

# 6 Orland Park 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.

**Dam/Levee Failure:** Areas within the Village that are vulnerable to the impacts of dam/levee failure are 159th Street (Orland Basin Dam), the Railroad (Collete Highland), LaGrange Rd (Triangle Dam), Wolf Road (Brook Hills Dam).

**Flood:** In the Village, 143rd St. SW Highway, Wolf Road, Highland Ave, and residential areas are all prone to flooding.

**Extreme Heat:** The Village has a high elderly population, making the jurisdiction particularly vulnerable to the impacts of extreme heat. In the Village, 30 percent of the population is over 55 years old and 25 percent of the population is over 60 years old.

**Drought:** In 2017 the Village joined the Illinois Public Works Mutual Aid Network (IPWMAN) and will continue to evaluate other options to expand mutual aid availability. Continuing participation and work to expand mutual-aid agreements with surrounding communities and agencies for hazard and disaster response.

**Hail:** The Village's farms (Boley and Stellwagen) and historical landmarks are vulnerable to the impacts of hail.

**High Winds:** The Village's farms (Boley and Stellwagen) and historical landmarks are vulnerable to the impacts of high winds.

**Earthquake:** Orland Square Mall and all other large retail centers in Orland are vulnerable to the impacts of an earthquake.

**Snow:** The Village's elderly and drivers are vulnerable to the impacts of snow. LaGrange Rd. which is the main thoroughfare for emergency vehicles is also vulnerable to heavy snow events. In addition, road access/plowing/removal of snow when reaching max storage capability poses issues for the Village.

**Blizzards:** The area's vulnerability to blizzards has led Orland to help State Rd as needed in emergency cases.

**Extreme Cold:** The Village has a high elderly population, making the jurisdiction particularly vulnerable to the impacts of extreme cold. In the Village, 30 percent of the population is over 55 years old and 25 percent of the population is over 60 years old.

**Ice Storms:** The Village's farms (Boley and Stellwagen) and historical landmarks are vulnerable to the impacts of ice storms.

**Tornado:** Orland Square Mall and all other large retail centers in Orland are vulnerable to the impacts of a tornado.

## 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: We had 16 snow events in the winter of 2021 raining from 1"-12". Three of the events were ice events. No recorded flash flooding in 2021.

## 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)
<b>Action O7.1</b> —Provide coordination of Hazard Mitigation Plan into local Village Plans.								
<b>Status Description:</b>								
O		Ongoing	All	All	Village	Low	Village	Short-term
<b>Action O7.2</b> —Continue the implementation of the Hazard Mitigation Plan and updating of all existing Village disaster and emergency response plans.								
<b>Status Description:</b>								
C		Ongoing	All	All	Village	Low	Village	Ongoing
<b>Action O7.3</b> —Maintain/upgrade municipal and other critical facilities and operations equipment.								
<b>Status Description:</b>								
O		Ongoing	All	1, 2, 3, 5, 13	Village	High	HMGP, PDM Village	Ongoing
<b>Action O7.4</b> —Upgrade/retrofit bridges to provide floodplain clearance and meet seismic design standards.								
<b>Status Description:</b>								
O		Ongoing	Flood, Severe Weather, Earthquake	1, 2, 6, 8	Village	High	HMGP, PDM Village	Long-term
<b>Action O7.5</b> —Evaluate dams for potential upgrades/retrofits.								
<b>Status Description:</b>								
O		Ongoing	All	1, 2, 3, 5, 6, 8	Village	Medium	HMGP, PDM Village	Short-term
<b>Action O7.6</b> —Continue and promote water conservation programs.								
<b>Status Description:</b>								
O		Ongoing	Dam Failure, Flood	1, 6, 8, 10, 11	Village	Low	Village	Ongoing
<b>Action O7.7</b> —Continue participation and work to expand mutual-aid agreements with surrounding communities and agencies for hazard and disaster response.								
<b>Status Description:</b>								
O		Ongoing	Drought	1, 2, 5, 6, 11	Village	Low	Village	Short-term
<b>Action O7.8</b> —Continue participation and compliance in the National Flood Insurance Program (NFIP) and consider participation in the Community Rating System (CRS).								
<b>Status Description:</b>								
R		Completed	Flood, Severe Weather	1, 2	Village	Low	Village	Completed
<b>Action O7.9</b> —Continue Village dam inspection program that includes updates to Operation and Maintenance Plans and Emergency Actions Plans for appropriate response.								
<b>Status Description:</b>								

