

# ANNEX A

## STATE OF MAINE - EMERGENCY OPERATIONS PLAN 2026

### Annex A: Hazards & Threats Risk Assessment



March 2026



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## Record of Changes

Annex A: Hazards & Threats Risk Assessment of the Emergency Operations Plan is meant to be continuously updated and revised to reflect lessons learned during incident response or exercise play. Change annotations are managed by the Preparedness and Homeland Security Division's Senior Planner to ensure continuity across multiple planning documents.

Change #	Page	Date	Contact Info	Description

## Annex Maintenance and Distribution

This annex functions as a primary reference guide within the SEOC during emergency activations. The annex shall be reviewed annually to ensure consistency with current plans, procedures, equipment, record-keeping systems, display devices, and communication capabilities.

**Updates:** The Preparedness and Homeland Security Division's Senior Planner, in coordination with the State Hazard Mitigation Planner, update this living document based on best practices, formal after-action reviews, and evolving operational needs.

**Validation:** As updates are distributed, The MEMA Preparedness and Homeland Security Division, coordinated by the State Training Officer and State Exercise Officer, will provide training sessions or exercises to validate and disseminate changes.

## Section 1: Introduction/Situation

The State of Maine is susceptible to a diverse array of natural, technological, and human-caused hazards. Such phenomena pose substantial threats to the populace, critical infrastructure, and the continuity of essential government operations. This Risk Assessment Annex outlines these specific vulnerabilities based upon historical data, predictive modeling, and comprehensive state intelligence. A list of references used to compile this data has been included in the inset box (right).

Each hazard is systematically categorized to facilitate the prioritization of emergency management planning, resource allocation, and strategic mitigation efforts. Ultimately, this document functions as the foundational framework for the state's Emergency Operations Plan, as well as the development of various procedures, training packages, and exercises to validate plans and prepare for future events.

Historical data underscores the persistent vulnerability of the state to large-scale disaster events. Between the years 2000 and 2025, the federal government issued 44 disaster declarations for the State of Maine under the Stafford Act, encompassing a wide spectrum of incidents. Specifically, the federal government declared 22 severe storm and flooding events, which included standard flooding, coastal inundation, landslides, tornadoes, snowmelt complications, and ice jams. Furthermore, 16 winter weather declarations were issued, covering basic snow events, extreme winter weather, and complex severe winter storms that induced flood conditions. The state also received three declarations for tropical storm events and three declarations in response to COVID-19 pandemic conditions.

Additionally, environmental records indicate that the state experienced 13,874 wildfire events during this 25-year

### REFERENCED DATA SETS

2013 | 2018 State Risk  
Assessment

2023 State Hazard  
Mitigation Plan

FEMA Disaster  
Declarations 2000 – 2025

Maine Department of  
Environmental Protection

Maine Geological Survey:  
Earthquakes

Maine Population  
Vulnerability [FEMA]

Maine Risk Data [FEMA]

Maine State EOC  
Activations

MEMA Hazard & Threat  
Stakeholder Survey Results

National Interagency Fire  
Center, InFORM Fire  
Occurrence Data Records

National Oceanic and  
Atmospheric  
Administration Datasets  
2000 – 2025

operational period, according to data from the National Interagency Fire Center. While emergency personnel successfully contained the majority of these blazes to under 10 acres, fires expanded beyond this threshold on 129 separate occasions, with the largest encompassing 124 acres. Although the majority of wildfires are fairly small, averaging .8 acres, ongoing drought conditions (as of 2026) and various meteorological trends suggest that future fires could substantially threatening surrounding forested regions and residential communities.

Maine also experiences consistent, albeit minor, seismic activity. Geologists recorded 125 earthquakes exhibiting a magnitude of 2.0 or greater over this same chronological timeframe. The data identifies 103 of these events between a 2.0 and 2.9 magnitude; such minor seismic events generally produce subtle physical tremors and result in negligible structural damage. Furthermore, geologists recorded 15 events ranging between a 3.0 and 3.9 magnitude, four events between a 4.0 and 4.9 magnitude, and three distinct events between a 5.0 and 6.0 magnitude. Notably, a 5.4 magnitude earthquake centered near Quebec City in 2005 generated noticeable shockwaves extending over 185 miles south into Augusta, illustrating the potential for transboundary seismic impacts.

Technological and human-caused hazards present distinct, complex operational challenges. Over the preceding 25 years, the Maine Department of Environmental Protection has taken over 64K reports of hazardous material spills under the threshold of 500 gallons or pounds. Additionally, there were over 390 reports of incidents over 500 gallons or pounds, consisting of oil, fuel, and other hazardous materials. While smaller incidents can be quickly contained, large-scale contamination events have the capacity to disrupt primary transportation networks, degrade natural resources, and necessitate the deployment of highly specialized environmental remediation teams.

Shifting climatological patterns appear to be amplifying both the frequency and the severity of numerous disasters across the region. The state's economy is heavily reliant upon agriculture, tourism, and manufacturing; consequently, extended disruptions to these critical sectors may cause massive financial damage and threaten long term social and economic stability. Emergency planners can use this assessment to build resilience across all community groups and promote a coordinated response from multiple agencies to any crisis. This process turns possible risks into clear, actionable plans.

This document details the findings of the Maine Emergency Management Agency 2025 Hazard and Threat Analysis.

## Section 2: Foundational Elements

### Purpose

The purpose of this annex is to identify and evaluate hazards within the State of Maine and aid in the development of mitigation options that prevent injuries, illnesses, or damage to people, property, and the environment. This risk assessment, guided by the Federal Emergency Management Agency (FEMA) Threat and Hazard Identification and Risk Assessment (THIRA) process, identifies hazards, guides resource allocation, and forms the basis for the development of the Emergency Operations Plan and its subordinate annexes.

### Scope

This annex applies to all emergency management personnel, state departments, and partner organizations operating pursuant to the provisions of Title 37-B: Defense, Veterans and Emergency Management. This inclusive scope encompasses law enforcement agencies, fire services, public works departments, and emergency medical services. Private sector partners and non-governmental organizations can use this document to synchronize their internal response protocols with overarching state initiatives.

### Objectives

The MEMA Hazard and Threat Risk Assessment documented in this annex, follows established FEMA guidelines to accomplish these objectives:

- Identify and catalog potential hazards that pose a viable threat to the state.
- Determine the probability and the anticipated operational impact of each specific threat.
- Prioritize organizational response capabilities, establish training exercise parameters, and streamline resource allocation requests.
- Establish baseline analytical metrics for the execution of future disaster readiness evaluations.

## Section 3: Execution

### Risk Identification Process

On May 19, 2025, the Hazard and Threat Working Group reviewed the May 7, 2025, survey results and historical data from various sources. The group's objective was to identify potential hazards and threats relevant to Maine, establish an initial prioritized ranking, and conduct a preliminary analysis of their likelihood and potential impact. This analysis informs any Emergency Operations Plan update.

The working group employed a standard risk assessment process, as identified by FEMA. This process considers quantitative or qualitative risk estimates along with social, environmental, cost, temporal, and other factors. It determines a recommended course of action to mitigate or accept risk (FEMA Threat and Hazard Identification and Risk Assessment Guide: Comprehensive Preparedness Guide 201, and the FEMA National Risk Index). This assessment emphasized a qualitative approach, relying on previous work from 2013 and 2018, and subject matter expert input to identify and categorize hazards and threats.

During the Hazard and Threat Analysis surveys and workshops, subject matter experts were presented with targeted questions to gather, evaluate, and refine critical data. Refer to **Appendix C: 2025 Hazard & Threat Questions** to review individual questions. Responses were compared to historical incident data, meteorological reports disseminated by the National Weather Service, intelligence briefings provided by the Maine State Police, and localized vulnerability assessments. Based on this analysis, hazard risks were quantified using two primary analytical metrics.

**Probability:** The statistical likelihood of an event occurring is classified as Almost Certain, Likely, Possible, Unlikely, or Rare.

- **Almost Certain:** This event presents a high probability of impacting the state within the next year. Historical data, current conditions in Maine, and clear precursor indicators suggest an imminent occurrence.
- **Likely:** This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

- **Possible:** This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.
- **Unlikely:** These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.
- **Rare:** This event requires unusual circumstances to impact the state. Historical records show no precedent for this type of event in Maine.

**Impact:** The potential operational and structural consequences of an event are classified as Insignificant, Negligible, Moderate, Extensive, or Significant.

- **Insignificant:** An event causes minimal operational impact, a non-sensitive data breach, or minor and localized property damage. Normal operations continue. Local outlets limit news coverage.
- **Negligible:** An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.
- **Moderate:** An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.
- **Extensive:** An event causes widespread and severe operational impact, a sensitive data breach undermining core interests, extensive property damage causing major operational disruptions, or impaired organizational function. News coverage generates intense national scrutiny and potential operational restrictions.
- **Significant:** An event causes considerable ongoing operational impact, a sensitive data breach impacting core functions, catastrophic property damage causing a fundamental operational breakdown, or critical systematic failures halting core activities. News coverage initiates federal involvement, creates sustained negative media, and causes severe operational limitations.

## Risk Assessment Results

Once the analysis was completed, hazards were then assigned to one of three tiers: High, Medium, and Low.

- **HIGH RISK:** Hazards or threats that pose a significantly elevated probability of harm or impact to the community and therefore require an increased planning and preparedness focus. These hazards and threats will be the primary focus of our risk management endeavors, receiving priority in all exercise and training events.
- **MEDIUM RISK:** Hazards or threats that have a moderate chance of occurrence and moderate potential for harm or disruption. These hazards or threats necessitate continuous monitoring. Medium risk hazards and threats will be incorporated into exercise and training events on a routine basis to ensure that planning and preparedness measures remain effective.
- **LOW RISK:** Hazards or threats with a low chance of occurrence and low potential for harm or disruption to a community. Planned risk response actions are periodically reviewed to ensure that planning and preparedness measures remain effective.

The following pages catalog specific operational data for each identified hazard. This data includes a detailed threat description, distinct trigger events, clear warning signs, and potential consequence descriptions. The data further outlines specific risk response actions, Critical Information Requirements, and Essential Elements of Information for each threat. This comprehensive data structure allows emergency managers to transition from general awareness to specific operational readiness.

**HAZARD: Blizzard****High Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Annex C - Hazard &amp; Threat Response, Appendix 2: Severe Seasonal Weather (Winter)

**Definition:** Blizzards are a combination of heavy snow and high winds. Sustained winds or frequent gusts of 35 miles per hour (mph) or more with heavy falling or blowing snow limiting visibility to ¼ mile or less that persists for three or more hours. The combination of conditions along with subfreezing temperatures brings potentially life-threatening traveling conditions.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Extensive. An event causes widespread and severe operational impact, a sensitive data breach undermining core interests, extensive property damage causing major operational disruptions, or impaired organizational function. News coverage generates intense national scrutiny and potential operational restrictions.

**Trigger Events | Warning Signs**

- National Weather Service Winter Storm Warning upgraded to Blizzard Warning for any portion of the state
- National Weather Service Special Weather Statement/Hazardous Weather Outlook indicating increasing confidence in blizzard conditions across multiple counties
- Reports from Maine Department of Transportation, Maine State Police, or county emergency management agencies of rapidly deteriorating conditions, whiteout visibility, and widespread vehicle incidents
- Sustained winds of 35 mph or more with considerable falling/blowing snow across a broad area Reports of Open Warming Centers or Disaster/Emergency Shelters

### Information Sources

- Central Maine Power/Versant
- County Emergency Management Agencies
- Maine Department of Transportation
- Maine State Police
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Displacement of resident and tourist populations/Sheltering (e.g., stranded motorists, isolated homes)
- Disruption of utilities (e.g., widespread power outages due to heavy snow and wind damaging lines)
- Severe disruption of transportation networks/supply chain (e.g., impassable roads, delays for critical deliveries)
- Disruption of critical facilities (e.g., hospitals, emergency services) due to staffing shortfalls or accessibility issues
- Disruption of critical services (e.g., emergency response, waste removal, home heating fuel delivery)
- Disruption of businesses, leading to economic losses and lost wages
- Increased issues with vulnerable populations (e.g., elderly, homebound, those without adequate heating)
- Cold weather injuries and fatalities (e.g., hypothermia, frostbite)

### Risk Response Actions (Potential)

- **Issuance of Warnings and Advisories:** National Weather Service, in coordination with MEMA, issues Blizzard Warnings, Winter Storm Warnings, and travel advisories.
- **Transportation Management:** Maine Department of Transportation initiates snow removal operations, closes roads as necessary, and issues travel bans or advisories. Maine State Police enforces travel restrictions.
- **Power Restoration Coordination:** MEMA coordinates with major utilities (Central Maine Power, Versant Power) for power outage tracking, resource allocation, and communication of estimated restoration times.

- **Sheltering and Mass Care:** MEMA and county emergency management agencies activate warming shelters and provide resources for those displaced or without power.
- **Resource Deployment:** State assets (e.g., National Guard for transportation, welfare checks) are deployed as needed.
- **Public Information:** MEMA provides regular updates to the public through various channels (media, social media, Maine Alert System).
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **State of Travel:** Are major interstates (e.g., I-95, I-295) and critical state routes open or closed? Is a statewide travel ban being considered or implemented?
- **Widespread Power Outages:** What percentage of state population is without power? Are restoration estimates exceeding 24-48 hours for significant regions?
- **Life Safety Threats:** Are there widespread reports of stranded motorists, medical emergencies, or structural collapses due to snow load?
- **Resource Availability:** Are state-level resources (e.g., National Guard, plows, shelters) sufficient or are mutual aid requests necessary?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Snowfall Accumulation Rates:** Current and forecast accumulation rates in inches per hour for specific regions/counties.
- **Wind Speeds/Gusts:** Sustained wind speeds and gusts (mph) contributing to whiteout conditions.
- **Road Conditions:** Real-time status of specific state roads and bridges (open, closed, impassable) from Maine Department of Transportation and Maine State Police.
- **Power Outage Details (Residents):** Number of customers affected by utility (Central Maine Power, Versant), by county/town, and estimated time of restoration.

- **Power Outage Details (Infrastructure):** Critical infrastructure without power (hospitals, water/wastewater treatment plants, skilled nursing facilities, etc.)
- **Shelter Status:** Locations, capacities, and current occupancy of activated warming/emergency shelters.
- **Medical Transport Capability:** Ability of Emergency Medical Services to respond to and transport patients in affected areas.
- **Resource Needs:** Specific requests from counties/municipalities for snow removal equipment, shelter supplies, or personnel.

**HAZARD: Cyber Incident****High Risk****Hazard Category:** Human-Caused**Subordinate Risks:** Cyber Attack; Cyber Incident**Plan Reference:** Annex D: Cyber Incident Response**Definition:**

**Cyber Attacks** target information and communications technology infrastructure, systems or services affecting critical infrastructure, whether physical or non-physical, for the purpose of disrupting, disabling, destroying or maliciously controlling such infrastructure, systems or services or destroying the integrity of the data or stealing the information residing therein.

**Cyber Incidents** occur on or conducted through a computer network that actually or imminently jeopardizes the confidentiality, integrity, or availability of computers, information or communications systems or networks, physical or virtual infrastructure controlled by computers or information systems, or information resident there on.

**Probability:** Almost Certain. This event presents a high probability of impacting the state within the next year. Historical data, current conditions in Maine, and clear precursor indicators suggest an imminent occurrence.

**Impact:** Significant. An event causes considerable ongoing operational impact, a sensitive data breach impacting core functions, catastrophic property damage causing a fundamental operational breakdown, or critical systematic failures halting core activities. News coverage initiates federal involvement, creates sustained negative media, and causes severe operational limitations.

**Trigger Events | Warning Signs**

- Information technology personnel detect abnormal network traffic, unauthorized access attempts, or multiple failed login sequences.
- State employees report encrypted files, ransom demands on their monitors, or disabled workstations.

