

## 6 Evanston 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:** We are not aware of any previous dam/levee failure.

**Flood:** Previously, we have experienced flooding. Oftentimes, this was flash flooding that was the result of torrential rain.

**Extreme Heat:** Temperatures routinely reach 90 F during months June, July, August, and September.

**Lightning:** Numerous fire-related incidents have resulted from lightning strikes. The most recent of which was just 1 week ago, knocking out about 15%-25% of electricity within Evanston

**Hail:** We have experienced minimal damage related to hail.

**Fog:** We have experienced minimal issues related to fog

**High Winds:** Numerous high wind-related events have resulted in physical damages to trees, homes, and local businesses

**Earthquake:** We are not aware of any previous earthquakes in our area.

**Drought:** We are not aware of any previous droughts in our area.

**Snow:** We have experienced numerous snow-related emergencies have related to downed power lines, compromised emergency response due to blocked/impassible roadways, health/safety concerns for population without heat, transportation, electricity due to power lines, etc.

**Blizzards:** We have experienced numerous snow-related emergencies have related to downed power lines, compromised emergency response due to blocked/impassible roadways, health/safety concerns for population without heat, transportation, electricity due to power lines, etc.

**Extreme Cold:** We have experienced numerous extreme weather-related events related to freezing temps, broken pipes, loss of heat due to power outages, etc. (health issue for homeless people).

**Ice Storms:** Previously, the City has experienced downed power lines.

**Tornado:** We have only experienced high wind events - no tornado activity is known to date.

### 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: Damage due to wind-driven events and lakefront flooding most commonly occurs in Evanston. In 2021, major storm activity resulted in large-scale power outages, several hundred trees damaged, and multiple homes suffered minor to moderate damage, the most notable damage occurring on August 11th. Over 6,000 residents sustained power outages, waiting as long as three days for their power to be restored. Over 300 trees suffered varying degrees of damage, resulting in damage to several homes in Evanston. Lakefront flooding was less significant than in January 2019, but minor flooding still resulted due to wind activity and high lake levels.

## 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 activities carried out during the reporting period?
- If no action was completed, why?
- Is the timeline for implementation of 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 E7.1</b> —Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structural damage. Give priority to properties with exposure to repetitive losses.								
<b>Status Description: In progress.</b>								
O	O	Ongoing	All	7, 13	City of Evanston	High	FEMA Hazard Mitigation Grants	Removed
<b>Action E7.2</b> —Continue to support the countywide actions identified in this plan.								
<b>Status Description: In progress.</b>								
O	O	Ongoing	All	All	City of Evanston	Low	General Fund	Short- and Long-term
<b>Action E7.3</b> —Actively participate in the plan maintenance strategy identified in this plan.								
<b>Status Description: Ongoing.</b>								
O	O	Ongoing	All	3, 4, 6	DHSEM, City of Evanston	Low	General Fund	Short-term
<b>Action E7.4</b> —Consider participation in incentive-based programs such as Tree City and StormReady.								
<b>Status Description: Ongoing.</b>								
O		Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	City of Evanston	Low	General Fund	Long-term
<b>Action E7.5</b> —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.								
<b>Status Description: Ongoing.</b>								
O	O	Ongoing	Flooding	4, 6, 9	City of Evanston	Low	General Fund	Removed
<b>Action E7.6</b> —Where feasible, implement a program to record high watermarks following high-water events.								
<b>Status Description: Ongoing.</b>								
O	O	Ongoing	Flooding, Severe Weather	3, 6, 9	City of Evanston	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
<b>Action E7.7</b> —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.								
<b>Status Description: Ongoing.</b>								
O	O	Ongoing	All	3, 4, 6, 10, 13	City of Evanston	Low	General Fund	Short-term
<b>Action E7.8</b> —New horn and audio warning sirens at Fire and Life Safety Headquarters, Fire Stations 2, 3, and 4, Evanston Township High School, and along the lakefront.								

<b>Status Description: 6 new Federal Signal sirens were installed in 2021 in Evanston, replacing all existing siren infrastructure.</b>								
C	O	Ongoing	All	5, 6	Office of Emergency Preparedness	\$100,000; Medium	General Fund	Short-term
<b>Action E7.9—Establish interoperable communications at the water treatment plant with local first responders.</b>								
<b>Status Description: New antennas were installed. The radio system has yet to be upgraded.</b>								
O	O	New	All	5	Water Production Bureau	\$50,000; Low	Local Funds, Grants	2019 or 2020
<b>Action E7.10—Implement Evanston/Skokie School District 65 GI at Orrington Elementary School Project.</b>								
<b>Status Description: In progress.</b>								
O	O	New	Unknown	Unknown	MWRD	Unknown	Unknown	Unknown
<b>Action E7.11—Improve cellular reception and communication in the EOC through the incorporation of a mobile broadband signal.</b>								
<b>Status Description: New connections were installed to improve communications within our primary EOC location.</b>								
C	O	New	All	12	Northwestern Police Department	\$10,000; Low	Grants and Local Funds	2019
<b>Action E7.12—Employ a Community Health Specialist in the EOC to better prepare and support the special needs and at-risk Evanston population.</b>								
<b>Status Description: One Community Health Specialist was hired to assist with the COVID-19 pandemic response and recovery efforts.</b>								
C	O	New	All	12	Health & Human Services Department	\$90,000; High	Grants	Continuous
<b>Action E7.13—Install the Evanston Library Backup Generator Addition and Finalize Sheltering Renovations.</b>								
<b>Status Description: Reliant on grant funding to make this purchase.</b>								
O	O	New	All	2, 6, 8	Evanston Public Library	\$1,282,801; High	TBD	2019-2021
<b>Action E7.14—Increase security measures for water plant through a new camera system</b>								
<b>Status Description: Additional cameras need to be purchased and installed to improve security measures.</b>								
O	O	New	Epidemic or pandemic, Hazardous Materials Incident		Public Works	\$520,000 plus \$16,000/year	Grants, Local Funds	2020
<b>Action E7.15—Migrate to an electronic access control system throughout the water plant and at the standpipes</b>								
<b>Status Description: In progress.</b>								
O	O	New	Hazardous Materials Incident		Evanston Fire Department	\$35,000 plus \$3,500 annually	Grants, Local Funds	2020
<b>Action E7.16—Implementation of SIEM (security information and event management platform)</b>								
<b>Status Description: Purchased and installed.</b>								
C	O	New	Widespread Power Outage		Information Technology	\$50,000 annually	Grants, City Funds	2020
<b>Action E7.17—Multi-factor authentication (MSA)</b>								
<b>Status Description: Implemented in November 2021.</b>								
C	New	-	Widespread Power Outage		Information Technology	\$3/user; estimated \$50,000/year	Grants, City Funds	2020
<b>Action E7.18—Groin wall installation/extension along the lakefront</b>								
<b>Status Description: Reliant on grant funding to complete this project.</b>								
O	New	-	Flood, Ice Storms, Coastal Erosion		Public Works Department	\$8,550,000	Local funding and grant opportunities	2021
<b>Action E7.19—Communications Vehicle</b>								
<b>Status Description: Reliant on grant funding to make this purchase.</b>								

