lead Agency/Organization	-
Supporting Agencies/Organizations	-
Applicable Goal	<ul style="list-style-type: none"> Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Potential Funding Source	-
Estimated Cost	-
Benefits (loss avoided)	-
Projected Completion Date	-
Priority and Level of Importance (Low, Medium, High)	Low 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:	GIS mapping for underground stormwater system, which is currently hand-drawn.
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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

6.4 Action 12.18

Mitigation Action	Emergency On-call List
Year Initiated	2021
Applicable Jurisdiction	Village of Inverness
Lead Agency/Organization	-
Supporting Agencies/Organizations	-
Applicable Goal	<ul style="list-style-type: none"> Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Potential Funding Source	-
Estimated Cost	-
Benefits (loss avoided)	-
Projected Completion Date	-
Priority and Level of Importance (Low, Medium, High)	Low Priority
Benefit Analysis (Low, Medium, High)	Low—Long-term benefits of the project are difficult to quantify in the short term.
Cost Analysis (Low, Medium, High)	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
Actual Completion Date	-

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:	Establish an emergency on call contract with a general contractor to provide assistance with equipment and operators
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Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

Mitigated Hazards

X	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	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

6.5 Action 12.19

Mitigation Action	EOC Improvements
Year Initiated	2021
Applicable Jurisdiction	Village of Inverness
Lead Agency/Organization	-
Supporting Agencies/Organizations	-
Applicable Goal	<ul style="list-style-type: none"> Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.
Potential Funding Source	-
Estimated Cost	-
Benefits (loss avoided)	-
Projected Completion Date	-
Priority and Level of Importance (Low, Medium, High)	Low Priority
Benefit Analysis (Low, Medium, High)	Low—Long-term benefits of the project are difficult to quantify in the short term.
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:	Improve the EOC facility equipment and supplies, Improve data connectivity and redundancy to make it more resilient to disruption. Create a formal plan for a back-up EOC Facility.
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Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

Mitigated Hazards

X	All Hazards
	Dam/Levee Failure
	Drought
	Earthquake
	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