- The Maine Information and Analysis Center issues a critical alert regarding a specific threat to state infrastructure.
- System administrators identify large data exfiltration events, abnormal outbound traffic patterns, or unauthorized system configurations.
- External security vendors notify state officials about a compromised software supply chain that impacts government systems.

### Information Sources

- County Emergency Management Agencies
- Cybersecurity and Infrastructure Security Agency
- Federal Bureau of Investigation
- Local municipalities/districts
- Maine Office of Information Technology
- Maine Public Utilities Commission
- Maine State Police

### Hazard Impacts (Potential)

- Disruption of critical infrastructure and services (e.g., municipal water systems, utility grids, emergency communications)
- Loss or compromise of sensitive data (e.g., personal information, financial records) leading to privacy breaches
- Financial losses due to theft, fraud, ransom payments, or operational downtime
- Reputational damage and loss of public trust in affected organizations (e.g., local government, businesses)
- Disruption of essential government functions and services (e.g., permitting, tax collection, public safety dispatch)
- Economic impact due to operational paralysis or intellectual property theft
- Public safety risks if critical systems (e.g., traffic control, emergency alerts) are compromised
- Long-term recovery costs for system restoration and enhanced security measures

### Risk Response Actions (Potential)

- **Threat Intelligence Sharing:** Maine Information and Analysis Center and other state security agencies collaborate with federal partners (Cybersecurity and Infrastructure Security Agency, Federal Bureau of Investigation) to share threat intelligence and indicators of compromise.
- **Impact Assessment:** Conduct immediate assessment of affected state systems, critical infrastructure, and potential data breaches.
- **Containment and Eradication:** Implement measures to isolate affected systems, remove malware, and patch vulnerabilities.
- **Recovery and Restoration:** Execute recovery plans to restore affected systems and data from backups.
- **Law Enforcement Investigation:** Maine State Police and other law enforcement agencies initiate investigations to identify perpetrators and pursue legal action.
- **Public Notification (if applicable):** If public data is compromised, Maine follows state and federal notification requirements.
- **Inter-agency Coordination:** Collaborate with federal agencies (Department of Homeland Security, Federal Bureau of Investigation, Cybersecurity and Infrastructure Security Agency) and private sector entities for a coordinated response.
- **Public Information:** Issue advisories to state agencies, businesses, and the public regarding cybersecurity best practices and any specific threats.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Impact on Critical State Services:** Are core government functions (e.g., tax collection, unemployment benefits, driver services) or critical infrastructure (e.g., energy grid, water supply) compromised or offline?
- **Data Breach Severity:** Has Personally Identifiable Information (PII) or classified state data been exfiltrated or corrupted on a large scale?
- **Attribution & Intent:** Is the incident assessed to be state-sponsored, criminal, or hacktivist, and what is the likely motivation?

- **Threat to Other States/Federal Systems:** Does the attack have broader implications for other states or federal systems?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Affected Systems/Agencies:** Specific state agencies, systems, or data compromised.
- **Type of Attack:** Ransomware, DDoS, data exfiltration, wiper, etc.
- **Infection/Compromise Indicators:** Specific IP addresses, malware signatures, or attack vectors identified.
- **Containment Status:** Percentage of affected systems contained/isolated.
- **Recovery Status:** Progress of restoration efforts, including timeline for system recovery.
- **Law Enforcement Progress:** Initial findings from Maine State Police/Federal Bureau of Investigation.
- **Resource Needs:** Specialized cybersecurity expertise, forensic tools, or federal assistance.

**HAZARD: Flooding, Coastal****High Risk****Hazard Category:** Natural**Subordinate Risks:** Coastal Flooding; Storm Surge; Storm Tide**Plan Reference(s):**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

Annex C - Hazard &amp; Threat Response, Appendix 3: Hurricanes &amp; Tropical Storms

Annex C - Hazard &amp; Threat Response, Appendix 4: Flooding

**Definition:**

**Coastal flooding**, or the temporary inundation of low-lying land areas along the coast, is caused by higher-than average astronomical tide and is worsened by heavy rainfall, storm surge driven by onshore winds (i.e., wind blowing landward from the ocean), damaging waves, and sea level rise. Coastal flooding comes with two significant components: an increase in still-water levels and storm surge.

**Storm surge** is an abnormal rise in water level in coastal areas, over and above the regular astronomical tide, caused by forces generated from a severe storm's wind and low atmospheric pressure. Storm surge is extremely dangerous because it is capable of flooding large coastal areas. Extreme flooding can occur in coastal areas particularly when storm surge coincides with normal high tide, resulting in storm tides.

**Storm tide** is a combination of predicted astronomical tide and storm surge. It is the overall water level achieved during a storm event and is usually measured at a tide gauge. For example, if a predicted astronomical tide is 10 feet, and 4 feet of storm surge comes in on top of that high tide, the storm tide level would be 14 feet. The typical high winds associated with coastal storms exacerbate flooding by “pushing” more water toward land and increasing base water levels, or still-water levels. Strong storms such as tropical cyclones or nor’easters can cause large damaging waves and storm surges along areas of the coast of Maine.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Extensive. An event causes widespread and severe operational impact, a sensitive data breach undermining core interests, extensive property damage causing major operational disruptions, or impaired organizational function. News coverage generates intense national scrutiny and potential operational restrictions.

### Trigger Events/Warning Signs

- National Weather Service Coastal Flood Warning for any coastal counties
- National Weather Service Flood Advisory/Warning for tidal portions of major rivers (e.g., Kennebec, Penobscot, Androscoggin)
- Predicted storm surge levels impacting populated coastal areas
- Reports from harbor masters, coastal municipalities, or Maine Marine Patrol of rapidly rising water levels exceeding normal tides
- High astronomical tides coinciding with significant precipitation or storm systems

### Information Sources

- Coastal municipalities
- County Emergency Management Agencies
- Maine Department of Transportation
- Maine Geological Survey
- Maine Marine Patrol
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Inundation and damage to coastal properties and infrastructure (e.g., homes, businesses, roads along rivers or lakes if within tidal influence)
- Displacement of resident and tourist populations/Sheltering
- Disruption of coastal transportation routes and access
- Contamination of water sources (e.g., wells, drinking water) by saltwater intrusion or sewage overflow

- Erosion of shorelines and coastal habitats
- Negative economic impact on coastal tourism, fishing, and related businesses
- Damage to wastewater treatment facilities and septic systems
- Increased risk of mold and other health hazards in flooded buildings

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues Coastal Flood Warnings and advisories.
- **Evacuation Orders:** MEMA, in coordination with county emergency management agencies, supports and facilitates evacuation orders for at-risk coastal communities.
- **Resource Pre-positioning:** Pre-positioning of pumps, sandbags, and other flood control resources.
- **Infrastructure Protection:** Maine Department of Transportation and other agencies implement measures to protect critical coastal infrastructure (roads, bridges, utilities).
- **Search and Rescue:** Maine Marine Patrol, Maine Warden Service, and local first responders conduct water rescues as needed.
- **Damage Assessment:** Post-event damage assessments by MEMA, Maine Department of Environmental Protection, and other agencies for recovery planning and potential federal aid.
- **Public Information:** MEMA provides information on flood risks, evacuation routes, and safety measures.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Impact on Coastal Communities:** Are multiple coastal towns or significant population centers experiencing inundation requiring mass evacuation or rescue?
- **Critical Infrastructure Compromise:** Are major coastal roads (e.g., Route 1, critical bridges), ports, or utility infrastructure significantly damaged or inoperable?

- **Life Safety Threat:** Are widespread water rescues underway or is there significant risk to life and limb in coastal areas?
- **Long-term Economic Impact:** Is the event likely to result in prolonged economic disruption to coastal industries (e.g., fisheries, tourism)?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Tide Levels:** Actual and forecast tide levels (in feet above MLLW) and comparison to flood stages.
- **Areas Inundated:** Specific towns, neighborhoods, and critical facilities impacted by flooding.
- **Road/Bridge Closures:** Real-time status of coastal roads and bridges closed due to flooding or damage.
- **Evacuation Status:** Number of people evacuated, and status of evacuation routes.
- **Search and Rescue Operations:** Locations and number of water rescues underway.
- **Damage Reports:** Initial reports of structural damage to coastal properties and infrastructure.
- **Resource Needs:** Requests for high-water vehicles, swift water rescue teams, or dewatering pumps.

**HAZARD: Flooding, Inland****High Risk****Hazard Category:** Natural**Subordinate Risks:** Inland Flooding; Flash Flooding; Ice Jam; Lake Flooding; Riverine Flooding**Plan Reference(s):**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

Annex C - Hazard &amp; Threat Response, Appendix 3: Hurricanes &amp; Tropical Storms

Annex C - Hazard &amp; Threat Response, Appendix 4: Flooding

**Definition:**

**Inland flooding** occurs when moderate precipitation accumulates over several days, intense precipitation falls over a short period, there is abundant runoff from spring snowmelt, a river overflows because of ice or debris jam or dam or levee failure, or a combination of these factors.

**Flash flooding** is caused by heavy or excessive rainfall in a short period of time, generally less than 6 hours. Flash floods are usually characterized by raging torrents after heavy rains that rip through riverbeds, urban streets, or mountain canyons sweeping everything before them. They can occur within minutes or a few hours of excessive rainfall. They can also occur even if no rain has fallen, for instance after a levee or dam has failed, or after a sudden release of water by a debris or ice jam. Flash floods are very dangerous and destructive not only because of the force of the water, but also the hurtling debris that is often swept up in the flow.

**Ice jams** occur when warm temperatures and heavy rain cause snow to melt rapidly. Snow melt combined with heavy rains can cause frozen rivers to swell, which breaks the ice layer on top of the river. The ice layer often breaks into large chunks, which float downstream and often pile up in sharp river bends, shallow river channels, mouths of tributaries, points where river slope decreases, and near narrow passages around other obstructions such as bridges and dams. The channel blockage acts like a temporary dam causing the water to rise rapidly behind the jam causing a rapid onset of upstream flooding. If the ice jam suddenly breaks, a torrent of water is rapidly released downriver causing flash flooding below the jam location.

**Lacustrine or lake flooding** occurs when the outlet for the lake cannot discharge the flood waters fast enough to maintain the normal pool elevation of the lake. During a base flood event, normal increases in water surface elevations on most lakes and ponds from 1 to 5 feet. However, in Maine there are some examples where the base flood event will reverse the flow of the outlet stream. In such cases, river and base flood elevations can rise more than 15 feet above normal.

**Riverine flooding** occurs when water levels rise over the top of the riverbanks due to excessive rainfall from low pressure systems, landfilling tropical systems, persistent nearly stationary thunderstorms over extended periods of time, or a combination of snowmelt and rainfall along with ice jams.

**Probability:** Almost Certain. This event presents a high probability of impacting the state within the next year. Historical data, current conditions in Maine, and clear precursor indicators suggest an imminent occurrence

**Impact:** Significant. An event causes considerable ongoing operational impact, a sensitive data breach impacting core functions, catastrophic property damage causing a fundamental operational breakdown, or critical systematic failures halting core activities. News coverage initiates federal involvement, creates sustained negative media, and causes severe operational limitations.

#### **Trigger Events/Warning Signs**

- National Weather Service Flood Warning for major river basins (e.g., Kennebec River, Penobscot River, Androscoggin River) or their significant tributaries
- National Weather Service Flash Flood Warning for specific watersheds or counties
- Excessive rainfall warnings/reports across a broad region (e.g., 2+ inches in a short period over multiple counties)
- Reports from Maine Department of Transportation, Maine State Police, or Public Works agencies of widespread road closures due to water overtopping
- Visual observation of rapidly rising river/stream levels from staff, Maine State Police, or county emergency management agencies
- Dam operations reports from major hydro facilities indicating increased or uncontrolled releases

### Information Sources

- County Emergency Management Agencies
- Maine Department of Transportation
- Maine State Police
- Major dam operators (e.g., Brookfield Renewable Power)
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME
- U.S. Geological Survey River Gauges

### Hazard Impacts (Potential)

- Inundation and damage to properties and infrastructure (e.g., homes, businesses, roads, bridges)
- Displacement of resident populations/Sheltering (e.g., along the Kennebec River or its tributaries)
- Disruption of transportation networks, isolating communities or impeding emergency response
- Contamination of drinking water sources and agricultural land
- Economic losses due to property damage, business closures, and agricultural crop damage
- Increased risk of waterborne diseases and mold in affected buildings
- Erosion and instability of riverbanks and surrounding land
- Damage to critical facilities and services (e.g., wastewater treatment plants, schools)

### Risk Response Actions (Potential)

- **River Level Monitoring:** U.S. Geological Survey and Maine Department of Environmental Protection monitor river levels and forecast crests.
- **Issuance of Warnings:** National Weather Service issues Flood Warnings and advisories for specific river basins and areas.
- **Evacuation Support:** MEMA assists county emergency management agencies with evacuation planning and execution for affected inland communities.

- **Road Closures:** Maine Department of Transportation closes flooded roads and reroutes traffic.
- **Search and Rescue:** Maine Warden Service, Marine Patrol, and local first responders conduct swift water rescues.
- **Dam Safety Monitoring:** MEMA Dam Safety Program monitors dams for potential overtopping or failure.
- **Public Health Concerns:** Maine Center for Disease Control and Prevention monitors drinking water systems for contamination and advises on well safety.
- **Damage Assessment:** MEMA and other agencies conduct damage assessments for recovery.
- **Public Information:** MEMA disseminates information on flood safety, road closures, and available resources.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **River Basin Status:** Are multiple major river basins (e.g., Kennebec, Penobscot, Androscoggin) at or above major flood stage, impacting multiple counties?
- **Population Displacement:** Are widespread evacuations occurring, leading to significant numbers of displaced persons requiring mass care?
- **Agricultural Impact:** Is significant agricultural land or critical harvest season impacted across large regions?
- **Dam Stability:** Are there any reports or concerns about the stability or overtopping of major dams?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

**Essential Elements of Information**

- **River Gauge Readings:** Current and forecast river levels (in feet) at specific U.S. Geological Survey gauges, compared to flood stages.
- **Affected Communities:** List of towns/cities experiencing or forecast to experience significant flooding.
- **Road/Bridge Closures:** Specific state and local roads/bridges closed due to inland flooding.
- **Evacuation Status:** Number of people evacuated and shelter locations/capacities.
- **Search and Rescue Operations:** Locations and number of swift water rescues underway.
- **Damage Reports:** Initial reports of structural damage to properties and infrastructure.
- **Public Water Supply Status:** Any public water systems impacted by floodwaters or loss of power.
- **Resource Needs:** Requests for swift water rescue teams, high-water vehicles, or flood barriers.

**HAZARD: Ice Storm****High Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Annex C - Hazard & Threat Response, Appendix 2: Severe Seasonal Weather (Winter)

**Definition:**

**Ice storms** describe occasions when damaging accumulations of ice are expected during freezing rain situations. Mean radial ice coating at least ¼ inch in thickness is heavy enough to begin to damage tree branches, overhead wires, and similar objects. A mean radial ice coating of one half an inch is heavy enough to produce destructive widespread power outages.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Extensive. An event causes widespread and severe operational impact, a sensitive data breach undermining core interests, extensive property damage causing major operational disruptions, or impaired organizational function. News coverage generates intense national scrutiny and potential operational restrictions.