O	New	-	All		Emergency Management - Fire Department	\$100,000	Local funds and grant opportunities	2021
<b>Action E7.20</b> —Provide fixed thermal event monitoring cameras with overlapping coverage of the water treatment plant								
<b>Status Description: In progress.</b>								
O	New	-	Widespread Power Outage		Water Department - Public Works	\$520,000 start-up and \$120/year	Local funds and grant opportunities	2021
<b>Action E7.21</b> —Develop a Continuity Plan(s) to support all city operations								
<b>Status Description: COOP/COG is being drafted to support the newly developed water plant COOP.</b>								
O	New	-	All		Water Department - Public Works	\$150,000	Local funds and grant opportunities	2020
<b>Action E7.22</b> —Electronic record-keeping system for managing the cross-connection control program and devices.								
<b>Status Description: In progress.</b>								
O	New	-	Dam/Levee Failure		Water Department - Public Works	\$15,000 \$5,000 yearly	Local funds and grant opportunities	2021
<b>Action E7.23</b> —Increase the number of cross-connection control staff								
<b>Status Description: In progress.</b>								
O	New	-	Flood		Water Department - Public Works	\$125,000/year	Local funds and grants	2021
<b>Action E7.24</b> —Installation of high-security locks and intrusion detection on off-site wholesale customer vaults								
<b>Status Description: In progress.</b>								
O	New	-	Epidemic or Pandemic		Public Works - Water Department	\$9,800	Local funds and grant opportunities	2020
<b>Action E7.25</b> —Zerto Disaster Recovery Service (Cloud-Based)								
<b>Status Description: In progress.</b>								
O	New	-	All		Emergency Management - Fire Department	\$150,000	Local funds and grant opportunities	
<b>Action E7.26</b> —Web Application Firewall (WAF) would allow our City to unpack incoming IT traffic and enable a greater level of security from a cyberattack/ransomware								
<b>Status Description: In progress.</b>								
O	New	-	Widespread Power Outage		Emergency Management - Fire Department	\$30,000	Local funds and grant opportunities	2021
<b>Action E7.27</b> —Rock wall installation								
<b>Status Description: Reliant on grant funding to complete this project.</b>								
O	New	-	Flood, Ice Storms, Coastal Erosion		Public Works	\$300,000	Local funds and grants	
<b>Action E7.28</b> —Barrier Systems								
<b>Status Description: Reliant on grant funding to complete this project.</b>								
O	New	-	Widespread Power Outage		Emergency Management - Fire Department	\$500,000	Local funds and grant opportunities	2020
<b>Action E7.29</b> —Preparedness kits for our Community Emergency Response Team to assist in responding to others in need within the Evanston community.								
<b>Status Description: Several items already purchased for existing go bags with more items yet to procure.</b>								
O	O	New	All		Emergency Management	\$10,000	Local funds and grant opportunities	2020
<b>Action E7.30</b> —Replace existing emergency sirens, some of which are currently inoperable.								
<b>Status Description: Completed in 2021.</b>								

C	O	New	All		Emergency Management - Fire Department	\$185,000	Local funds and grant opportunities	2020
<b>Action E7.31</b> —Repair of the existing rock wall along our lakefront (revetment)								
<b>Status Description: Reliant on grant funding to complete this project.</b>								
O	New	-	Flood, Ice Storms, Coastal Erosion		Public Works Department	\$5,700,000	Local funds and grant opportunities	2021
<b>Action E7.32</b> —Armor wall repair (revetment)								
<b>Status Description: Reliant on grant funding to complete this project.</b>								
O	New	-	Flood, Ice Storms, Coastal Erosion		Public Works Department	\$500,000	Local funds and grant opportunities	2025
<b>Action E7.33</b> —Replace ADA compliant ramps along the lakefront								
<b>Status Description: In progress.</b>								
O	New	-	Flood, Ice Storms, Coastal Erosion		Parks and Recreation Department	\$40,000	Local funds and grant opportunities	2021
(a) Ongoing indicates a 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.