O		Ongoing	Dam Failure, Floods, Severe Weather	1, 2, 10, 12	Village	Low	Village	Short-term
<b>Action 07.10</b> —Construct Parkview, Catalina, Caro Vista, Maycliff and other stormwater and flood control projects.								
<b>Status Description:</b>								
O		Ongoing	Flood, Severe Weather	1, 2, 8, 9, 12	Village	High	HMGP, PDM, Village	Ongoing
<b>Action 07.11</b> —Evaluate/relocate municipal storage capabilities for efficient response to hazards or disasters.								
<b>Status Description:</b>								
O		Ongoing	All	1, 2	Village	Medium	HMGP, PDM, Village	Short-term
<b>Action 07.12</b> —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.								
<b>Status Description:</b>								
O		Ongoing	Flood, Dam Failure, Severe Weather	13	Village	High	HMGP, PDM, Village, FEMA Hazard Mitigation Grants	Short- and long-term (depending on funding)
<b>Action 07.13</b> —Enforce and update codes/ordinances as needed to reduce or eliminate hazard damage through proper design and planning standards.								
<b>Status Description:</b>								
O		Ongoing	All	1, 2, 3, 4, 10	Village	High	HMGP, PDM Village	Long-term
<b>Action 07.14</b> —Evaluate/upgrade existing stormwater management system.								
<b>Status Description:</b>								
O		Ongoing	Dam Failure, Flood, Severe Weather, Severe Winter Weather	1, 2, 9, 12	Village	High	HMGP, PDM Village	Short- and long-term
<b>Action 07.15</b> —Evaluate/upgrade transportation infrastructure for appropriate emergency access and evacuation capabilities.								
<b>Status Description:</b>								
O		Ongoing	All	1, 2, 6, 8	Village	High	HMGP, PDM, Village	Short- and long-term
<b>Action 07.16</b> —Raise public awareness regarding local natural hazards.								
<b>Status Description:</b>								
O		Ongoing	All	1, 6, 8, 11, 13	Village	Low	HMGP, PDM, Village	Short- and long-term
<b>Action 07.17</b> —Modify, relocate or bury infrastructure to reduce disruption or loss of service during hazards or disasters.								
<b>Status Description:</b>								
O		Ongoing	All	1, 2, 4, 6, 8, 13	Village	High	HMGP, PDM, Village	Short- and long-term
<b>Action 07.18</b> —Continue to support the countywide actions identified in this plan.								
<b>Status Description:</b>								
O		Ongoing	All	All	Village	Low	General Fund	Short- and long-term
<b>Action 07.19</b> —Actively participate in the plan maintenance strategy identified in this plan.								
<b>Status Description:</b>								
O		Ongoing	All	3, 4, 6	DHSEM Village	Low	General Fund	Short-term
<b>Action 07.20</b> —Consider or maintain participation in incentive-based programs such as Tree City and StormReady.								
<b>Status Description:</b>								
R		Completed	All	3, 4, 5, 6, 7, 9	Village	Low	General Fund	Completed
<b>Action 07.21</b> —Where feasible, implement a program to record high water marks following high-water events.								
<b>Status Description:</b>								