**Trigger Events/Warning Signs**

- National Weather Service Ice Storm Warning for one or more counties
- National Weather Service Winter Weather Advisory for widespread freezing rain/drizzle accumulation
- Widespread power outages reported by major utilities (e.g., Central Maine Power, Versant Power) affecting multiple counties
- Reports from Maine Department of Transportation, Maine State Police, or county emergency management agencies of widespread ice accumulation on roads, trees, and power lines
- Reports of trees or limbs falling due to ice load across multiple regions

### Information Sources

- Central Maine Power/Versant Power
- County Emergency Management Agencies
- Maine State Police
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME
- Maine Department of Transportation

### Hazard Impacts (Potential)

- Widespread and prolonged power outages due to ice accumulation on power lines and trees
- Significant tree damage, leading to blockages on roads and property damage
- Disruption of transportation networks due to hazardous driving conditions and downed trees/lines
- Disruption of critical services (e.g., emergency response, healthcare access) due to impassable roads or power loss
- Increased risk of cold weather injuries and carbon monoxide poisoning from improper heating methods
- Economic losses due to business closures, lost productivity, and extensive cleanup costs
- Damage to structures from falling ice, trees, or structural collapse under ice weight
- Increased issues with vulnerable populations (e.g., those without heat, reliant on electricity for medical equipment)

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues Ice Storm Warnings and advisories.
- **Power Restoration Coordination:** MEMA works closely with utilities (Central Maine Power, Versant Power) to prioritize power restoration efforts, coordinate mutual aid from out-of-state crews, and provide public updates on outages.
- **Debris Management:** Maine Department of Transportation and Maine Forest Service coordinate efforts for clearing downed trees and limbs from roads and power lines.

- **Sheltering and Mass Care:** MEMA and county emergency management agencies open warming centers and disaster/emergency centers and coordinate provision of food and water for those without power.
- **Transportation Restrictions:** Maine State Police enforces travel restrictions on icy roads.
- **Resource Deployment:** State resources (e.g., National Guard) may be deployed for welfare checks and transportation.
- **Public Information:** MEMA provides critical safety information (e.g., generator safety, carbon monoxide poisoning prevention).
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Power Outages:** What percentage of state population is without power, and are restoration times estimated to be days or weeks for significant regions?
- **Impact on Healthcare/Vulnerable Populations:** Are hospitals or nursing homes without power, and are there widespread life safety issues for vulnerable populations due to loss of heat?
- **Transportation Gridlock:** Are major roadways impassable due to ice and downed trees, severely limiting emergency response?
- **Structural Damage:** Is there widespread structural damage to homes or critical facilities due to ice accumulation?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Ice Accumulation:** Current and forecast ice accumulation (in inches) by county/region.
- **Power Outage Details:** Number of customers affected by utility (Central Maine Power, Versant), by county/town, and estimated time of restoration, particularly for critical facilities.

- **Road Conditions:** Specific state roads and bridges closed due to ice, downed lines, or trees.
- **Shelter Status:** Locations, capacities, and current occupancy of activated warming/emergency shelters.
- **Injuries/Fatalities:** Reports of carbon monoxide poisoning, falls, or other ice-related injuries.
- **Debris Impact:** Volume of downed trees and limbs impacting roads and infrastructure.
- **Resource Needs:** Requests for utility crews (in-state and out-of-state mutual aid), chainsaws, generators, and shelter supplies.

**HAZARD: Drought****Medium Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Annex C - Hazard &amp; Threat Response, Appendix 5: Drought

**Definition:**

**Drought** is a period of unusually persistent dry weather resulting in prolonged shortages in water supply with many associated impacts. Drought is defined by its spatial extent, intensity, magnitude and duration, the components of the hydrological cycle that it affects and the systems that it impacts. These multiple factors that define drought make it difficult to predict, quantify or put into historical context.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- U.S. Drought Monitor indicates "Severe Drought" (D2) or worse for multiple counties or significant agricultural regions.
- National Weather Service and National Oceanic and Atmospheric Administration Climate Prediction Center outlooks forecast prolonged dry conditions.
- Maine Forest Service reports elevated or extreme wildfire danger indices.
- Observers note low water levels in major rivers, lakes, and public water supply reservoirs.
- Farmers report significant crop stress or water scarcity.
- Maine Department of Environmental Protection or Maine Center for Disease Control and Prevention reports public water supply stress.

### Information Sources

- Maine Centers for Disease Control and Prevention Drinking Water Program
- Maine Department of Agriculture, Conservation and Forestry
- Maine Department of Environmental Protection
- Maine Forest Service
- Maine Public Water Systems
- National Weather Service/National Oceanic and Atmospheric Administration
- U.S. Drought Monitor (National Drought Mitigation Center)
- University of Maine, Cooperative Extension

### Hazard Impacts (Potential)

- Water shortages for drinking, agriculture, and industry
- Agricultural losses (e.g., crop failure, livestock impacts) leading to economic hardship for farmers
- Increased risk of wildfires due to dry conditions
- Negative impact on natural ecosystems, including rivers, lakes, and forests
- Economic impact on tourism, especially activities reliant on water (e.g., fishing, boating)
- Reduced hydropower generation, potentially impacting electricity supply
- Increased cost of water for residents and businesses
- Public health issues related to reduced water quality or availability

### Risk Response Actions (Potential)

- **Activation of Drought Task Force:** The state's Drought Task Force (or similar inter-agency group involving MEMA, Maine Department of Environmental Protection, Maine Center for Disease Control and Prevention Drinking Water Program, Maine Department of Agriculture, Conservation and Forestry) convenes to assess conditions and coordinate response.

- **Water Conservation Advisories/Restrictions:** Maine Department of Environmental Protection and Maine Center for Disease Control and Prevention issue voluntary or mandatory water conservation measures for public water systems and individual users.
- **Monitoring and Data Sharing:** Enhanced monitoring of water levels in rivers, lakes, and reservoirs, and sharing of data with stakeholders.
- **Agricultural Support:** Maine Department of Agriculture, Conservation and Forestry provides resources and guidance to farmers experiencing crop stress or water scarcity.
- **Public Water Supply Assistance:** Maine Center for Disease Control and Prevention Drinking Water Program assists public water systems facing stress, including identifying alternative water sources or bulk water haulers.
- **Wildfire Risk Monitoring:** Maine Forest Service increases monitoring of wildfire danger indices.
- **Public Information:** Provide public education on water conservation and drought impacts.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Drought Monitor Status:** What percentage of the state is in “Severe Drought” (D2) or worse, and is it forecasted to persist?
- **Public Water Supply Stress:** Are multiple public water systems facing significant supply shortages requiring mandatory restrictions or alternative sources?
- **Widespread Agricultural Losses:** Are significant crop losses or livestock impacts occurring across major agricultural regions?
- **Elevated Wildfire Risk:** Is the statewide wildfire danger index at "High" or "Extreme" for a prolonged period?

## Essential Elements of Information

- **Drought Monitor Classifications:** Specific counties/regions by D-level (D0-D4).
- **Precipitation Deficit:** Monthly and seasonal precipitation deficits (in inches) for key regions.
- **Groundwater Levels:** Status of key observation wells (above/below average).
- **River/Lake Levels:** Water levels in major rivers and public water supply reservoirs (percentage of normal).
- **Public Water System Status:** List of public water systems implementing mandatory restrictions, requiring alternative sources, or under stress.
- **Agricultural Impact Reports:** Specific crop conditions, irrigation needs, and livestock health reports from Department of Agriculture, Conservation and Forestry.
- **Wildfire Danger Indices:** Real-time Forest Service indices for specific regions.
- **Resource Needs:** Potential need for bulk water hauling, livestock feed assistance, or increased fire suppression resources.

**HAZARD: Emerging Infectious Disease****Medium Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Emerging Infectious diseases** are diseases that appear in a population for the first time, or that may have existed previously but are rapidly increasing in incidence or geographic range. An outbreak occurs when a greater number of people than expected in a specific area or during a particular time get sick with a certain illness. It signals a potential problem that may require investigation and public health action

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- Notification from Maine Center for Disease Control and Prevention or U.S. Center for Disease Control and Prevention of a novel pathogen or a significant outbreak impacting public health across multiple counties or the entire state
- Increase in unusual clusters of illness reported by healthcare facilities statewide or by regional health networks
- Advisories from public health officials about widespread community transmission or high-risk areas
- Reports of unexplained elevated absenteeism in schools, workplaces, or state agencies across multiple regions

### Information Sources

- Health Care Coalition of Maine
- Maine Centers for Disease Control and Prevention
- Maine Department of Education
- Maine Department of Labor
- United States Centers for Disease Control and Prevention

### Hazard Impacts (Potential)

- Widespread illness and potential fatalities within the population
- Overwhelm of healthcare systems (e.g., hospitals, clinics, emergency services)
- Disruptions to daily life, including school closures, business closures, and event cancellations
- Strain on essential services due to workforce shortages (e.g., healthcare, public safety, utilities)
- Economic downturn due to reduced consumer activity, supply chain disruptions, and business losses
- Public fear, anxiety, and social disruption
- Increased demand for public health resources and services (e.g., testing, vaccination)
- Potential for long-term health complications for affected individuals

### Risk Response Actions (Potential)

- **Epidemiological Investigation:** Maine Center for Disease Control and Prevention conducts rapid epidemiological investigations to identify the source, mode of transmission, and extent of the outbreak.
- **Public Health Advisories and Guidelines:** Maine Center for Disease Control and Prevention issues public health advisories, guidance for healthcare providers, and recommendations for the public (e.g., hygiene, social distancing, vaccination).
- **Resource Allocation:** Maine Center for Disease Control and Prevention coordinates the allocation of medical supplies, testing kits, and potential vaccine distribution.

- **Healthcare System Coordination:** Collaboration with Maine Hospital Association and regional healthcare networks to manage patient surge and ensure adequate healthcare capacity.
- **Quarantine/Isolation Measures:** If necessary, Maine Center for Disease Control and Prevention may implement or advise on quarantine or isolation measures.
- **Public Information:** Maine Center for Disease Control and Prevention provides accurate and timely information to the public to prevent misinformation and encourage appropriate actions.
- **Inter-agency/Federal Coordination:** Close coordination with U.S. Center for Disease Control and Prevention and other federal partners for surveillance, testing, and response.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Novel Pathogen/Significant Outbreak:** Confirmation from Maine Center for Disease Control and Prevention/US Center for Disease Control and Prevention of a new pathogen or a significant, widespread outbreak impacting multiple counties or the entire state.
- **Healthcare System Strain:** Is the healthcare system (hospitals, Intensive Care Units) approaching or exceeding capacity due to patient surge?
- **Community Transmission:** Is there confirmed widespread community transmission across multiple regions?
- **Severity of Illness:** What is the hospitalization rate and fatality rate, and is it increasing?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

## Essential Elements of Information

- **Case Counts & Geographic Spread:** Number of confirmed/suspected cases, hospitalizations, and deaths, broken down by county/region.
- **Transmission Mode/Rate:** Understanding of how the disease is spreading and its reproduction number.
- **Healthcare Capacity:** Available hospital beds, Intensive Care Unit beds, ventilators, and Personal Protective Equipment supply levels statewide.
- **Testing Capacity/Turnaround:** Availability of testing, labs involved, and average turnaround time for results.
- **Vaccine/Treatment Availability:** Status of any available vaccines, therapeutics, or prophylaxis.
- **Public Health Advisories:** Specific recommendations issued (e.g., masking, social distancing, closures).
- **Absenteeism Rates:** Elevated absenteeism in schools, workplaces, essential services.
- **Resource Needs:** Requests for Personal Protective Equipment, testing supplies, medical personnel, or surge capacity.

**HAZARD: HAZMAT Release - Transportation****Medium Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

A **HAZMAT Release During Transportation** is any unplanned or accidental discharge, emission, spilling, leaking, pumping, pouring, emptying, escaping, dumping, or disposal of hazardous materials (HAZMAT) from a conveyance (e.g., truck, train, aircraft, vessel) or packaging while in transit. This includes any point from the material's initial loading for transportation until it reaches its final destination or a designated transfer point.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- 911 calls or direct reports to Maine State Police, Maine Department of Environmental Protection, or local responders of a major motor vehicle accident, train derailment, or maritime incident involving a commercial carrier with visible spills, odors, placards, or confirmed hazardous materials release
- Activation of emergency responder protocols (e.g., HAZMAT teams, fire/Emergency Medical Services) or substance ID numbers
- Notifications from federal agencies (e.g., National Transportation Safety Board, U.S. Coast Guard) regarding significant transportation incidents with potential HAZMAT implications within or impacting Maine

### Information Sources

- Maine Department of Environmental Protection
- Maine Department of Public Safety
- Maine Department of Transportation
- Maine Office of State Fire Marshal
- Maine State Police
- National Transportation Safety Board
- U.S. Coast Guard

### Hazard Impacts (Potential)

- Exposure to hazardous materials, causing illness, injury, or fatality
- Evacuation or sheltering-in-place of affected populations along transportation corridors
- Contamination of air, water, and soil, potentially impacting sensitive environments (e.g., rivers, agricultural land)
- Disruption of major transportation routes (e.g., roads, rail lines), impacting commerce and daily commutes
- Environmental damage and long-term remediation efforts
- Public fear and psychological impact
- Significant economic losses for affected businesses and cleanup costs
- Strain on emergency response resources (e.g., fire, Emergency Medical Services, law enforcement)

### Risk Response Actions (Potential)

- **Activation of State HAZMAT Response Protocol:** Maine State Police, Maine Department of Environmental Protection, and local first responders activate established HAZMAT response protocols.
- **Incident Command System:** Establish Unified Command at the incident scene involving relevant state agencies (Maine State Police, Maine Department of Environmental Protection, Maine Fire Marshal's Office) and local responders.
- **Containment and Mitigation:** Deployment of state HAZMAT teams (e.g., Orono Regional Response Team) to contain and mitigate the hazardous material release.

- **Evacuation/Shelter-in-Place:** Maine State Police and local law enforcement implement evacuation or shelter-in-place orders for affected populations.
- **Environmental Monitoring and Cleanup:** Maine Department of Environmental Protection conducts environmental monitoring to assess contamination and ensure public safety.
- **Decontamination:** Coordination of decontamination procedures for responders and affected individuals.
- **Investigation:** Maine State Police and National Transportation Safety Board (if applicable) conduct an investigation into the cause of the incident.
- **Public Information:** Provide timely and accurate information to the public regarding the hazard and safety measures.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Substance Identification:** Is the hazardous material identified, and what is its immediate threat level (e.g., explosive, toxic by inhalation, corrosive)?
- **Population at Risk:** How many people are potentially impacted within the hazard zone, requiring evacuation or shelter-in-place?
- **Environmental Release Severity:** Has there been a significant release into a major waterway or sensitive ecological area?
- **Critical Infrastructure Impact:** Is a major transportation corridor (interstate, rail line) or essential utility (e.g., power line, gas pipeline) compromised?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Incident Location:** Specific address, mile marker, or intersection of the incident.
- **HAZMAT ID:** Placard number, UN number, or chemical name.
- **Container Status:** Type of container, amount of material released, and ongoing leak status.

- **Plume/Vapor Cloud:** Size, direction, and potential impact area of any vapor cloud or visible plume.
- **Evacuation/Shelter-in-Place Zone:** Defined geographic area for protective actions, and number of people affected.
- **Injuries/Exposure:** Number of exposed individuals or casualties requiring decontamination/medical attention.
- **Environmental Impact:** Observations of impact on waterways, soil, or air quality.
- **Resource Needs:** Specific HAZMAT team needs, specialized equipment, decontamination units, or environmental cleanup contractors.