The major mitigation projects completed in 2020 - 2021 include the following: COVID-19 mitigation in Evanston through emergency response and recovery efforts in the form of hiring additional HHS staff to help manage the crisis, public campaigning, testing, and vaccination programming; replacement of entire emergency siren systems with (6) Federal Signal sirens throughout Evanston to improve mass notification capability; implementation of Duo Multi-factor Authentication to improve system security; and implementation of SEIM (security information and event management platform).

**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.

Additional needs include grant funding to help address lakefront erosion, environmental preservation, and property conservation; grant funding to support training for all levels of city staff related to hazard awareness and hazard management during the prevention, protection, prevention, mitigation, response, and recovery phases of the disaster management cycle; grant funding to support the purchase of a communications vehicle and meridian barriers for event management; additional funding to support development and training of CERT members; etc.

## 6.1 Action E7.14

<b>Mitigation Action</b>	Increase security measures for water plant through new camera system
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Evanston, IL
<b>Lead Agency/Organization</b>	Public Works
<b>Supporting Agencies/Organizations</b>	Evanston Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grants, local funds
<b>Estimated Cost</b>	\$520,000 plus \$16,000/year
<b>Benefits (loss avoided)</b>	Protect critical infrastructure security and prevent water contamination or disruption of water supply source
<b>Projected Completion Date</b>	2020
<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>	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>	Provide fixed thermal event monitoring cameras with overlapping coverage of water treatment plant. In the past, there have been trespassers who have jumped the fence and where caught taking pictures of our water treatment facility. The antiquated and inefficient camera system was unable to account for all actions of the trespasser and, as a result, poses a significant security challenge.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

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

## 6.2 Action E7.15

<b>Mitigation Action</b>	Migrate to an electronic access control system throughout the plant and at the standpipes
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Evanston, IL
<b>Lead Agency/Organization</b>	Public Works Department
<b>Supporting Agencies/Organizations</b>	Evanston Fire Department Evanston, IL
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>	Grants, local funds
<b>Estimated Cost</b>	\$35,000 plus \$3,500 annually
<b>Benefits (loss avoided)</b>	Protection of critical infrastructure and public health/safety
<b>Projected Completion Date</b>	2020
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	Build on to electronic access control system being installed at Community Center; annual cost associated with equipment maintenance. Electronic access control will improve physical security design standards at multiple locations to include public access building and water plant (critical infrastructure).
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		



**Mitigated Hazards**

<b>All Hazards</b>	
	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
X	Hazardous Materials Incident

## 6.3 Action E7.16

<b>Mitigation Action</b>	Implementation of SIEM (security information and event management platform)
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Information Technology
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grants, city funds
<b>Estimated Cost</b>	\$50,000 annually
<b>Benefits (loss avoided)</b>	This platform can provide a system of record during an incident and provide forensics once anomalous behavior is recognized. SIEM establishes constant behavior for each user and will provide alerts once changes are recognized.
<b>Projected Completion Date</b>	2020
<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>	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>	Implementation of SIEM (security information and event management platform can provide a system of record during an incident and provide forensics once anomalous behavior is recognized. SIEM establishes constant behavior for each user and will provide alerts once changes are recognized. The collective annual cost of the software and hardware is \$50,000.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
	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
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.4 Action E7.17

<b>Mitigation Action</b>	Multi-factor authentication (MSA)
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, IL
<b>Lead Agency/Organization</b>	IT
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grants and city funds
<b>Estimated Cost</b>	\$3/user; estimated \$50,000/year
<b>Benefits (loss avoided)</b>	Multi-factor authentication will increase city and system security measures by mitigating account credential theft and ransomware.
<b>Projected Completion Date</b>	2020
<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>	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>	Multi-factor authentication (MSA) will increase city and system security measures by mitigating account credential theft and ransomware. This is currently the best way to mitigate account credential theft. The cost is \$3/user/month, with an estimated \$50,000 to start up system.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
	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
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.5 Action E7.18

<b>Mitigation Action</b>	Groin wall installation/extension along lake front
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, IL
<b>Lead Agency/Organization</b>	Public Works Department, Evanston, IL
<b>Supporting Agencies/Organizations</b>	Evanston Fire Department, Evanston, IL
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funding and grant opportunities
<b>Estimated Cost</b>	\$8,550,000
<b>Benefits (loss avoided)</b>	Protect the public from dangerous lake conditions, improve public safety, save beachfront property, prevent damages to ADA beach ramps, decrease costs related to routine cleanup from flooding, protect roadway from being washed out due to high waves, etc
<b>Projected Completion Date</b>	2021
<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>	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>	Increasing the number/length of Groin walls along the lakefront, a system designed to minimize impacts related to north and south wave patterns and lakefront erosion, will increase public safety by protecting the public from dangerous lake conditions to include high waves, significant undertow, and flooded roadways; save beachfront property; prevent damages to ADA compliant beach ramps; decrease costs related to routine cleanup from flooding; restore revenues previously generated from token sales allowing residents to use beachfront property, etc.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
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
X	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.6 Action E7.19

<b>Mitigation Action</b>	Communications Vehicle
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Emergency Management - Fire Department
<b>Supporting Agencies/Organizations</b>	Police Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$100,000
<b>Benefits (loss avoided)</b>	Promote interagency communications during both small and larger scale incidents
<b>Projected Completion Date</b>	2021
<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>	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>	A communications vehicle would promote interagency communications during both small and larger scale incidents for responses within our community. Due to a limitation in radio compatibility, and a limitation in funds to adequately address this situation, our city is in dire need of a vehicle to operate as a communications hub and unified operations post.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		