O		Ongoing	Flooding, Severe Weather	3, 6, 9	Village	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
<b>Action 07.22</b> —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.								
<b>Status Description:</b>								
O		Ongoing	All	3, 4, 6, 10, 13	Village Development Services	Low	General Fund	Short-term
<b>Action 07.23</b> —Evaluate updated Bulletin 70 Rainfall Data and its impact on Village infrastructure (i.e. ponds, roadways, dams, storm sewers, and lift stations).								
<b>Status Description:</b>								
O		New	Dam/Levee Failure, Flood	3, 10	Village of Orland Park	\$500,000 to \$1,000,000; High	State, Federal, Local agencies	12 months to 24 months
<b>Action 07.24</b> —Streambank Stabilization & Flood Control Project along Tinley Creek								
<b>Status Description:</b>								
R		New	Dam/Levee Failure, Flood	2, 9, 13	MWRD	\$664,000; High	MWRD	Unknown
<b>Action 07.25</b> —Streambank Stabilization along Tinley Creek								
<b>Status Description:</b>								
O		New	Dam/Levee Failure, Flood	2, 9, 13	MWRD	\$3,806,000; High	MWRD	Unknown
<b>Action 07.26</b> —Expansion of Existing Detention Basin in Orland Park								
<b>Status Description:</b>								
O		New	Flood	2, 7, 9, 13	MWRD	\$600,000; High	MWRD	Unknown
<b>Action 07.27</b> —Green Infrastructure Project								
<b>Status Description:</b>								
O		New	Flood	13	MWRD	Unknown; High	MWRD	Unknown
<b>Action 07.28</b> —Grasslands Storm Basin Project								
<b>Status Description:</b>								
N	-	-	Flood	2, 3	Public Works	High	MWRD	December 2021
<b>Action 07.29</b> —Tinley Creek Streambank Stabilization								
<b>Status Description:</b>								
N	-	-	Flood	2, 3, 4, 6	Public Works	Engineering Department	MWRD	2023

**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 7.28

<b>Mitigation Action</b>	Grasslands Storm Basin Project
<b>Year Initiated</b>	2021
<b>Applicable Jurisdiction</b>	Village of Orland Park
<b>Lead Agency/Organization</b>	Public Works
<b>Supporting Agencies/Organizations</b>	MWRD
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> </ul>
<b>Potential Funding Source</b>	MWRD
<b>Estimated Cost</b>	700,000.00
<b>Benefits (loss avoided)</b>	Increased Storm Water Capacity
<b>Projected Completion Date</b>	December 2021
<b>Priority and Level of Importance (Low, Medium, High)</b>	Medium Priority
<b>Benefit Analysis (Low, Medium, High)</b>	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.
<b>Cost Analysis (Low, Medium, High)</b>	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).
<b>Actual Completion Date</b>	-

### Recommended Mitigation Action/Implementation Plan and Project Description

<b>Action/Implementation Plan and Project Description:</b>	The village proposes to expand this existing detention basin and to construct a dam in an area adjacent to the Grasslands Subdivision. The project will increase the total storm water storage of the detention basin to 22 acre-feet, provide the needed flood protection for the Grasslands Subdivision and provide detention for the future development of the existing agriculture land tributary to the basin.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
	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 7.29

<b>Mitigation Action</b>	Tinley Creek Streambank Stabilization
<b>Year Initiated</b>	2014
<b>Applicable Jurisdiction</b>	Village of Orland Park
<b>Lead Agency/Organization</b>	Engineering Department
<b>Supporting Agencies/Organizations</b>	MWRD
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	MWRD
<b>Estimated Cost</b>	\$600,000.00
<b>Benefits (loss avoided)</b>	Flooding
<b>Projected Completion Date</b>	2023
<b>Priority and Level of Importance (Low, Medium, High)</b>	High Priority
<b>Benefit Analysis (Low, Medium, High)</b>	High—Project will provide an immediate reduction of risk exposure for life and property.
<b>Cost Analysis (Low, Medium, High)</b>	Please indicate the Cost ratings for this Mitigation Action/Project. 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).
<b>Actual Completion Date</b>	-

### Recommended Mitigation Action/Implementation Plan and Project Description

<b>Action/Implementation Plan and Project Description:</b>	Please indicate the Cost ratings for this Mitigation Action/Project. 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).
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
	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