**HAZARD: Extreme Heat****Medium Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

**Definition:**

**Extreme heat** is defined as summertime temperatures that are much hotter and/or humid than local and seasonal average conditions. Maine’s Center for Disease Control classifies an extreme heat event as one with temperatures above 90 degrees lasting for three or more days. Heat is the leading cause of weather-related deaths in the United States. Heat-related illnesses, like heat exhaustion or heat stroke, happen when the body is not able to properly cool itself. While the body normally cools itself by sweating, during extreme heat, this might not be enough. In these cases, a person’s body temperature rises faster than it can cool itself down. This can cause damage to the brain and other vital organs.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- National Weather Service Excessive Heat Warning or Heat Advisory
- National Weather Service forecasts predicting multiple consecutive days of high temperatures (e.g., >90°F) and high heat index values across the state
- Reports from major hospitals or regional healthcare coalitions of increased heat-related illnesses
- High energy consumption alerts or potential brownouts/blackouts from major utilities (Central Maine Power, Versant Power)

### Information Sources

- Central Maine Power/Versant Power
- Health Care Coalition of Maine
- Maine Centers for Disease Control and Prevention
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Heat-related illnesses and fatalities (e.g., heatstroke, heat exhaustion)
- Increased demand on healthcare services and emergency rooms
- Increased strain on electrical grids leading to power outages due to high demand for air conditioning
- Increased issues with vulnerable populations (e.g., elderly, young children, individuals with pre-existing conditions, outdoor workers)
- Disruption of outdoor activities, events, and certain industries (e.g., construction, agriculture)
- Agricultural losses due to heat stress on crops and livestock
- Increased risk of wildfires due to dry conditions
- Impact on critical infrastructure and services due to overheating equipment

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues Excessive Heat Warnings and Heat Advisories.
- **Cooling Center Activation:** MEMA and county emergency management agencies coordinate the opening and operation of cooling centers across the state.
- **Public Health Advisories:** Maine Center for Disease Control and Prevention issues advisories on heat-related illness prevention, hydration, and vulnerable populations.
- **Welfare Checks:** State agencies and local partners may conduct welfare checks on vulnerable individuals.
- **Energy Grid Monitoring:** Central Maine Power and Versant Power monitor energy consumption and prepare for potential brownouts/blackouts.

- **Agricultural Impact Assessment:** Maine Department of Agriculture, Conservation and Forestry assesses impacts on livestock and crops.
- **Public Information:** Provide tips for staying cool and identifying signs of heat-related illness.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Prolonged High Heat:** Are multiple consecutive days (e.g., 3+) of high temperatures (>90°F) and heat index values (>100°F) forecasted for large portions of the state?
- **Healthcare Surge:** Are major hospitals reporting increased heat-related illnesses and approaching surge capacity?
- **Vulnerable Population Threat:** Is there a widespread threat to vulnerable populations (elderly, chronically ill, unhoused) due to lack of cooling?
- **Energy Grid Stress:** Are major utilities issuing high energy consumption alerts or forecasting potential brownouts/blackouts?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Temperature/Heat Index:** Current and forecast high temperatures and heat index values by region/county.
- **Cooling Center Status:** Locations, hours of operation, and capacity of activated cooling centers.
- **Heat-Related Illness Reports:** Number of emergency room visits or hospitalizations for heat exhaustion/stroke, broken down by age group.
- **Welfare Check Needs:** Reports of individuals needing welfare checks from local agencies.

- **Utility Load/Outage Status:** Real-time electricity demand, and any power outages impacting cooling.
- **Public Awareness Campaigns:** Reach of public messaging on heat safety.
- **Resource Needs:** Requests for water, transportation to cooling centers, or additional medical personnel.

**HAZARD: Mass Casualty****Medium Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Annex I – Fatality Management

**Definition:**

**Mass casualties** following disasters and major incidents are often characterized by a quantity, severity, and diversity of injuries and other patients that can rapidly overwhelm the ability of local medical resources to deliver comprehensive and definitive medical care.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- Multiple 911 calls from a single incident site reporting numerous injured persons (e.g., large-scale transportation accident, major explosion, multi-structure collapse)
- Initial emergency responder reports (Fire/Emergency Medical Services/Law Enforcement) from multiple agencies indicating numerous casualties requiring immediate medical attention and transport
- Notification from major healthcare facilities across a region activating their mass casualty plans

### Information Sources

- County emergency management agencies
- Health Care Coalition of Maine
- Maine Centers for Disease Control and Prevention
- Maine Department of Public Safety
- Maine Emergency Medical Services
- Maine Office of State Fire Marshal
- Maine State Police

### Hazard Impacts (Potential)

- Overwhelm of emergency medical services, hospitals, and morgue facilities
- Significant number of injuries and fatalities
- Severe psychological trauma to survivors, responders, and the broader community
- Immediate and widespread public fear and distress
- Disruption of daily life and routine operations
- Significant demand for public safety and support services
- Long-term recovery needs, including medical care, mental health services, and financial assistance
- Potential for secondary hazards depending on the cause (e.g., fire, structural collapse)

### Risk Response Actions (Potential)

- **Activation of State Medical/Trauma System:** Maine Emergency Medical Services activates state-level medical and trauma response protocols, coordinating patient transport and hospital surge capacity.
- **Unified Command:** Establish Unified Command at the incident scene with Maine State Police, Maine Fire Marshal's Office, and local law enforcement/Emergency Medical Services.
- **Resource Mobilization:** Rapid deployment of state-level Emergency Medical Services assets, medical teams, and search and rescue resources.

- **Hospital Coordination:** Maine Hospital Association coordinates with hospitals to prepare for and manage patient influx, including potential activation of mass casualty plans.
- **Victim Identification and Family Reunification:** Maine State Police and other agencies establish protocols for victim identification and family reunification.
- **Mental Health Support:** Maine Department of Health and Human Services and partner agencies provide mental health and psychological first aid to victims, responders, and affected communities.
- **Criminal Investigation:** Maine State Police leads criminal investigations if the incident is intentional.
- **Public Information:** Manage public information flow to avoid misinformation and ensure accurate reporting.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Number of Casualties:** Confirmed or estimated number of fatalities and critically injured, requiring significant medical and mortuary resources.
- **Type of Incident:** Is it an accident, intentional act, or natural disaster?
- **Healthcare System Mobilization:** Have multiple regional hospitals activated their mass casualty plans, and is their capacity strained?
- **Scene Security/Control:** Is the incident site secure and under control for ongoing operations?

### Essential Elements of Information

- **Incident Location:** Specific address or geographic coordinates of the incident.
- **Triage Status:** Initial triage estimates (Red, Yellow, Green, Black) of victims on scene.
- **Transport Status:** Number of patients transported, to which hospitals, and available transport units.
- **Hospital Bed Availability:** Real-time availability of acute care beds, trauma beds, and ORs in regional hospitals.

- **Mortuary Services:** Status of temporary morgue operations and Disaster Portable Morgue team deployment.
- **Responder Status:** Number of responding agencies and personnel, and any responder casualties.
- **Family Reunification:** Status of initial family reunification efforts.
- **Resource Needs:** Requests for additional Emergency Medical Services units, medical supplies, trauma surgeons, or specialized search and rescue teams.

**HAZARD: Strong | Damaging Wind****Medium Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference(s):**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

Annex C - Hazard &amp; Threat Response, Appendix 3: Hurricanes &amp; Tropical Storms

**Definition:**

**Damaging winds** are often called “straight-line” winds to differentiate the damage they cause from tornado damage. Strong thunderstorm winds can come from a number of different processes. Most thunderstorm winds that cause damage at the ground are a result of outflow generated by a thunderstorm downdraft. Damaging winds are classified as those exceeding 50-60 mph.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- National Weather Service High Wind Warning or Wind Advisory for multiple counties
- National Weather Service Special Weather Statement reporting observed wind gusts exceeding 58 mph across multiple locations (severe thunderstorm criteria for wind)
- Widespread reports from Maine Department of Transportation, Maine State Police, or utility companies of downed trees, power lines, or significant property damage (e.g., missing roofs, damaged structures) across multiple regions

### Information Sources

- Central Maine Power/Versant Power
- County Emergency Management Agencies
- Maine Department of Transportation
- Maine State Police
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Widespread power outages due to downed trees and utility poles
- Damage to structures (e.g., roofs, siding, windows), particularly residential and light commercial buildings
- Downed trees blocking roads and impacting transportation
- Injuries and potential fatalities from falling debris or trees
- Disruption of communication services
- Economic losses due to property damage and business disruption
- Strain on emergency services and public works for debris clearance and utility restoration

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues High Wind Warnings and Wind Advisories, and Special Weather Statements.
- **Power Outage Response:** MEMA coordinates with utilities (Central Maine Power, Versant Power) for power restoration and resource allocation.
- **Road Clearance:** Maine Department of Transportation and local public works departments clear downed trees and debris from roads.
- **Damage Assessment:** MEMA and county emergency management agencies conduct initial damage assessments.
- **Public Safety:** Maine State Police and local law enforcement respond to reports of property damage and ensure public safety.

- **Public Information:** Advise public on safe travel, securing outdoor objects, and power outage safety.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Power Outages:** What percentage of state population is without power across multiple counties, and are restoration estimates prolonged?
- **Transportation Disruption:** Are multiple major roads impassable due to downed trees or power lines across wide areas?
- **Property Damage Severity:** Is there widespread, significant property damage (e.g., missing roofs, structural damage) across multiple communities?
- **Life Safety Threat:** Are there reports of injuries or fatalities directly attributable to high winds?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Observed Wind Gusts:** Specific locations and maximum wind gusts (in mph) reported.
- **Power Outage Details:** Number of customers affected by utility, by county/town, and estimated time of restoration.
- **Road Closures:** Specific state and local roads closed due to downed trees/lines.
- **Damage Reports:** Initial reports of structural damage, trees on homes/vehicles, by location.
- **Debris Management:** Volume and type of debris requiring clearance.
- **Resource Needs:** Requests for utility crews, chainsaw crews, and heavy equipment.

**HAZARD: Thunderstorm | Lightning****Medium Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference(s):**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

Annex C - Hazard &amp; Threat Response, Appendix 3: Hurricanes &amp; Tropical Storms

**Definition:**

**Thunderstorms** are formed from a combination of moisture, rapidly rising warm air, and a force capable of lifting air such as a warm or cold front, or a sea breeze. All thunderstorms have lightning and can occur singly, in clusters or in lines.

**Lightning** is an electrical discharge that results from the buildup of separate positive and negative charges within a thunderstorm. When the buildup becomes strong enough, an electric current forms between the separated charges, commonly known as a 'bolt' of lightning. This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning reaches a temperature approaching 50,000 degrees Fahrenheit in a split second. The rapid heating and cooling causes thunder.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- National Weather Service Severe Thunderstorm Warning for multiple counties
- National Weather Service Lightning Detection Network alerts indicating widespread frequent strikes across the state
- Widespread reports of heavy rain, strong winds, or hail from public or emergency services across various regions

- Observed lightning, thunder, or rapid onset of heavy precipitation across a broad area

### Information Sources

- County emergency management agencies
- Maine Department of Public Safety
- National Weather Service, Caribou
- National Weather Service, Gray, ME
- National Weather Service Lightning Detection Network

### Hazard Impacts (Potential)

- Power outages due to lightning strikes and strong winds
- Fires ignited by lightning strikes (e.g., structural fires, brush fires)
- Injuries and fatalities from lightning strikes or falling debris
- Minor property damage from wind and hail (if present)
- Localized flash flooding in low-lying areas or areas with poor drainage
- Disruption of outdoor activities and events
- Damage to sensitive electronic equipment due to power surges

### Risk Response Actions (Potential)

- **Monitoring and Warning Dissemination:** National Weather Service issues Severe Thunderstorm Warnings, and MEMA disseminates these warnings through the Maine Alert System.
- **Public Safety Advisories:** MEMA and county emergency management agencies issue advisories on lightning safety, flash flooding, and severe weather precautions.
- **Power Outage Response:** MEMA coordinates with utilities for power restoration if significant outages occur.
- **Damage Assessment:** County emergency management agencies and local responders report on damage from high winds or hail.
- **Public Information:** Reinforce “When Thunder Roars, Go Indoors” message and other safety tips.

- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Activity:** Is there widespread severe thunderstorm activity (multiple warnings) across significant portions of the state?
- **Significant Power Outages:** Are lightning strikes or strong winds causing significant power outages (e.g., >10% of a county's customers)?
- **Life Safety Threat:** Are there reports of lightning strike injuries or fatalities?
- **Flash Flooding:** Is widespread flash flooding occurring, impacting multiple communities or critical infrastructure?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Warning Status:** Number and location of active Severe Thunderstorm Warnings and Flash Flood Warnings.
- **Lightning Activity:** Real-time lightning strike density and locations from National Weather Service Lightning Detection Network.
- **Observed Impacts:** Reports of strong winds (mph), hail size, heavy rain (inches per hour) from trained spotters and public.
- **Power Outage Details:** Specific areas affected by lightning-related outages and estimated time of return.
- **Flash Flood Reports:** Locations of flooded roads, water over roadways, or water entering structures.
- **Resource Needs:** Requests for Emergency Medical Services for lightning strike victims, or assistance with localized flooding.

**HAZARD: Wildfire****Medium Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Wildfires** or wildland fires consist of unplanned fires burning in an area of combustible vegetation that occurs in forests, shrublands, grasslands, or prairies. Areas damaged by wildfires are particularly susceptible to flash floods and debris flows during rainstorms. Rainfall that is normally absorbed by soil and vegetation can run off almost instantly, causing creeks and drainage areas to flood much earlier and with higher magnitude than normal. Heavy rainfall in recently burned areas can also mobilize sediments and cause a much more destructive debris flow.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- Maine Forest Service reporting high or extreme fire danger index statewide or for multiple regions
- 911 calls or direct reports to Maine Forest Service of active, uncontained wildfires spreading rapidly in wooded areas
- Maine Forest Service notifications of large-scale wildfires requiring state-level resource allocation (e.g., aerial assets, multiple fire departments)
- Observed smoke plumes visible across large geographic areas
- Request for state assistance from local fire departments

### Information Sources

- County Emergency Management Agencies
- Maine Department of Public Safety
- Maine Forest Service
- Maine Office of State Fire Marshal

### Hazard Impacts (Potential)

- Widespread destruction of natural landscapes, forests, and potentially structures
- Evacuation of affected populations/Sheltering
- Injuries and fatalities to residents and firefighters
- Significant air quality degradation from smoke, impacting respiratory health over wide areas
- Disruption of transportation routes due to smoke, road closures, or fire activity
- Damage to critical infrastructure (e.g., power lines, communication towers)
- Loss of wildlife habitat and ecosystem damage
- Long-term economic impact on tourism, timber industry, and property values
- Potential for re-ignition and prolonged fire suppression efforts

### Risk Response Actions (Potential)

- **Activation of State Fire Mobilization Plan:** Maine Forest Service (Maine Forest Service) activates the state's wildfire response plan, mobilizing state and mutual aid fire resources.
- **Incident Command:** Maine Forest Service establishes Incident Command for fire suppression operations.
- **Resource Allocation:** Maine Forest Service deploys aerial assets, ground crews, and heavy equipment.
- **Evacuation Orders:** Maine Forest Service, in coordination with MEMA and county emergency management agencies, issues and enforces evacuation orders for at-risk areas.
- **Forest Closure/Burn Ban:** Maine Forest Service may implement statewide or regional burn bans and forest closures.

- **Air Quality Monitoring:** Maine Department of Environmental Protection monitors air quality due to smoke, issuing advisories as needed.
- **Public Information:** Maine Forest Service provides regular updates on fire status, containment, and safety measures.
- **Mutual Aid Coordination:** MEMA coordinates interstate mutual aid for firefighting resources.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Containment Status of Major Fires:** Are one or more significant wildfires uncontained and actively spreading, threatening populated areas or critical infrastructure?
- **Resource Strain:** Are state fire suppression resources (Maine Forest Service, local mutual aid) overwhelmed, requiring interstate mutual aid or federal assistance?
- **Evacuation Orders:** Are large-scale evacuations necessary for populated areas threatened by wildfire?
- **Air Quality Impact:** Is smoke from wildfires causing poor air quality across multiple regions, posing a public health threat?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Fire Location/Name:** Specific location and name of active wildfires.
- **Acreage Burned:** Estimated acreage burned and growth rate.
- **Containment Percentage:** Current containment status of each major fire.
- **Threatened Structures/Populations:** Number of structures threatened or destroyed, and populations under evacuation order or pre-evacuation notice.
- **Resource Deployment:** Number and type of Maine Forest Service resources (crews, engines, aircraft) deployed, and mutual aid received.