**Mitigated Hazards**

X	<b>All Hazards</b>
	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

## 6.7 Action E7.20

<b>Mitigation Action</b>	Provide fixed thermal event monitoring cameras with overlapping coverage of the water treatment plant
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Water Department - Public Works
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$520,000 start up and \$120/year
<b>Benefits (loss avoided)</b>	Provide fixed thermal event monitoring cameras with overlapping coverage of the water treatment plant designed to improve security measures for a critical infrastructure
<b>Projected Completion Date</b>	2021
<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>	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>	Provide fixed thermal event monitoring cameras with overlapping coverage of the water treatment plant will improve security measures for a critical infrastructure. The initial start up cost of equipment is \$150,00 and the annual maintenance is \$120/year.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
	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
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.8 Action E7.21

<b>Mitigation Action</b>	Develop a Business Continuity Plan
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Water Department - Public Works
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$150,000
<b>Benefits (loss avoided)</b>	By developing a Business Continuity Plan, the Water Department would have adequately analyzed their current conditions, effectively identified potential problems, and developed actions plans in the event of interrupted operations.
<b>Projected Completion Date</b>	2020
<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>	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>	By developing a Business Continuity Plan, the Water Department would have adequately analyzed their current conditions, effectively identified potential problems, and developed actions plans in the event of interrupted operations.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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

## 6.9 Action E7.22

<b>Mitigation Action</b>	Electronic record-keeping system for managing the cross-connection control program and devices
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Water Department - Public Works
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$15,000 \$5,000 yearly
<b>Benefits (loss avoided)</b>	Improved quality control measures through electronic record-keeping system for managing the cross-connection control program and devices. Improved quality control measures will help to ensure the appropriate levels of security are in place.
<b>Projected Completion Date</b>	2021
<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>	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>	Improved quality control measures through electronic record-keeping system for managing the cross-connection control program and devices. Improved quality control measures will help to ensure the appropriate levels of security are in place.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
X	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

## 6.10 Action E7.23

<b>Mitigation Action</b>	Increase the number of cross-connection control staff
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston
<b>Lead Agency/Organization</b>	Water Department (Public Works)
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grants
<b>Estimated Cost</b>	\$125,000/year
<b>Benefits (loss avoided)</b>	By increasing the number of cross-connection control staff, security is improved.
<b>Projected Completion Date</b>	2021
<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>	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>	By increasing the number of cross-connection control staff and the necessary junctions, the level of security is improved and a vital asset protected.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
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



## 6.11 Action E7.24

<b>Mitigation Action</b>	Installation of high-security locks and intrusion detection on off-site wholesale customer vaults
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Public Works - Water Department
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$9,800
<b>Benefits (loss avoided)</b>	Protect a critical infrastructure (the City of Evanston Water Plant) from invasive attacks. In turn, this will help to ensure no tampering occurs within our water supply and that residents are not adversely impacted from tainted water.
<b>Projected Completion Date</b>	2020
<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>	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>	Installation of high-security locks and intrusion detection on off-site wholesale customer vaults associated with the Evanston Water Plant will provide protections to a critical infrastructure from invasive attacks on our water supply. This increase in security will help to ensure the necessary protections of our water supply. The estimated startup cost is \$9,800, while the annual cost is \$120/year to cover equipment maintenance.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

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

## 6.12 Action E7.25

<b>Mitigation Action</b>	Zerto Disaster Recovery Service (Cloud-based)
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Information Technology
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funding and grants
<b>Estimated Cost</b>	\$150,000
<b>Benefits (loss avoided)</b>	The Zerto Disaster Recovery Service would protect our database servers and minimize signal injection attacks.
<b>Projected Completion Date</b>	2020
<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>	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>	<p>Cloud-based disaster recovery services are designed to protect database servers within the City and its critical infrastructure in the event of an emergency as well as from signal injection attacks. The City of Evanston has limited back up potential as it relates to off-site storage, thereby, making our IT data and infrastructure more vulnerable to an attack. The Zerto Disaster Recovery Service would protect our database servers and minimize signal injection attacks. This service would also provide off-site backup in case of a disaster. This cloud based service would allow for continued business operations and enable data recovery post-disaster. Additionally, critical records made available throughout the city would have adequate protections. Life Safety services, such as through our Computer Aided Dispatch (CAD), Firehouse program, evidence management and laser fiche. Real-time synchronization of data would occur in the iCloud and offer minimal interruption of data exchange. The cost of servers, networking equipment, and storage would run around \$150,000. Additional costs to run the program include monthly server charges. The City of Evanston has about 200 servers.</p>
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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

## 6.13 Action E7.26

<b>Mitigation Action</b>	Web Application Firewall (WAF) would allow our City to unpack incoming IT traffic and enable a greater level of security from a cyberattack/ransomware
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Information Technology
<b>Supporting Agencies/Organizations</b>	Emergency Management - Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$30,000
<b>Benefits (loss avoided)</b>	By enabling the City to monitor what comes into the system utilizing the WAF application, the City is better able to protect itself from malicious attacks through malware/ransomware, etc.
<b>Projected Completion Date</b>	2021
<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>	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>	By enabling the City to monitor what comes into the system utilizing the WAF application, the City is better able to protect itself from malicious attacks through malware/ransomware, etc. Our current firewall is unable to unpack incoming traffic and identify what is being transferred, therefore, making our servers more vulnerable to corrupt means. The initial startup cost is \$30,000, with \$10,000 for the device (hardware) and \$20,000 for the annual service made available through software.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
	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
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.14 Action E7.27