- **Fire Danger Index:** Real-time Maine Forest Service Fire Danger Index for affected and surrounding regions.
- **Air Quality Index (AQI):** Current AQI values for PM2.5 in smoke-affected areas.
- **Resource Needs:** Requests for additional fire engines, crews, aerial assets, or incident management teams.

**HAZARD: Active Assailant****Low Risk**

**Hazard Category:** Human-Caused

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

An **Active Assailant** Incident refers to a situation in which one or more individuals actively engage in killing or attempting to kill people in a populated area or other confined public space. These incidents are characterized by their unpredictability, rapid evolution, and potential for mass casualties.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- Multiple 911 calls from a specific location (e.g., school, business, public gathering) reporting shots fired, screams, or multiple victims
- Immediate reports from law enforcement (Maine State Police, local PD, Sheriff's Office) confirming an active shooter/assailant situation
- Notifications from schools, businesses, or state agencies initiating lockdown procedures
- Threat intelligence shared by federal partners (Federal Bureau of Investigation, Department of Homeland Security)

### Information Sources

- County Emergency Management Agencies
- Local law enforcement
- Maine Department of Public Safety
- Maine Information & Analysis Center
- Maine State Police

### Hazard Impacts (Potential)

- Mass casualties and injuries
- Significant psychological trauma to survivors and community
- Overwhelm of emergency medical services and hospitals
- Public fear and widespread panic
- Long-term economic impact due to business closures and reduced activity
- Damage to property and infrastructure

### Risk Response Actions (Potential)

- **Unified Command:** Maine State Police and local law enforcement establish Unified Command at the incident scene.
- **Emergency Medical Response:** Maine Emergency Medical Services coordinates mass casualty medical response, including triage, treatment, and transport.
- **Threat Intelligence:** Maine Information and Analysis Center disseminates relevant threat intelligence to responders and partners.
- **Security Measures:** State agencies and critical infrastructure implement enhanced security measures and lockdown procedures.
- **Victim Support:** Maine Department of Health and Human Services and partner agencies provide immediate and ongoing support to victims and their families.
- **Investigation:** Maine State Police and Federal Bureau of Investigation lead the criminal investigation.
- **Public Information:** Carefully managed and coordinated public information to avoid panic and provide accurate instructions.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Threat Neutralized:** Is the active assailant confirmed to be neutralized, or is the threat ongoing?
- **Casualty Count:** Preliminary count of fatalities and critically injured.
- **Scene Security:** Is the immediate incident scene secure and controlled?
- **Broader Threat Assessment:** Is there intelligence indicating additional threats or accomplices?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Incident Location:** Specific address of the active assailant event.
- **Assailant Status:** Confirmed neutralized, contained, or at large.
- **Victim Status:** Initial count of injured and deceased.
- **Responder Status:** Number of law enforcement, fire, and Emergency Medical Services on scene, and any responder casualties.
- **Scene Security Status:** Confirmation of scene perimeter, active threat areas, and safe zones.
- **Medical Staging:** Location and status of medical casualty collection points and triage areas.
- **Law Enforcement Tactics:** Current tactical operations (e.g., clear, search, hold).
- **Family Reunification Point:** Location of initial reunification efforts.
- **Resource Needs:** Requests for additional tactical teams, medical personnel, or victim support resources.

**HAZARD: Air Quality (Poor)****Low Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Air Quality** is the condition of the air and its impact on human health and the environment, which is often measured and communicated through the Air Quality Index. The Air Quality Index is a numerical scale (0-500) that categorizes air quality, with higher values indicating greater pollution and potential health risks. Poor air quality, which contains high levels of pollutants, is often hazy and dangerous to health and the environment.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- Maine Department of Environmental Protection Air Quality Advisory or Alert for multiple counties or the entire state (e.g., for PM2.5 from wildfire smoke, or Ozone)
- Observed widespread visible haze or smoke
- Reports from regional healthcare systems or Maine Center for Disease Control and Prevention of increased respiratory issues across the state
- AirNow.gov reporting "Unhealthy for Sensitive Groups" (Orange) or worse AQI values for Particulate Matter 2.5 or Ozone over a broad area

### Information Sources

- AirNow.gov
- Health Care Coalition of Maine
- Maine Centers for Disease Control and Prevention
- Maine Department of Environmental Protection
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Increased respiratory and cardiovascular health issues (e.g., asthma attacks, heart attacks)
- Increased emergency room visits and hospitalizations
- Disruption of outdoor activities and events
- Reduced visibility impacting transportation (e.g., driving, aviation)
- Negative economic impact on tourism and outdoor businesses
- Long-term health effects for vulnerable populations

### Risk Response Actions (Potential)

- **Issuance of Advisories/Alerts:** Maine Department of Environmental Protection issues Air Quality Advisories or Alerts (e.g., Ozone Action Days, PM2.5 advisories due to smoke).
- **Public Health Recommendations:** Maine Center for Disease Control and Prevention provides recommendations for vulnerable populations (e.g., reducing outdoor activity, using air purifiers).
- **Monitoring and Forecasting:** Enhanced monitoring of air quality across the state and updated forecasts.
- **Coordination with Sources:** Maine Department of Environmental Protection may coordinate with industrial sources or other contributors to air pollution to reduce emissions if appropriate.
- **Public Information:** Disseminate information on air quality levels, health impacts, and protective measures.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Impact:** Are multiple counties or significant population centers experiencing unhealthy (Orange) or very unhealthy (Red) Air Quality Index values?
- **Source of Pollution:** Is the poor air quality due to widespread sources (e.g., wildfire smoke from out-of-state, regional ozone event) or a localized industrial incident?
- **Public Health Strain:** Are hospitals reporting increased respiratory illnesses linked to air quality?
- **Duration:** Is the poor air quality event expected to be prolonged (multiple days)?

### Essential Elements of Information

- **Air Quality Index Values:** Real-time Air Quality Index values and primary pollutant (PM2.5, Ozone) by monitoring station/region.
- **Forecast:** Expected duration and changes in Air Quality Index for the coming hours/days.
- **Affected Populations:** Demographic breakdown of areas experiencing unhealthy air.
- **Public Health Reports:** Number of emergency room visits or hospitalizations for asthma, COPD, or other respiratory issues.
- **Public Advisories:** Specific actions recommended for sensitive groups and the general public.
- **Source Tracking:** Origin of smoke plumes (if applicable) or meteorological conditions contributing to ozone.
- **Resource Needs:** Potential need for public distribution of N95 masks for vulnerable populations.

**HAZARD: Algal Bloom****Low Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Harmful Algal Blooms** occur when algae – simple plants that live in the sea and freshwater – grow rapidly and produce toxic or harmful effects on people and aquatic organisms. Human illnesses caused by harmful algal blooms, though rare, can be debilitating or even fatal. Other algae are nontoxic but may cause hypoxia in the water as they decay, clog the gills of fish and invertebrates, smother aquatic vegetation, or contaminate drinking water.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- Maine Department of Environmental Protection or Maine Center for Disease Control and Prevention Public Health Advisory for multiple public water bodies (e.g., large lakes, significant rivers) indicating detected harmful algal blooms.
- Widespread reports from public, lake associations, or recreational users of discolored water, strong odors, or dead fish/animals in multiple water bodies
- Observed widespread surface scum or “paint-like” appearance on water in recreational or public supply areas

## Information Sources

- Lake Associations
- Maine Centers for Disease Control and Prevention
- Maine Department of Agriculture, Conservation and Forestry
- Maine Department of Environmental Protection
- Maine Public Water Systems

## Hazard Impacts (Potential)

- Contamination of drinking water sources
- Illness and death in humans and animals (e.g., pets, livestock, wildlife)
- Disruption of recreational activities (e.g., swimming, fishing, boating)
- Negative economic impact on tourism and fisheries
- Damage to aquatic ecosystems
- Odor issues impacting quality of life

## Risk Response Actions (Potential)

- **Public Health Advisories:** Maine Department of Environmental Protection and Maine Center for Disease Control and Prevention issue public health advisories for affected water bodies, warning against contact or consumption of contaminated water.
- **Water Quality Testing:** Maine Department of Environmental Protection conducts extensive testing to identify the type and concentration of harmful algae and potential toxins.
- **Source Identification and Mitigation:** Maine Department of Environmental Protection investigates potential sources of nutrient pollution contributing to the blooms and works on mitigation strategies.
- **Public Water System Consultation:** Maine Center for Disease Control and Prevention Drinking Water Program provides guidance to public water systems drawing from affected water bodies.
- **Public Information:** Educate the public on the dangers of harmful algal blooms and how to report suspected blooms.

- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Public Water Supply Threat:** Are harmful algal blooms impacting multiple public water supply sources, requiring alternative treatment or sources?
- **Widespread Recreational Impact:** Are multiple major lakes or recreational waterways under public health advisories due to harmful algal blooms?
- **Toxin Presence:** Are confirmed toxin levels (e.g., microcystins) in water bodies posing a direct human or animal health risk?
- **Ecological Impact:** Is there widespread impact on aquatic life (e.g., fish kills)?

### Essential Elements of Information

- **Affected Water Bodies:** List of specific lakes, rivers, or coastal areas with confirmed harmful algal blooms.
- **Bloom Characteristics:** Visual assessment (color, scum presence) and preliminary species identification.
- **Toxin Levels:** Confirmed concentrations of specific toxins (e.g., microcystin, anatoxin-a) from Department of Environmental Protection/Center for Disease Control and Prevention lab results.
- **Public Health Advisories:** Specific recommendations issued (e.g., avoid contact, no swimming, boiling water advisories if public water systems impacted).
- **Public Water System Status:** List of public water systems affected and actions being taken.
- **Animal/Fish Mortality:** Reports of pet illness/deaths or fish kills linked to blooms.
- **Resource Needs:** Additional lab capacity for testing, specialized monitoring equipment, or public awareness materials.

**HAZARD: Blight | Infestation****Low Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Blight | Infestations** includes any various plant diseases whose symptoms include sudden and severe yellowing, browning, spotting, withering, or dying of leaves, flowers, fruit, stems, or the entire plant, while infestation is defined as the state of being invaded or overrun by pests or parasites. Maine has seen a recent increase in several invasive forest pests that threaten forest health and the communities that rely on these natural resources.

**Probability:** Unlikely. These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- Widespread reports from county/municipal code enforcement, health departments, or public health agencies regarding dilapidated structures, significant rodent/insect infestations, or unaddressed waste issues impacting public health or safety across multiple communities
- Observed increase in public health issues (e.g., pest-related diseases) reported by Maine Center for Disease Control and Prevention across regions
- Formal requests for state assistance from multiple municipalities overwhelmed by blight issues

### Information Sources

- County Emergency Management Agencies
- Maine Centers for Disease Control and Prevention
- Maine Department of Agriculture, Conservation and Forestry
- Maine Department of Environmental Protection

### Hazard Impacts (Potential)

- Property value degradation and urban decay
- Health risks from pests (e.g., disease transmission, allergens)
- Loss of community morale and civic pride
- Increased financial burden on local government for cleanup and remediation
- Negative impact on tourism and business investment

### Risk Response Actions (Potential)

- **Assessment and Surveillance:** Maine Department of Agriculture, Conservation and Forestry (e.g., Maine Forest Service, Plant Health) and Maine Center for Disease Control and Prevention conduct surveys and assessments to determine the scope and severity of infestations.
- **Regulatory Actions:** Maine Department of Agriculture, Conservation and Forestry may implement quarantines or other regulatory measures to prevent spread.
- **Technical Assistance:** Provide technical assistance and guidance to municipalities, landowners, and farmers on pest management strategies.
- **Public Health Interventions:** Maine Center for Disease Control and Prevention addresses public health concerns related to infestations (e.g., vector control for disease-carrying pests).
- **Financial Assistance (if applicable):** Explore potential state or federal funding for remediation efforts.
- **Public Information:** Educate the public on identifying and managing pests, and preventing their spread.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Impact on Public Health/Safety:** Are multiple municipalities reporting widespread rodent/insect infestations or dilapidated structures posing significant, uncontained public health risks (e.g., disease vectors, structural collapse threat)?
- **Resource Overwhelm:** Are local resources overwhelmed, requiring significant state intervention and funding?
- **Economic Impact:** Is the blight/infestation causing significant economic impact to multiple communities (e.g., property devaluation, business closures)?
- **Disease Outbreak Potential:** Is there a confirmed or high potential for vector-borne disease outbreaks associated with the infestation?

### Essential Elements of Information

- **Affected Communities:** List of specific municipalities reporting widespread blight/infestation issues.
- **Type of Infestation:** Identification of specific pests (e.g., rats, bed bugs, specific insect vectors) and estimated population levels.
- **Health Reports:** Reports of pest-related illnesses from local health officers or Maine Center for Disease Control and Prevention.
- **Blighted Structure Count:** Number of unsafe or condemned structures in affected areas.
- **Local Resource Status:** Capacity of local code enforcement and health departments to manage the issue.
- **Complaints/Reports:** Number of public complaints received.
- **Resource Needs:** Requests for state-level pest control expertise, demolition assistance, public health outreach materials, or funding.

**HAZARD: Civil Unrest | Civil Disorder****Low Risk**

**Hazard Category:** Human-Caused

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Civil Unrest** is a term that includes limited political violence (such as acts of ‘terrorism’, individual assassinations, etc.), sporadic violent collective action (such as riots), or nonviolent and mildly violent collective action (such as protests, demonstrations, etc.) – all of which tend to take place in times of peace.

**Civil Disorder** describes any public disturbance involving acts of violence by assemblages of three or more persons, which causes an immediate danger of or results in damage or injury to the property or person of any other individual.

**Probability:** Unlikely. These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- Intelligence reports from law enforcement (Maine State Police, Maine Information and Analysis Center, Federal Bureau of Investigation) indicating planned large-scale demonstrations with high potential for violence or widespread disruption
- Observed large gatherings of people with escalating rhetoric or behavior in multiple communities
- Widespread reports of vandalism, looting, or physical altercations in cities or towns
- Activation of mutual aid requests for law enforcement assistance from multiple jurisdictions

### Information Sources

- County Emergency Management Agencies
- Federal Bureau of Investigation
- Maine Department of Public Safety
- Maine Information & Analysis Center
- Maine State Police

### Hazard Impacts (Potential)

- Injuries and fatalities among protestors and responders
- Significant property damage and destruction
- Disruption of transportation and business operations
- Heightened public fear and anxiety
- Overwhelm of law enforcement and emergency services
- Negative impact on community relations and trust
- Long-term economic impact due to business closures and reduced investment

### Risk Response Actions (Potential)

- **Law Enforcement Coordination:** Maine State Police and local law enforcement agencies coordinate intelligence sharing and operational planning.
- **Resource Mobilization:** Deployment of state law enforcement resources (e.g., Maine State Police tactical teams) to assist local jurisdictions.
- **Incident Command:** Establish Unified Command at the scene of incidents to manage response.
- **Public Safety and Security:** Implement measures to protect public safety, critical infrastructure, and private property.
- **De-escalation and Negotiation:** Law enforcement agencies employ de-escalation tactics and engage in negotiations where appropriate.
- **Public Information:** Issue public safety announcements and maintain transparency, while also addressing misinformation.
- **National Guard Deployment (if necessary):** Governor may authorize deployment of the Maine National Guard for support roles (e.g., security, logistics) if local resources are overwhelmed.

- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Threat to Life/Property:** Is there widespread violence, looting, or significant property damage across multiple cities or towns?
- **Law Enforcement Overwhelm:** Are local law enforcement agencies overwhelmed, requiring significant state (Maine State Police, National Guard) intervention?
- **Critical Infrastructure Targeted:** Are protests or violent acts targeting critical infrastructure (e.g., government buildings, transportation hubs, utilities)?
- **Duration/Escalation:** Is the unrest escalating in intensity or spreading geographically, indicating a prolonged event?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Incident Locations:** Specific cities, neighborhoods, or critical facilities where unrest is occurring.
- **Number of Participants:** Estimated crowd sizes and observed behavior (peaceful, violent, destructive).
- **Law Enforcement Deployment:** Number of Maine State Police units, tactical teams, and National Guard personnel deployed.
- **Injuries/Arrests:** Number of civilian and law enforcement injuries, and number of arrests.
- **Property Damage Reports:** Specific reports of vandalism, looting, or arson.
- **Intelligence:** Any confirmed intelligence regarding planned future actions or external agitators.
- **Road Closures/Curfews:** Implementation of road closures or curfews.
- **Resource Needs:** Requests for additional law enforcement personnel, crowd control equipment, or specialized units.

**HAZARD: Dam Failure****Low Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Dam Failures** include any malfunction or abnormality outside the design assumptions and parameters that adversely affect a dam’s primary function of impounding water. Lesser degrees of failure can progressively lead to or heighten the risk of a catastrophic failure, which may result in an uncontrolled release of the reservoir and can have a severe effect on persons and properties downstream.

**Dam Breaches** can cause rapid and expansive downstream flooding, loss of life, damage to property, and the forced evacuation of people.

**Probability:** Rare. This event requires unusual circumstances to impact the state. Historical records show no precedent for this type of event in Maine.

**Impact:** Extensive. An event causes widespread and severe operational impact, a sensitive data breach undermining core interests, extensive property damage causing major operational disruptions, or impaired organizational function. News coverage generates intense national scrutiny and potential operational restrictions.

**Trigger Events/Warning Signs**

- Notification from major dam operators (e.g., Brookfield Renewable Power) of a significant dam integrity issue, uncontrolled release, or imminent failure impacting downstream communities
- Immediate increase in downstream river levels/flow rates observed by U.S. Geological Survey gauges or state monitoring networks indicating a potential or actual dam breach
- Emergency reports from public safety or county emergency management agencies of visible dam damage or overtopping

### Information Sources

- County Emergency Management Agencies
- Maine Emergency Management Agency, Dam Safety Program
- Maine State Police
- Major Dam Operators
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME
- U.S. Geological Survey River Gauges

### Hazard Impacts (Potential)

- Catastrophic flooding downstream, causing widespread destruction
- Mass casualties and injuries
- Displacement of resident populations/Sheltering
- Significant damage to infrastructure (e.g., roads, bridges, utilities)
- Contamination of water sources
- Long-term environmental damage
- Economic devastation to affected communities

### Risk Response Actions (Potential)

- **Emergency Notification and Warning:** Maine Department of Environmental Protection Dam Safety Program immediately notifies MEMA, National Weather Service, and downstream communities of a dam integrity issue or failure.
- **Evacuation Orders:** MEMA, in coordination with county emergency management agencies, facilitates and supports evacuation orders for downstream areas.
- **Search and Rescue:** Maine Warden Service, Marine Patrol, and local first responders conduct water rescues.
- **Infrastructure Protection:** Maine Department of Transportation assesses and addresses impacts on roads and bridges.
- **Damage Assessment:** MEMA and Maine Department of Environmental Protection conduct damage assessments.

- **Technical Assistance:** Maine Department of Environmental Protection Dam Safety Program provides technical expertise for post-failure assessment and potential temporary repairs.
- **Public Information:** Provide critical information to downstream communities.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Confirmed Failure/Imminent Threat:** Is there a confirmed failure or imminent threat of failure of a major dam, impacting multiple downstream communities?
- **Population at Risk:** Estimated number of people in the inundation zone requiring immediate evacuation.
- **Critical Infrastructure Impact:** Are major transportation routes, power generation facilities, or water treatment plants downstream at immediate risk?
- **Life Safety Threat:** Are widespread water rescues or fatalities occurring in the inundation zone?

### Essential Elements of Information

- **Dam Identification:** Name and location of the dam.
- **Failure Status:** Confirmed breach, partial breach, or imminent threat of failure.
- **Downstream Inundation Zone:** Specific communities, areas, and estimated populations within the inundation zone.
- **Evacuation Status:** Number of people evacuated and status of evacuation routes.
- **River Flow/Water Level:** Real-time and forecast river levels (inundation depth) downstream.
- **Affected Infrastructure:** Specific roads, bridges, and utilities compromised downstream.
- **Search and Rescue Operations:** Locations and number of water rescues underway.
- **Resource Needs:** Requests for swift water rescue teams, air assets for rescue, or specialized engineering assessment teams.

**HAZARD: Earthquake****Low Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Earthquakes** are sudden motion or trembling caused by a release of strain accumulated within or along the edge of earth's tectonic plates. This complex motion is caused by a sudden shifting or breaking of subsurface rock to relieve built up stress. The energy released at the center produces a variety of seismic waves that travel out in all directions through the surrounding rock. Some of these waves make their way to the surface and travel out across the countryside.

**Probability:** Unlikely. These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- U.S. Geological Survey Earthquake Hazards Program notification of an earthquake with a magnitude and epicenter that could impact the State of Maine (even if distant)
- Widespread reports from public via 911 of shaking, rumbling, or minor damage (e.g., cracks in plaster, displaced objects)
- Observed regional infrastructure damage (e.g., broken water mains, widespread power outages, gas leaks) with no apparent localized cause

### Information Sources

- Central Maine Power/Versant Power
- Maine Department of Public Safety
- Maine Public Water Systems
- Maine State Police
- Maine Public Utilities Commission
- U.S. Geological Survey Earthquake Hazards Program

### Hazard Impacts (Potential)

- Widespread structural collapse of buildings and infrastructure
- Mass casualties and injuries
- Disruption of utilities (e.g., power, water, gas, communication)
- Disruption of transportation networks
- Fires ignited by damaged gas lines or electrical systems
- Landslides and liquefaction
- Significant economic losses and long-term recovery challenges

### Risk Response Actions (Potential)

- **Damage Assessment:** Rapid assessment of structural damage to buildings and infrastructure by state engineers (e.g., Maine Department of Transportation, professional licensing boards) and local building officials.
- **Search and Rescue:** State and local urban search and rescue teams are deployed.
- **Utility Assessment and Restoration:** Coordination with utilities (Central Maine Power, Versant Power, public water systems, gas companies) to assess damage and restore services.
- **Public Safety:** Maine State Police and local law enforcement secure affected areas and respond to emergencies.
- **Sheltering and Mass Care:** MEMA and local emergency management agencies activate shelters.
- **Geological Survey:** Maine Geological Survey provides expert analysis of seismic activity and potential aftershocks.

- **Public Information:** Provide safety information on aftershocks, gas leaks, and damaged structures.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Magnitude and Location:** What is the magnitude and epicenter location and is it a significant event for Maine (e.g., M4.0+ within or very near the state)?
- **Widespread Damage:** Are there widespread reports of structural damage to buildings or critical infrastructure across multiple counties?
- **Life Safety Threat:** Are there confirmed fatalities, serious injuries, or widespread entrapments?
- **Critical Infrastructure Failure:** Are major utilities (power, water, gas) or transportation networks experiencing widespread failures?

### Essential Elements of Information

- **U.S. Geological Survey Alert:** Confirmation and details from U.S. Geological Survey (magnitude, depth, epicenter, "Did You Feel It?" reports).
- **Damage Reports:** Initial reports of building collapse, significant structural damage, broken water mains, gas leaks, and power outages by location.
- **Aftershock Activity:** Any confirmed aftershocks and their magnitudes.
- **Search and Rescue Status:** Locations where urban search and rescue operations are active.
- **Utility Status:** Specific areas experiencing power, water, or gas outages, and estimated time of restorations.
- **Road/Bridge Status:** Reports of damage or closures to state roads and bridges.
- **Public Safety Incidents:** Reports of fires, hazardous materials releases, or other immediate threats.
- **Resource Needs:** Requests for urban search and rescue teams, structural engineers, utility repair crews, or medical surge support.

**HAZARD: Erosion****Low Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Erosion** is the process of the gradual wearing away of land masses. The focus of erosion as a hazard in Maine is widespread soil erosion, including the detachment, transport, and deposition of sediment. There are generally four recognized agents of sediment erosion: water, wind, ice/glaciers, and mass wasting/gravity. The focus of this hazard profile is on erosion caused by water movement, with a primary focus on coastal processes.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- Reports from Maine Department of Transportation, Maine Department of Environmental Protection, or coastal municipalities of significant shoreline recession, widespread sloughing of riverbanks (e.g., Kennebec, Penobscot), or undermining of critical state infrastructure (state roads, bridges, utilities)
- Observed widespread exposed utility lines or foundations due to soil loss along major waterways or coastlines
- Formal requests from municipalities for state assistance due to severe erosion threats

### Information Sources

- County Emergency Management Agencies
- Maine Department of Transportation
- Maine Department of Environmental Protection
- Maine Geological Survey

### Hazard Impacts (Potential)

- Loss of land and property, especially along coastlines or riverbanks
- Damage to infrastructure (e.g., roads, utilities, pipelines)
- Increased sedimentation in waterways, impacting aquatic life and navigation
- Threat to critical facilities and residential areas
- Environmental degradation and habitat loss
- Economic impact on tourism and property values

### Risk Response Actions (Potential)

- **Assessment and Monitoring:** Maine Department of Environmental Protection, Maine Department of Transportation, and Maine Geological Survey conduct assessments of affected shorelines and riverbanks.
- **Emergency Permitting:** Maine Department of Environmental Protection may expedite emergency permits for stabilization measures.
- **Technical Assistance:** Provide technical assistance to municipalities and landowners on erosion control measures.
- **Infrastructure Protection:** Maine Department of Transportation implements measures to protect state roads and bridges from undermining.
- **Financial Assistance:** Explore potential state or federal funding for erosion control projects.
- **Long-term Planning:** Integrate erosion impacts into long-term coastal and riverine planning.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Threat to Critical Infrastructure:** Is severe erosion threatening or compromising major state infrastructure (e.g., I-95, Route 1, critical bridges, major utility lines)?
- **Population Displacement:** Is erosion causing imminent threat to populated areas requiring evacuations?
- **Widespread Impact:** Is significant erosion occurring across multiple coastal or major riverine communities?
- **Long-term Economic Impact:** Is the erosion causing severe, long-term economic damage to coastal industries or private property?

### Essential Elements of Information

- **Affected Locations:** Specific coastal areas, riverbanks, or infrastructure sites impacted by severe erosion.
- **Erosion Rate:** Measured or estimated rate of land/bank loss (feet per event/day).
- **Threat to Structures:** Number of buildings, roads, or utilities at imminent risk of collapse or failure.
- **Geological Assessment:** Preliminary geological assessments of stability and risk.
- **Remediation Efforts:** Status of any temporary stabilization measures being implemented.
- **Public Safety Zones:** Defined hazard areas where access is restricted.
- **Resource Needs:** Requests for heavy equipment for temporary stabilization, engineering expertise, or emergency permitting.

**HAZARD: Extreme Cold****Low Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Annex C - Hazard & Threat Response, Appendix 2: Severe Seasonal Weather (Winter)

**Definition:**

**Extreme Cold** is defined as temperatures much colder than local and seasonal average conditions. Health effects of extreme cold temperatures are often exacerbated by wind chill. In Maine, these temperature definitions vary from –35F in the North to –25F across the Southwest. These events can be hazardous to health and infrastructure.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- National Weather Service Wind Chill Warning or Extreme Cold Watch/Warning for multiple counties
- National Weather Service forecasts predicting prolonged periods of dangerously low temperatures (e.g., <0°F) and wind chills across a broad area of the state
- Reports from hospitals or regional healthcare coalitions of increased cold-related injuries
- Widespread increased demand for welfare checks on vulnerable populations
- Notifications from Central Maine Power or Versant Power regarding increased energy demand and potential strain on the grid

### Information Sources

- Central Maine Power/Versant Power
- County Emergency Management Agencies
- Health Care Coalition of Maine
- Maine Centers for Disease Control and Prevention
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Cold weather injuries (e.g., hypothermia, frostbite) and fatalities
- Increased demand on healthcare services
- Disruption of utilities (e.g., power outages due to increased demand, frozen pipes)
- Disruption of transportation networks due to hazardous road conditions
- Increased issues with vulnerable populations (e.g., homeless, elderly)
- Damage to infrastructure (e.g., water pipes bursting)
- Staffing shortfalls for essential services

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues Wind Chill Warnings and Extreme Cold Watches/Warnings.
- **Warming Center Activation:** MEMA and county emergency management agencies coordinate the opening and operation of warming centers statewide.
- **Public Health Advisories:** Maine Center for Disease Control and Prevention issues advisories on cold-related injuries (hypothermia, frostbite) and safety precautions.
- **Welfare Checks:** State agencies and local partners conduct welfare checks on vulnerable populations (elderly, homeless).
- **Energy Grid Monitoring:** Central Maine Power and Versant Power monitor increased energy demand and potential strain on the grid.
- **Homeless Outreach:** Collaboration with social service agencies to ensure outreach to homeless populations.

- **Public Information:** Provide tips for staying warm, preventing frozen pipes, and generator safety.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Prolonged Extreme Temperatures:** Are multiple consecutive days of dangerously low temperatures (e.g., <0°F) and severe wind chills (e.g., < -20°F) forecasted for large portions of the state?
- **Healthcare Strain:** Are hospitals reporting significant increases in cold-related injuries (hypothermia, frostbite)?
- **Vulnerable Population Threat:** Is there a widespread threat to vulnerable populations (elderly, chronically ill, unhoused) due to lack of heat or shelter?
- **Energy Grid Stress:** Are utilities reporting record energy demand and potential for system strain or rolling blackouts?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Temperature/Wind Chill:** Current and forecast temperatures and wind chill values by region/county.
- **Warming Center Status:** Locations, hours of operation, and capacity.
- **Cold-Related Illness Reports:** Number of emergency room visits or hospitalizations for hypothermia/frostbite.
- **Welfare Check Needs:** Requests for welfare checks on vulnerable individuals.
- **Utility Load/Outage Status:** Real-time electricity demand, and any significant power outages impacting heating.
- **Homeless Outreach:** Status of outreach efforts to unsheltered populations.
- **Public Awareness Campaigns:** Reach of public messaging on cold weather safety.
- **Resource Needs:** Requests for heating fuel, blankets, transportation to warming centers, or additional medical personnel.

**HAZARD: Forest Pests | Damage Agents****Low Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Forest Pest | Damage Agents** are an insect, disease, weed or other abiotic or biotic factor that can cause damage or death to a host tree. Some forest pests, such as the brown tail moth, can cause damage to forests as well as pose direct health risks to humans. Damage Agents are categorized as: Insects, Diseases, Weeds, and Other Damage Agents. Within insects and diseases, the categories are broken out into the area of the tree damaged, or the type of damage inflicted on the tree; i.e., wood boring, gall makers, and foliage diseases. Weeds are divided by the habit of the weed species; e.g., tree, shrub, and vine. Other damage agents are divided into three sections by cause of the damage to the host tree: Abiotic Damage, Human Damage, and Animal Damage.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- Maine Forest Service (Maine Forest Service) alerts regarding new or escalating pest outbreaks (e.g., Browntail Moth, Emerald Ash Borer, Hemlock Woolly Adelgid) impacting significant acreage or multiple counties
- Observed widespread defoliation, tree mortality, or signs of infestation (e.g., insect frass, galleries in wood) across large, forested regions
- Reports from local loggers or landowners of significant timber damage across multiple areas

## Information Sources

- Maine Department of Agriculture, Conservation and Forestry
- Maine Department of Environmental Protection
- Maine Forest Service
- University of Maine Cooperative Extension

## Hazard Impacts (Potential)

- Widespread tree mortality and defoliation
- Increased risk of catastrophic wildfires due to dead vegetation
- Loss of timber resources and economic impact on forestry industry
- Damage to ecosystems and wildlife habitats
- Negative impact on tourism and outdoor recreation
- Increased costs for pest management and forest restoration

## Risk Response Actions (Potential)

- **Surveillance and Monitoring:** Maine Forest Service (Maine Forest Service) conducts aerial and ground surveys to track pest outbreaks.
- **Quarantine Implementation:** Maine Forest Service implements quarantines to prevent the movement of infested materials.
- **Treatment Programs:** Maine Forest Service may implement or coordinate treatment programs (e.g., biological controls, targeted pesticide applications) in affected areas.
- **Public Education and Outreach:** Maine Forest Service and University of Maine Cooperative Extension educate landowners and the public on pest identification, impact, and management.
- **Research and Development:** Support research into new pest management strategies.
- **Forest Health Advisories:** Maine Forest Service issues advisories and reports on forest health conditions.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Outbreak:** Are new or escalating pest outbreaks (e.g., Browntail Moth, Emerald Ash Borer, Hemlock Woolly Adelgid) impacting significant acreage (e.g., >10,000 acres) or multiple counties?
- **Economic Impact:** Is there a significant economic threat to Maine's timber industry, tourism, or agricultural sector?
- **Public Health Threat:** Is the pest (e.g., Browntail Moth) posing a widespread public health threat (e.g., skin rashes, respiratory issues)?
- **Ecological Impact:** Is the infestation threatening critical ecosystems or endangered species habitat?