<b>Mitigation Action</b>	Rock wall installation
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Public Works - Evanston, IL
<b>Supporting Agencies/Organizations</b>	Evanston Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$300,000
<b>Benefits (loss avoided)</b>	Protect the public from dangerous lake conditions, improve public safety, save beachfront property, prevent damages to ADA beach ramps, decrease costs related to routine cleanup from flooding, protect roadway from being washed out due to high waves, etc.
<b>Projected Completion Date</b>	2021
<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>	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>	Increasing revetment barriers, designed to minimize impacts related to rising lake levels and lakefront erosion, will increase public safety by protecting the public from dangerous lake conditions and washed out roadways; save beachfront property; prevent damages to ADA compliant beach ramps; decrease costs related to routine cleanup from flooding; restore revenues previously generated from token sales allowing residents to use beachfront property, etc.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
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
X	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident



## 6.15 Action E7.28

<b>Mitigation Action</b>	Barrier Systems
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Emergency Management - Fire Department
<b>Supporting Agencies/Organizations</b>	Police Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$500,000
<b>Benefits (loss avoided)</b>	Barrier systems would help to promote event security offered during special events in town. Due to an increase in vehicular attacks, barrier systems would provide the added security needed during special events.
<b>Projected Completion Date</b>	2020
<b>Priority and Level of Importance (Low, Medium, High)</b>	High 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>	Barrier systems would help to promote event security offered during special events in town. Due to an increase in vehicular attacks, barrier systems would provide the added security needed during special events.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
2022		
2023		

**Mitigated Hazards**

<b>All Hazards</b>	
	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
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.16 Action E7.29

<b>Mitigation Action</b>	Preparedness kits for our Community Emergency Response Team to assist in responding to others in need within the Evanston community.
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Emergency Management
<b>Supporting Agencies/Organizations</b>	Fire Department, Health and Human Services, and Police Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$10,000
<b>Benefits (loss avoided)</b>	Community engagement promotes resilience which has proven to save lives. Preparedness kits for our Community Emergency Response Team necessary to assist in responding during a disaster to others in need within the Evanston community.
<b>Projected Completion Date</b>	2020
<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>	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>	Providing preparedness kits for our Community Emergency Response Team is necessary to assist in responding to others in need during a disaster. By providing our CERT membership with the tools they need to respond will only improve our potential to assist as a community when the need arises.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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

## 6.17 Action E7.30

<b>Mitigation Action</b>	Replace existing sirens, some of which are inoperable
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Emergency Management - Fire Department
<b>Supporting Agencies/Organizations</b>	Communications - Police Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$185,000
<b>Benefits (loss avoided)</b>	Promote more reliable communications within the City of Evanston in the event of an emergency
<b>Projected Completion Date</b>	2020
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	Promote more reliable communications within the City of Evanston in the event of an emergency by providing a more reliable mass communication system. One of the 6 sirens we currently have in town are inoperable and it is cost ineffective to replace due to the needed upgrade.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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

## 6.18 Action E7.31

<b>Mitigation Action</b>	Repair of existing rock wall (revetment)
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Public Works Department - Evanston, IL
<b>Supporting Agencies/Organizations</b>	Evanston Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$5,700,000
<b>Benefits (loss avoided)</b>	Protect the public from dangerous lake conditions, improve public safety, save beachfront property, prevent damages to ADA beach ramps, decrease costs related to routine cleanup from flooding, protect roadway from being washed out due to high waves, etc.
<b>Projected Completion Date</b>	2021
<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>	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>	Increasing revetment barriers, designed to minimize impacts related to rising lake levels and lakefront erosion, will increase public safety by protecting the public from dangerous lake conditions and washed out roadways; save beachfront property; prevent damages to ADA compliant beach ramps; decrease costs related to routine cleanup from flooding; restore revenues previously generated from token sales allowing residents to use beachfront property, etc.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
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
X	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident



## 6.19 Action E7.32

<b>Mitigation Action</b>	Armor wall repair (revetment)
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston Evanston, IL
<b>Lead Agency/Organization</b>	Public Works Department Evanston, IL
<b>Supporting Agencies/Organizations</b>	Evanston Fire Department Evanston, IL
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$500,000
<b>Benefits (loss avoided)</b>	Protect the public from dangerous lake conditions, improve public safety, save beachfront property, prevent damages to ADA beach ramps, decrease costs related to routine cleanup from flooding, protect roadway from being washed out due to high waves, etc.
<b>Projected Completion Date</b>	2025
<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>	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>	Increasing revetment barriers, designed to minimize impacts related to rising lake levels and lakefront erosion, will increase public safety by protecting the public from dangerous lake conditions and washed out roadways; save beachfront property; prevent damages to ADA compliant beach ramps; decrease costs related to routine cleanup from flooding; restore revenues previously generated from token sales allowing residents to use beachfront property, etc.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
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
X	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.20 Action E7.33

<b>Mitigation Action</b>	Replace ADA compliant ramps along lakefront
<b>Year Initiated</b>	2020
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	Parks and Recreation Department
<b>Supporting Agencies/Organizations</b>	Evanston Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>• Involve stakeholders to enhance the local capacity to mitigate, prepare for, and respond to the impacts of natural hazards.</li> <li>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Local funds and grant opportunities
<b>Estimated Cost</b>	\$40,000
<b>Benefits (loss avoided)</b>	Ensure ADA accessibility and safety to public beach front
<b>Projected Completion Date</b>	2021
<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>	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>	Rebuild ADA compliant beach ramps for all Evanston swimming beaches, totaling 5 ramps located at Lee Beach, Lighthouse Beach, Clark Street Beach, Greenwood Beach and South Beach.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020	New	
2021		
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
X	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
	Widespread Power Outage
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.21 Action E7.34