### Essential Elements of Information

- **Pest Identification:** Specific species of pest confirmed.
- **Geographic Spread:** Current extent of infestation (acres, towns, counties affected).
- **Damage Assessment:** Severity of defoliation, tree mortality, or specific damage observed.
- **Population Levels:** Estimated pest population density.
- **Public Health Reports:** Number of public health complaints or medical visits related to pest exposure (if applicable).
- **Control Efforts:** Status of any active pest control programs (e.g., aerial spraying, biological controls).
- **Quarantine Status:** Any areas under quarantine for movement of affected materials.
- **Resource Needs:** Requests for specialized Maine Forest Service crews, diagnostic lab capacity, or public health outreach materials.

**HAZARD: Geomagnetic Storm (Space Weather)****Low Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Geomagnetic Storms** are major disturbances of Earth's magnetosphere that occurs when there is a very efficient exchange of energy from the solar wind into the space environment surrounding Earth. The largest storms that result from these conditions are associated with solar coronal mass ejections where a billion tons or so of plasma from the sun, with its embedded magnetic field, arrives at Earth. Coronal mass ejections typically take several days to arrive at Earth, but have been observed, for some of the most intense storms, to arrive in as short as 18 hours. Geomagnetic storms can produce electromagnetic fields that induce extreme currents in wires, disrupting power lines, and even causing widespread power outages.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- National Oceanic and Atmospheric Administration Space Weather Prediction Center issuing a Geomagnetic Storm Watch/Warning (G3 or higher) indicating potential for widespread impacts
- Notifications from power utility companies (e.g., Central Maine Power, Versant Power) of potential grid stress, impacts from geomagnetically induced currents, or activated mitigation procedures
- Reports of widespread disruption to GPS, satellite communications, or shortwave radio affecting state operations (e.g., Emergency Medical Services, aviation)

## Information Sources

- Amateur radio operators
- Central Maine Power/Versant Power
- County Emergency Management Agencies
- Maine Department of Transportation
- National Weather Service Space Weather Prediction Center
- Maine Public Utilities Commission

## Hazard Impacts (Potential)

- Disruption and potential damage to electrical grids, leading to widespread power outages
- Disruption of satellite communications (e.g., GPS, weather satellites)
- Disruption of radio communications, impacting aviation and emergency services
- Damage to pipelines due to induced currents
- Impacts on space-based assets and operations
- Long-term economic and social disruption from infrastructure failures

## Risk Response Actions (Potential)

- **Information Dissemination:** MEMA disseminates alerts from National Oceanic and Atmospheric Administration Space Weather Prediction Center to critical infrastructure operators.
- **Utility Coordination:** Coordination with Central Maine Power and Versant Power to implement mitigation procedures for potential grid stress from geomagnetically induced currents.
- **Communications Assessment:** Assess potential impacts on state communications systems (e.g., radio, satellite, GPS) and identify alternative communication methods.
- **Aviation Advisories:** Maine Aeronautics issues advisories to pilots regarding potential GPS disruption.
- **Public Information:** Educate the public on potential impacts (e.g., power fluctuations, GPS inaccuracies) and advise on preparedness.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Storm Severity:** Is National Oceanic and Atmospheric Administration Space Weather Prediction Center issuing a Geomagnetic Storm Watch/Warning (G3 or higher) indicating high potential for widespread impacts to Maine?
- **Grid Stability Threat:** Are major utilities reporting significant grid stress or actual system instabilities due to geomagnetically induced currents?
- **Communication Disruption:** Is there widespread disruption to essential state communications (e.g., Emergency Medical Services radio, satellite phones, GPS) affecting emergency response?
- **Air/Sea Navigation Impact:** Is GPS degradation significantly impacting aviation or maritime navigation in or near Maine?

### Essential Elements of Information

- **SWPC Forecast:** Current and forecast Kp-index, G-scale, and expected duration of the storm.
- **Utility Status:** Real-time reports from Central Maine Power/Versant Power on geomagnetically induced currents levels, mitigation actions taken, and any observed grid anomalies or outages.
- **Communication System Status:** Reports of degradation or outages for state radio systems, satellite communications, and GPS accuracy.
- **Aviation/Maritime Advisories:** Any advisories issued to pilots or mariners regarding navigation impacts.
- **Observed Aurora:** Reports of aurora borealis (an indicator of geomagnetic activity).
- **Resource Needs:** Potential need for backup navigation systems or alternative communication methods.

**HAZARD: Hail****Low Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference:**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

**Definition:**

**Hail** is a form of precipitation occurring when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere where they freeze into ice. Hailstones then grow by colliding with liquid water drops that freeze onto the hailstone's surface. The hail falls when the thunderstorm's updraft can no longer support the weight of the hailstone, which can occur if the stone becomes large enough or the updraft weakens. Hailstones larger than 1 inch in diameter are capable of causing property damage. But from an agricultural perspective, hailstones below 1 inch diameter can wipe out a crop of apples, peaches, strawberries, and other fruit in a matter of seconds. Hail is a common cause of crop loss in apples and protective netting is used in regions where hailstorms are more prominent.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- National Weather Service Severe Thunderstorm Warning for multiple counties indicating potential for large hail (1 inch diameter or greater)
- Widespread reports from public or emergency services across regions of significant hail accumulation or property damage (e.g., widespread broken windows, extensive vehicle damage, agricultural crop damage)
- Observed widespread hail during a thunderstorm event

### Information Sources

- County Emergency Management Agencies
- Maine Department of Agriculture, Conservation and Forestry
- Maine Department of Public Safety
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Significant damage to property (e.g., roofs, vehicles, windows)
- Crop damage and agricultural losses
- Injuries to people and animals caught outdoors
- Disruption of transportation due to hazardous road conditions
- Economic impact on homeowners, businesses, and agriculture
- Increased demand for emergency services and insurance claims

### Risk Response Actions (Potential)

- **Warning Dissemination:** National Weather Service issues Severe Thunderstorm Warnings, and MEMA disseminates them.
- **Damage Assessment:** County emergency management agencies and local responders conduct damage assessments, particularly for agricultural impacts (Maine Department of Agriculture, Conservation and Forestry).
- **Public Safety:** Maine State Police and local law enforcement respond to reports of property damage.
- **Public Information:** Advise public on seeking shelter during hail events and reporting damage.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Damage:** Is there widespread, significant property damage (e.g., widespread broken windows, roof damage) or agricultural crop loss across multiple counties?
- **Hail Size/Duration:** Are reports indicating large hail (e.g., >1 inch diameter) over a prolonged period in populated areas?
- **Life Safety Threat:** Are there reports of serious injuries directly related to hail?

### Essential Elements of Information

- **Hail Size:** Confirmed maximum hail size (e.g., golf ball, baseball) by location.
- **Geographic Extent:** Specific towns/regions impacted by significant hail.
- **Damage Reports:** Initial reports of vehicle damage, roof damage, broken windows, and agricultural crop damage.
- **Injuries:** Any reports of injuries.
- **Storm Path:** General path and timing of the most severe hail-producing storms.
- **Resource Needs:** Potential need for building materials, tarping, or agricultural assessment teams.

**HAZARD: HAZMAT – Fixed Site Release****Low Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

A **HAZMAT Release - Fixed Site** is any unplanned or accidental discharge, emission, spilling, leaking, pumping, pouring, emptying, escaping, dumping, or disposal of hazardous materials (HAZMAT) from a stationary location or facility. This includes incidents occurring within industrial plants, storage facilities, laboratories, waste treatment centers, or any other fixed location where hazardous materials are stored, processed, used, or disposed of.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- 911 calls or direct notifications to Maine State Police, Maine Department of Environmental Protection, or local first responders reporting a major explosion, fire, or visible plume/odor from a fixed industrial or chemical facility
- Emergency responder reports (fire/Emergency Medical Services/law enforcement/HAZMAT) from multiple jurisdictions identifying hazardous materials release requiring regional response
- Alarms from facility monitoring systems indicating a significant chemical release
- Notification from facility management about a major incident

### Information Sources

- County emergency management agencies
- Facility management/emergency contacts
- Maine State Police
- Maine Department of Environmental Protection
- Maine Department of Public Safety
- Maine Office of State Fire Marshal

### Hazard Impacts (Potential)

- Exposure to hazardous materials, causing illness, injury, or fatality
- Evacuation or sheltering-in-place of affected populations
- Contamination of air, water, and soil
- Disruption of transportation routes and business operations near the site
- Environmental damage and long-term remediation efforts
- Public fear and psychological impact
- Significant economic losses for affected businesses and communities

### Risk Response Actions (Potential)

- **Emergency Notification:** Maine Department of Environmental Protection, Maine State Police, and local first responders are immediately notified.
- **Unified Command:** Establish Unified Command at the incident scene, including facility management.
- **Containment and Mitigation:** Deployment of state HAZMAT teams to contain and mitigate the release.
- **Evacuation/Shelter-in-Place:** Maine State Police and local law enforcement implement evacuation or shelter-in-place orders for affected populations.
- **Environmental Monitoring and Cleanup:** Maine Department of Environmental Protection conducts extensive environmental monitoring.
- **Decontamination:** Coordination of decontamination procedures.
- **Investigation:** Maine Department of Environmental Protection and Maine Fire Marshal's Office lead investigations into the cause and compliance issues.

- **Public Health Assessment:** Maine Center for Disease Control and Prevention assesses public health impacts and provides guidance.
- **Public Information:** Provide clear and concise information to the public regarding the hazard and safety measures.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Substance Identification:** Is the hazardous material identified, and what is its immediate threat level (e.g., explosive, toxic by inhalation, corrosive)?
- **Population at Risk:** How many people are potentially impacted within the hazard zone, requiring evacuation or shelter-in-place?
- **Environmental Release Severity:** Has there been a significant release into a major waterway, air, or sensitive ecological area requiring widespread cleanup?
- **Critical Infrastructure Impact:** Is a major industrial facility or surrounding critical infrastructure (e.g., power plant, water treatment facility) compromised?
- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population?

### Essential Elements of Information

- **Incident Location:** Specific address and facility name.
- **HAZMAT ID:** Chemical name, UN number, or other identification.
- **Release Status:** Type of release (e.g., vapor, liquid), quantity released, and whether it's contained or ongoing.
- **Plume/Vapor Cloud:** Size, direction, and potential impact area of any vapor cloud or visible plume.
- **Evacuation/Shelter-in-Place Zone:** Defined geographic area for protective actions, and number of people affected.
- **Environmental Impact:** Observations of impact on waterways, soil, or air quality.
- **Resource Needs:** Specific HAZMAT team needs, specialized equipment, decontamination units, environmental cleanup contractors, or facility specialists.

**HAZARD: Heavy Snow****Low Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Annex C - Hazard & Threat Response, Appendix 2: Severe Seasonal Weather (Winter)

**Definition:**

**Heavy snow** is generally defined as a snowfall of 6 to 8 inches or more within 24 hours which disrupts or slows transportation systems and public safety departments' response capability.

**Probability:** Likely. This event exhibits a strong potential to impact the state within the next year. Past experiences in Maine and current regional situations point to a near future occurrence.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- National Weather Service Winter Storm Warning or Heavy Snow Advisory for multiple counties
- National Weather Service forecasts predicting widespread 6 inches or more of snow accumulation
- Reports from Maine Department of Transportation, Maine State Police, or county emergency management agencies of rapidly accumulating snow making state roads difficult to impossible across multiple regions
- Observed widespread snowfall exceeding a rate of 1-2 inches per hour over a large area

### Information Sources

- County emergency management agencies
- Maine Department of Transportation
- Maine State Police
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Disruption of transportation networks, leading to road closures and travel delays
- Power outages due to downed lines or increased demand
- Disruption of critical facilities (e.g., hospitals) and services (e.g., emergency response)
- Increased risk of cold weather injuries
- Economic impact due to business closures and lost productivity
- Strain on snow removal resources
- Increased issues with vulnerable populations

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues Winter Storm Warnings or Heavy Snow Advisories.
- **Transportation Management:** Maine Department of Transportation initiates snow removal operations, issues travel advisories and may implement travel bans. Maine State Police enforces restrictions.
- **Power Outage Preparedness:** Utilities prepare for potential power outages and stage crews.
- **Sheltering and Warming Centers:** MEMA and local emergency management agencies prepare for and activate warming centers and disaster emergency shelters if needed due to power outages or impassable roads.
- **Resource Deployment:** State assets (e.g., National Guard) are prepared for deployment for welfare checks or transportation.
- **Public Information:** Issue advisories on safe driving, shoveling safety, and preparedness.

- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Significant Accumulation:** Is widespread heavy snow (e.g., >6-12 inches) forecasted or occurring across multiple counties?
- **Transportation Disruption:** Are major interstates and critical state routes becoming impassable, severely limiting emergency response?
- **Prolonged Power Outages:** Is the heavy, wet snow causing widespread power outages with prolonged restoration estimates?
- **Life Safety Threat:** Are there widespread reports of stranded motorists or medical emergencies due to impassable roads?

### Essential Elements of Information

- **Snowfall Accumulation Rates:** Current and forecast accumulation rates (in inches per hour) for specific regions/counties.
- **Total Accumulation:** Expected total snowfall (in inches) by county/region.
- **Road Conditions:** Real-time status of specific state roads and bridges (open, closed, impassable) from Maine Department of Transportation and Maine State Police.
- **Power Outage Details:** Number of customers affected by utility, by county/town, and estimated time of restoration.
- **Shelter Status:** Locations, capacities, and current occupancy of activated warming/emergency shelters.
- **Medical Transport Capability:** Ability of Emergency Medical Services to respond to and transport patients in affected areas.
- **Resource Needs:** Specific requests from counties/municipalities for snow removal equipment, shelter supplies, or personnel.

**HAZARD: Industrial Accident****Low Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

An **industrial accident** is any sudden, unexpected, and unintended event occurring within an industrial facility or during industrial processes that results in harm or potential harm to people, property, or the environment. These events can involve a wide range of hazards and may lead to injuries, fatalities, equipment damage, production losses, fires, explosions, or the release of hazardous materials.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- 911 calls or direct notifications to Maine State Police, Maine Department of Environmental Protection, or local first responders reporting a major explosion, fire, significant equipment failure, or widespread release of materials at an industrial site (e.g., paper mills, major manufacturing plants)
- Emergency responder reports confirming an industrial incident with significant hazards, mass casualties, or regional impact
- Notifications from major industrial facilities about an incident impacting safety or operations

### Information Sources

- County Emergency Management Agencies
- Facility management/emergency contacts
- Maine Department of Environmental Protection
- Maine Department of Public Safety
- Maine Office of State Fire Marshal
- Maine State Police
- Occupational Safety and Health Administration

### Hazard Impacts (Potential)

- Injuries and fatalities to workers and nearby populations
- Release of hazardous materials (e.g., chemicals, gases, fires, explosions)
- Evacuation or sheltering-in-place of affected populations
- Significant property damage and infrastructure disruption
- Environmental contamination
- Economic impact due to plant closure, cleanup costs, and legal liabilities
- Public fear and loss of confidence in industrial safety

### Risk Response Actions (Potential)

- **Emergency Notification:** 911 calls and direct notifications to Maine State Police, Maine Department of Environmental Protection, and local first responders.
- **Unified Command:** Establish Unified Command at the incident scene with relevant state agencies (Maine State Police, Maine Department of Environmental Protection, Maine Fire Marshal's Office) and facility management.
- **Search and Rescue:** State and local resources (e.g., technical rescue teams) deployed if structural collapse or entrapment occurs.
- **HAZMAT Response (if applicable):** If hazardous materials are involved, HAZMAT response protocols are activated.
- **Medical Response:** Maine Emergency Medical Services coordinates medical response for mass casualties if applicable.