<b>Mitigation Action</b>	Elliot Park Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grants
<b>Estimated Cost</b>	\$5,700,000
<b>Benefits (loss avoided)</b>	Protect lakefront park, one restroom building, one lakefront operations building, and adjacent roadways and residences from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Rehabilitate the existing revetment at Elliot Park to protect it from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to park, park buildings, roadway, and adjacent residents are anticipated to exceed project cost if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.22 Action E7.35

<b>Mitigation Action</b>	Greenwood Beach Headland Construction
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$6,600,000
<b>Benefits (loss avoided)</b>	Protect lakefront park, beach, one restroom and adjacent roadways and residences from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Construct headlands to protect greenwood beach from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to park, park buildings, roadway, and adjacent residents are anticipated to exceed project cost if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident



## 6.23 Action E7.36

<b>Mitigation Action</b>	Sheridan Road Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$5,220,000
<b>Benefits (loss avoided)</b>	Protect roadway and critical infrastructure from waver overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Rehabilitate the existing revetment at Sheridan Road east of Calvary Cemetery to protect it from wave attacks and high water levels on Lake Michigan. The benefit-cost analysis is 2.06.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.24 Action E7.37

<b>Mitigation Action</b>	Water Plant Flood Barrier Installation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$532,000
<b>Benefits (loss avoided)</b>	Protect critical infrastructure and improve community resiliency as a result of climate change
<b>Projected Completion Date</b>	2025
<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>	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>	Construct a flood barrier to protect the east end of the Evanston Water Plant from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the water plant is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.25 Action E7.38

<b>Mitigation Action</b>	Lee Street Beach Stabilization
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$905,000
<b>Benefits (loss avoided)</b>	Protect critical infrastructure and improve community resiliency as a result of climate change
<b>Projected Completion Date</b>	2025
<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>	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>	Stabilize and protect the existing beach from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the beach, park, and adjacent roadway and residences is anticipated to exceed project cost if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.26 Action E7.39

<b>Mitigation Action</b>	Clark Square Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$2,360,000
<b>Benefits (loss avoided)</b>	Protect lakefront park from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Rehabilitate the existing revetment at Sheridan Square to protect it from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the park is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident



## 6.27 Action E7.40

<b>Mitigation Action</b>	Lighthouse Beach Dune Management
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding and city resources
<b>Estimated Cost</b>	\$340,000
<b>Benefits (loss avoided)</b>	Protect lakefront park from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2024
<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>	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>	Install plantings to better establish and manage the dune at Lighthouse Beach. Formal BCA is not available. Damage to the park is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.28 Action E7.41

<b>Mitigation Action</b>	Garden Park Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding and city resources
<b>Estimated Cost</b>	\$850,000
<b>Benefits (loss avoided)</b>	Protect lakefront park, adjacent roadway, and adjacent residences from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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</b>	Rehabilitate the existing revetment at Garden Park to protect it from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the park, adjacent roadway, and adjacent residences is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.29 Action E7.42

<b>Mitigation Action</b>	South Boulevard Beach Dune Establishment and Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$2,400,000
<b>Benefits (loss avoided)</b>	Protect lakefront park, adjacent roadway, and adjacent residences from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Establish a dune and rehabilitate the existing revetment at South Boulevard Beach to protect it from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the beach, adjacent roadway, and adjacent residences is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.30 Action E7.43

<b>Mitigation Action</b>	Clark Street Beach Dune Management
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$810,000
<b>Benefits (loss avoided)</b>	Protect lakefront park from wave overtopping, flooding and erosion. Enhance existing migratory bird habitat.
<b>Projected Completion Date</b>	2024
<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>	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>	Install plantings to better establish and manage the dune at Clark Street Beach. Formal BCA is not available. Damage to the beach and adjacent park is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident



## 6.31 Action E7.44

<b>Mitigation Action</b>	Dog Beach Stabilization and Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$2,980,000
<b>Benefits (loss avoided)</b>	Stabilize the beach and adjacent park and roadway/parking area from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Stabilize the beach and rehabilitate the existing revetment at the Dog Beach to protect it from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the park, and adjacent roadway/parking is anticipated to exceed project cost if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.32 Action E7.45

<b>Mitigation Action</b>	Church Street Launch Ramp Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$510,000
<b>Benefits (loss avoided)</b>	Protect lakefront park from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Rehabilitate the existing revetment at the Church Street Launch Ramp to protect it from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the park is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.33 Action E7.46

<b>Mitigation Action</b>	Dawes Park Revetment Rehabilitation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$1,350,000
<b>Benefits (loss avoided)</b>	Protect lakefront park from wave overtopping, flooding and erosion.
<b>Projected Completion Date</b>	2025
<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>	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>	Rehabilitate the existing revetment at Dawes Park to protect it from wave attacks and high water levels on Lake Michigan. Formal BCA is not available. Damage to the park is anticipated to exceed project costs if a significant storm event occurs.
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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
X	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

## 6.34 Action E7.47

<b>Mitigation Action</b>	Evanston Service Center Emergency Generator Installation
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Public Works
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	Not available at this time
<b>Benefits (loss avoided)</b>	Improve continuity/reliability of Streets, Sanitation, Forestry, Greenways, and Facilities Management service to community during emergency events
<b>Projected Completion Date</b>	2024
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	Install an emergency generator at the Evanston Service Center. Formal BCA is not available. If service is interrupted during a major storm event damage to the community will likely be extensive.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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



## 6.35 Action E7.48

<b>Mitigation Action</b>	Evanston Water Utility Electrical Reliability and Emergency Backup Power Improvements
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Public Works
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$7,800,000
<b>Benefits (loss avoided)</b>	Improve continuity/reliability of treated drinking water supply for Evanston and wholesale water customers (over 400,000 population in 10 cities)
<b>Projected Completion Date</b>	2025
<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>	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>	Replacement of the outdated medium voltage switchgear and generator needed to provide emergency backup power at the Evanston Water Utility. Formal BCA is not available. If service is interrupted during a major storm event there will be significant health and safety implications.
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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
	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

## 6.36 Action E7.49

<b>Mitigation Action</b>	Evanton Water North and South Standpipes Pumping Reliability
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Public Works
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$550,000
<b>Benefits (loss avoided)</b>	Improve continuity/reliability of treated drinking water supply for Evanston and Skokie
<b>Projected Completion Date</b>	2025
<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>	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 scope of this project is to make pumping and mixing improvements at the North and South Standpipes to improve water quality in the distribution system to better meet regulatory requirements. Formal BCA is not available. If pumping is disrupted then there will be a decrease in water quality provided to Skokie and Evanston. In addition, communities may not be able to meet fire flow requirements.
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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
	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

## 6.37 Action E7.50

<b>Mitigation Action</b>	Evanston Water Utility 36"/42" Intake Replacement
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Public Works
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> </ul>
<b>Potential Funding Source</b>	Grant Funding
<b>Estimated Cost</b>	\$40,044,000
<b>Benefits (loss avoided)</b>	Improve continuity/reliability of treated drinking water supply for Evanston and wholesale water customers (over 400,000 population in 10 cities)
<b>Projected Completion Date</b>	2022
<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>	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>	<p>This project will replace the existing 36"/42" intake with a new 60" intake. The existing intake is over 100 years old, and the capacity has substantially decreased over time. Completion of this project is necessary so that the water utility can provide its full rated capacity with the largest unit out of service. The new intake will have a heating system installed to prevent icing. This line item is for construction services. Formal BCA is not available. Improvement is necessary for the Evanston Water Utility to meet its rated treatment capacity with one of three intakes out of service.</p>
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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
	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

## 6.38 Action E7.51

<b>Mitigation Action</b>	Communications Vehicle
<b>Year Initiated</b>	2023
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Police Department
<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>	Grant Funding
<b>Estimated Cost</b>	\$1,000,000
<b>Benefits (loss avoided)</b>	Improve incident management through improved communications across various jurisdictions when managing a large-scale incident.
<b>Projected Completion Date</b>	2024
<b>Priority and Level of Importance (Low, Medium, High)</b>	High 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>	This vehicle will support communications across a variety of jurisdictions, bridging communications between a variety of agencies using different radios and frequencies. This vehicle would be used to support interoperable communications with mutual aid companies and support critical operations during large-scale incident management. Formal BCA is not available. Benefits would include improving communications, coordination, and hazard mitigation during an interagency response; thereby, promoting the ability to respond to an incident. Improving response capabilities can save lives and property. An additional benefit could include decreasing City liability and insurance premiums.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	New	
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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



## 6.39 Action E7.52

<b>Mitigation Action</b>	Meridian Barriers
<b>Year Initiated</b>	2021
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Police and PRCS Department
<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>	Grant Funding
<b>Estimated Cost</b>	\$700,000
<b>Benefits (loss avoided)</b>	The barriers will secure key areas around the perimeter and protect the venue from unwanted entry. Archer 1200 barriers are ideal for stadiums and event spaces because they can be specifically deployed to allow foot traffic and emergency vehicle access wh
<b>Projected Completion Date</b>	2025
<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>	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>	"Archer 1200 Barriers are mobile, modular and easily moved by one person to allow emergency vehicle access or to react to developing needs. The unique security solution allows for the ability to address problem areas as well as harden perimeters in response to changing threat situations. The Meridian Rapid Defense barriers help protect areas at local events from vehicle intrusion, which has been known to impact pedestrians and the facility from danger. Formal BCA is not available. Improvement is necessary for the City of Evanston to provide event security at a more affordable price for local vendors.
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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
	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

## 6.40 Action E7.53

<b>Mitigation Action</b>	CERT Programming
<b>Year Initiated</b>	2014
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	City and Grant Funding
<b>Estimated Cost</b>	\$15,000
<b>Benefits (loss avoided)</b>	People who go through CERT training have a better understanding of the potential threats to their home, workplace, and community and can take the right steps to lessen the effects of these hazards on themselves, their homes, or their workplace.
<b>Projected Completion Date</b>	Ongoing
<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>	Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	People who go through CERT training have a better understanding of the potential threats to their home, workplace, and community and can take the right steps to lessen the effects of these hazards on themselves, their homes, or their workplace.
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019		
2020		
2021	Ongoing	
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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

## 6.41 Action E7.54

<b>Mitigation Action</b>	Virtual EOC operations platform
<b>Year Initiated</b>	2019
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Fire Department
<b>Supporting Agencies/Organizations</b>	City of Evanston IT Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	City and Grant Funding sources
<b>Estimated Cost</b>	\$75,000
<b>Benefits (loss avoided)</b>	To promote community safety, health, and information sharing during medium to large size emergencies.
<b>Projected Completion Date</b>	2024
<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>	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>	<p>In a crisis situation, the best decisions are made with a full understanding of events as they are happening. A virtual emergency operations platform would deliver the dynamic workflows and real-time situational awareness required to maximize operational effectiveness for effective critical incident management, empowering real-time collaboration, and efficient tracking of data and resources. This tool would need to meet the needs of each city department, be user-friendly, and promote efficient operations necessary to promote response efforts, recovery operations, and hazard mitigation. Hazard mitigation efforts ahead of disaster recovery average a 6:1 ratio, where every \$1 spent on mitigation efforts saves \$6 spent during disaster recovery efforts. Supporting data can be found through the following links: <a href="https://www.pewtrusts.org/en/research-and-analysis/articles/2018/01/11/every-\$1-invested-in-disaster-mitigation-saves-\$6">https://www.pewtrusts.org/en/research-and-analysis/articles/2018/01/11/every-\$1-invested-in-disaster-mitigation-saves-\$6</a> AND <a href="https://www.fema.gov/sites/default/files/2020-07/fema_mitsaves-factsheet_2018.pdf">https://www.fema.gov/sites/default/files/2020-07/fema_mitsaves-factsheet_2018.pdf</a></p>
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### Mitigation Action and Project Maintenance

Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

**Mitigated Hazards**

X	<b>All Hazards</b>
	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

## 6.42 Action E7.55

<b>Mitigation Action</b>	Underground Fiberoptic network to Utility Plant
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston IT Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> </ul>
<b>Potential Funding Source</b>	City Grant Funding resources
<b>Estimated Cost</b>	Unknown at this time
<b>Benefits (loss avoided)</b>	TBD
<b>Projected Completion Date</b>	TBD
<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>	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>	TBD
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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
	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



## 6.43 Action E7.56

<b>Mitigation Action</b>	Disaster Recovery Operation in the Cloud
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston IT Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	City and Grant Funding
<b>Estimated Cost</b>	TBD
<b>Benefits (loss avoided)</b>	TBD
<b>Projected Completion Date</b>	TBD
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	TBD

### 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
	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

## 6.44 Action E7.57

<b>Mitigation Action</b>	Virtra Police Simulator
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Police Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	City and Grant Funding
<b>Estimated Cost</b>	\$50,000
<b>Benefits (loss avoided)</b>	Virtra improves officers' critical decision making skills by training in a scenario based realistic training environment. Officers are taught critical concepts that improve de-escalation techniques, communication skills, and use of force decision making. A
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	VirTra helps prepare law enforcement officers for real-life incidents using simulation technology. Scenarios are filmed in superior quality with extensive branching options increasing the realism while allowing scenarios to unfold based on decisions. Formal BCA is not available. Benefits would include improving officer response and decision making in high risk response and encounters. Improving response capabilities and decision-making can save lives. Additional benefits could include decreasing City liability. The link is for a list of settlement amounts for police misconduct cases including deadly shootings and aggressive encounters: <a href="https://policefundingdatabase.tminstitutelf.org/misconductsettlements">https://policefundingdatabase.tminstitutelf.org/misconductsettlements</a> . Response to Active Threats, Mental Health Crisis, de-escalation and active shooter situations.
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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
	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

## 6.45 Action E7.58

<b>Mitigation Action</b>	Equipment for mental health crisis response
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Police Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	City and Grant Funding
<b>Estimated Cost</b>	\$15,000
<b>Benefits (loss avoided)</b>	Improved response to these mental health incidents provides us with additional options to successfully resolve a situation without the need for lethal force, improving Life Safety options for our community.
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	Increasing options for response to emotionally disturbed persons, including non-lethal options for a suicidal subject armed with a knife. Building on programs used by NYPD and Elgin PD, adding equipment to provide trained officers additional resources in handling a suicide by cop type situation when the person suffering from a mental crisis is armed with a knife or other similar weapon. Includes the options of a refillable water extinguisher, low energy less-lethal impact rounds, a restraint system, and a specially made pole used to secure someone from a distance. Formal BCA is not available at this time.
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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
	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

## 6.46 Action E7.59

<b>Mitigation Action</b>	Surveillance vehicles
<b>Year Initiated</b>	2022
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Police Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	City and Grant Funding
<b>Estimated Cost</b>	\$60,000
<b>Benefits (loss avoided)</b>	Improved offender identification to prevent repeat crimes, overt vehicles are a crime deterrent, and the mobility of the vehicles makes them easily and quickly deployable.
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	Outfit one covert and one overt surveillance vehicle with camera equipment for a mobile observation post. Formal BCA is not available at this time.
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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
	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



## 6.47 Action E7.60

<b>Mitigation Action</b>	Infectious disease mitigation through an array of public health interventions including the prevention of water-borne diseases for visitors at the City beaches
<b>Year Initiated</b>	TBD
<b>Applicable Jurisdiction</b>	City of Evanston, Evanston, IL
<b>Lead Agency/Organization</b>	City of Evanston Health and Human Service Department
<b>Supporting Agencies/Organizations</b>	City of Evanston Fire Department
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>• Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <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>• Develop, promote, and integrate mitigation action plans.</li> <li>• Promote public understanding of and support for hazard mitigation.</li> </ul>
<b>Potential Funding Source</b>	TBD
<b>Estimated Cost</b>	TBD
<b>Benefits (loss avoided)</b>	TBD
<b>Projected Completion Date</b>	TBD
<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>	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.
<b>Actual Completion Date</b>	

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

<b>Action/Implementation Plan and Project Description:</b>	TBD
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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
X	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