- **Investigation:** Maine Fire Marshal's Office and OSHA lead investigations into the cause and compliance.
- **Environmental Assessment:** Maine Department of Environmental Protection assesses environmental impacts.
- **Public Information:** Managed public information flow to address safety concerns and provide accurate updates.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Threat to Life/Safety:** Are there confirmed fatalities, serious injuries, or widespread impacts to the surrounding population (e.g., through explosions, fire, or toxic release)?
- **Critical Infrastructure Impact:** Is the industrial accident affecting essential services (e.g., power generation, water treatment) or major transportation corridors?
- **Environmental Damage:** Is there significant environmental contamination requiring large-scale remediation?
- **Economic Impact:** Is the accident causing significant economic disruption due to plant closure or widespread business impact?

### Essential Elements of Information

- **Incident Location:** Specific address and name of the industrial facility.
- **Nature of Accident:** Type of accident (e.g., explosion, fire, structural collapse, chemical release).
- **Injuries/Fatalities:** Number of casualties on-site and in surrounding areas.
- **Material Involved (if applicable):** Any HAZMAT or industrial chemicals involved.
- **Evacuation/Shelter-in-Place Zone:** Defined geographic area for protective actions.
- **Facility Status:** Operational status of the facility (e.g., shut down, ongoing fire).
- **Environmental Impact:** Observations of air, water, or soil contamination.
- **Resource Needs:** Requests for specialized industrial rescue teams, HAZMAT teams, fire suppression assets, or environmental cleanup contractors.

**HAZARD: Microburst****Low Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference(s):**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

Annex C - Hazard &amp; Threat Response, Appendix 3: Hurricanes &amp; Tropical Storms

**Definition:**

**Microbursts** are localized columns of sinking air (downdraft) within a thunderstorm and are usually less than or equal to 2.5 miles in diameter. Microbursts can cause extensive damage at the surface, and in some instances, can be life-threatening. There are two primary types of microbursts: 1) wet microbursts and 2) dry microbursts. Wet microbursts are accompanied by significant precipitation. Updrafts within thunderstorms may be strong enough to suspend large amounts of water droplets and hailstones as a “core” in the upper portions of the thunderstorm. Evaporation from lofted water droplets and hail cools the air (evaporational cooling), causing it to sink and eventually weakening the updraft. As a result, the core plummets to the ground causing very strong straight-line winds to spread out in all directions. The location in which the microburst first hits the ground experiences the highest winds and greatest damage.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- National Weather Service Severe Thunderstorm Warning with specific mention of potential for widespread damaging straight-line winds or multiple microbursts
- Radar imagery indicating strong downburst signatures across a region

- Immediate widespread reports from public or emergency services of highly localized, severe wind damage (e.g., downed trees in concentrated areas, damaged roofs on multiple properties) following a thunderstorm

### Information Sources

- County Emergency Management Agencies
- Maine Department of Public Safety
- Maine State Police
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Localized, severe wind damage to buildings, trees, and infrastructure
- Power outages due to downed utility poles and lines
- Injuries and potential fatalities from falling debris
- Disruption of transportation routes
- Economic losses due to property damage and business disruption
- Rapid onset, limiting warning time for public

### Risk Response Actions (Potential)

- **Warning Dissemination:** National Weather Service issues Severe Thunderstorm Warnings with microburst potential, disseminated by MEMA.
- **Rapid Damage Assessment:** County emergency management agencies and local responders conduct rapid assessments of highly localized, severe wind damage.
- **Power Outage Response:** MEMA coordinates with utilities for localized power restoration.
- **Road Clearance:** Maine Department of Transportation and local public works clear downed trees and debris.
- **Public Safety:** Maine State Police and local law enforcement respond to reports of property damage and ensure public safety.
- **Public Information:** Advise public on severe weather safety and reporting damage.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Widespread Damage:** Is there widespread, highly localized, and severe wind damage (e.g., numerous downed trees, multiple damaged roofs) across multiple communities within a distinct path?
- **Life Safety Threat:** Are there confirmed injuries or fatalities directly attributable to the microburst?
- **Power Outage Impact:** Are significant power outages concentrated within the microburst path, with prolonged restoration?

### Essential Elements of Information

- **Impacted Locations:** Specific towns, neighborhoods, and streets within the microburst path.
- **Damage Type:** Detailed reports of damage (e.g., snapped trees, structural damage, vehicles overturned).
- **Wind Speed Estimation:** National Weather Service estimated peak wind speeds within the damage path.
- **Power Outage Details:** Number of customers affected within the localized damage area and estimated time of restoration.
- **Road Closures:** Specific roads closed due to downed trees/debris within the path.
- **Resource Needs:** Requests for chainsaw crews, heavy equipment for debris removal, or utility repair crews for localized outages.

**HAZARD: Radioactive Release****Low Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Annex E: Radiological Emergency Response

**Definition:**

A **radiological release** is any unplanned or uncontrolled emission, spill, or dispersal of radioactive materials into the environment or within a contained area where it is not intended to be. This includes the release of radioactive gases, liquids, or solid particles that could potentially lead to exposure and contamination of people, property, or the environment.

**Probability:** Unlikely. These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- Notification from federal agencies (e.g., Nuclear Regulatory Commission, Department of Energy, Federal Bureau of Investigation) or state partners (e.g., Maine Department of Environmental Protection, Maine Center for Disease Control and Prevention) of a confirmed or suspected radiological release or dirty bomb threat
- Reports from law enforcement/fire/Emergency Medical Services of a suspicious device or container emitting radiation (e.g., detected by specialized equipment during a response)
- Activation of radiation detectors at critical infrastructure sites or during monitoring events

### Information Sources

- Environmental Protection Agency
- Federal Emergency Management Agency
- Federal Radiological Preparedness Coordinating Committee
- Food and Drug Administration
- Nuclear Regulatory Commission
- United States Department of Agriculture
- Department of Health and Human Services
- County Emergency Management Agencies
- Maine Department of Public Safety
- Maine State Police
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Exposure to radiation, leading to acute and long-term health effects (e.g., cancer)
- Contamination of land, water, and air, requiring extensive cleanup
- Evacuation or sheltering-in-place of large populations for extended periods
- Disruption of critical infrastructure and services
- Long-term psychological trauma and public fear
- Economic devastation due to property devaluation, lost productivity, and cleanup costs
- Impact on agriculture and food supply

### Risk Response Actions (Potential)

- **Immediate Notification:** Federal agencies (Nuclear Regulatory Commission, Department of Energy, Federal Bureau of Investigation) or state partners (Maine Department of Environmental Protection, Maine Center for Disease Control and Prevention) immediately notify MEMA and other relevant state agencies.
- **Radiological Monitoring:** Maine Department of Environmental Protection and Maine Center for Disease Control and Prevention deploy teams for radiological monitoring and assessment of contamination.

- **Public Protective Actions:** MEMA, in coordination with Maine Center for Disease Control and Prevention, determines and implements public protective actions (e.g., shelter-in-place, evacuation, potassium iodide distribution).
- **Law Enforcement/Security:** Maine State Police and other law enforcement agencies secure the scene and investigate the source.
- **Decontamination:** Coordinate decontamination procedures for responders and affected individuals.
- **Medical Management:** Maine Center for Disease Control and Prevention provides guidance on medical management of radiation exposure.
- **Public Information:** Strict control of public information to provide accurate, reassuring, and actionable guidance.
- **Federal Coordination:** Close coordination with NRC, DOE, and Federal Bureau of Investigation for technical expertise and support.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Confirmed Release/Threat:** Is there a confirmed, unplanned radioactive release or a credible dirty bomb threat?
- **Population at Risk:** How many people are potentially within the hazard zone requiring immediate protective actions (shelter-in-place, evacuation, KI distribution)?
- **Radiation Levels:** Are initial radiation readings at levels that pose an immediate health threat?
- **Source Secured:** Has the source of the radiation been contained or secured?

### Essential Elements of Information

- **Incident Location:** Specific address or geographic coordinates of the release/threat.
- **Source Identification:** Type of radioactive material, quantity, and physical form (e.g., liquid, gas, solid).
- **Radiation Levels:** Real-time radiation readings (e.g., rem/hr, mrem/hr) at various distances from the source.

- **Plume/Contamination Area:** Defined hazard zone for protective actions, based on modeling and readings.
- **Evacuation/Shelter-in-Place Status:** Status of protective actions for affected populations.
- **Decontamination Needs:** Number of individuals requiring decontamination.
- **Injuries/Exposure:** Number of suspected or confirmed radiation exposures/injuries.
- **Resource Needs:** Requests for specialized radiological assessment teams, HAZMAT teams with radiation detection, medical countermeasures (KI), or federal technical support (DOE, NRC).

**HAZARD: : Snow Squall****Low Risk**

**Hazard Category:** Natural

**Subordinate Risks:** None

**Plan Reference:**

Annex C - Hazard & Threat Response, Appendix 2: Severe Seasonal Weather (Winter)

**Definition:**

**Snow squalls** are an intense, but limited duration, period of moderate to heavy snowfall, accompanied by strong, gusty surface winds and possibly lightning (generally moderate to heavy snow showers). Snow accumulation may be significant.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- National Weather Service Snow Squall Warning for specific major roadways (e.g., I-95, US-1, US-2) or widespread areas
- Sudden and rapid reduction in visibility observed by Maine Department of Transportation, Maine State Police, or motorists across multiple regions
- Widespread reports of multi-vehicle accidents due to whiteout conditions on major state highways

**Information Sources**

- Maine Department of Public Safety
- Maine Department of Transportation
- Maine State Police
- National Weather Service, Caribou, ME
- National Weather Service, Gray, ME

### Hazard Impacts (Potential)

- Rapid and severe reduction in visibility, leading to multi-vehicle accidents
- Disruption of transportation, especially on highways
- Sudden onset, posing immediate hazards to drivers
- Potential for injuries and fatalities from vehicle collisions
- Strain on emergency response due to multiple incidents
- Economic impact from transportation delays and property damage

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues Snow Squall Warnings for specific roadways, disseminated by MEMA.
- **Traffic Management:** Maine Department of Transportation and Maine State Police rapidly implement traffic control measures, including reducing speed limits, advising caution, and potentially closing sections of highway.
- **Accident Response:** Maine State Police and local law enforcement/Emergency Medical Services respond to multi-vehicle accidents quickly.
- **Public Information:** Issue immediate alerts to motorists via variable message signs, radio, and mobile alerts.
- **Resource Deployment:** Pre-positioning of tow trucks and emergency responders in high-risk areas.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Major Highway Impact:** Are multiple major state highways (e.g., I-95, US-1) experiencing whiteout conditions leading to widespread multi-vehicle accidents?
- **Life Safety Threat:** Are there confirmed fatalities or mass casualties from severe pileups?
- **Transportation Gridlock:** Is the squall causing significant, widespread gridlock on major arteries across multiple regions?

### Essential Elements of Information

- **Affected Roadways:** Specific sections of interstates or major state routes impacted.
- **Visibility:** Real-time visibility reports (e.g., less than 1/4 mile) from Maine Department of Transportation cameras and Maine State Police.
- **Accident Reports:** Number and severity of multi-vehicle accidents, locations, and any confirmed injuries/fatalities.
- **Traffic Flow:** Current traffic conditions (stopped, severely slowed) on affected roads.
- **Duration/Movement:** Forecasted duration and movement of the snow squall.
- **Responder Access:** Ability of emergency responders to access accident scenes.
- **Resource Needs:** Requests for additional Maine State Police units, Emergency Medical Services, fire/rescue, and tow trucks for accident scenes.

**HAZARD: Structural Collapse****Low Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Structural collapse** refers to the failure of a load-bearing component or the entire structure, causing it to fall down or cave in. This can involve a building, bridge, or other constructed object and may be caused by various factors like design flaws, material failures, or external forces.

**Probability:** Unlikely. These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- Multiple 911 calls from a single incident site reporting a building collapse, partial collapse, or significant structural failure affecting a critical or large structure
- Immediate reports from emergency responders on scene (Fire/Emergency Medical Services/Law Enforcement) confirming collapse and potential entrapments
- Observed widespread signs of imminent collapse (e.g., bulging walls, severe cracking, creaking sounds) in structurally unsound buildings across a community following an event (e.g., earthquake, major fire)

**Information Sources**

- County Emergency Management Agencies
- Maine Office of State Fire Marshal
- Maine State Police
- Maine Department of Public Safety

### Hazard Impacts (Potential)

- Mass casualties and injuries
- Entrapment of individuals, requiring complex rescue operations
- Significant property damage and loss
- Disruption of critical services or operations if the structure is essential
- Public fear and safety concerns regarding other structures
- Economic impact from loss of use, demolition, and rebuilding
- Investigation into causes and potential legal ramifications

### Risk Response Actions (Potential)

- **Unified Command:** Maine Fire Marshal's Office, Maine State Police, and local fire/Emergency Medical Services/law enforcement establish Unified Command.
- **Urban Search and Rescue:** Deployment of state and local urban search and rescue teams for victim location and rescue.
- **Medical Response:** Maine Emergency Medical Services coordinates mass casualty medical response.
- **Building Code Enforcement/Engineering Assessment:** State professional licensing boards (for engineers/architects) and local code enforcement provide expert assessment of structural integrity.
- **Security:** Maine State Police and local law enforcement secure the scene and surrounding area.
- **Victim Identification and Support:** Protocols for victim identification and support services.
- **Investigation:** Maine Fire Marshal's Office leads investigations into the cause.
- **Public Information:** Provide updates on rescue efforts and safety advisories for nearby structures.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Building Type/Occupancy:** Is the collapsed structure a critical facility (e.g., hospital, school, government building) or a highly populated occupancy (e.g., apartment building, shopping mall)?
- **Casualty Estimates:** Preliminary estimates of trapped individuals, injuries, and fatalities.
- **Threat to Adjacent Structures:** Is the collapse posing an imminent threat to adjacent buildings?
- **Cause:** Is the collapse due to natural disaster, accident, or intentional act?

### Essential Elements of Information

- **Incident Location:** Specific address and type of structure.
- **Collapse Extent:** Partial or full collapse, and floors/sections affected.
- **Estimated Trapped:** Number of individuals believed to be trapped within the debris.
- **Urban Search and Rescue Operations:** Status of urban search and rescue operations (e.g., search methods, voids located).
- **Utility Status:** Status of utilities (gas, electric, water) to the structure and surrounding area.
- **Secondary Hazards:** Any active fires, gas leaks, or other hazards present.
- **Engineering Assessment:** Initial assessment of structural stability of remaining portions and adjacent buildings.
- **Resource Needs:** Requests for additional urban search and rescue teams, heavy equipment, structural engineers, or specialized medical personnel.

**HAZARD: Terrorist Attack****Low Risk**

**Hazard Category:** Human-Caused

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

**Terrorist attacks** are any activity that involves an act that is dangerous to human life or potentially destructive of critical infrastructure and is a violation of the criminal laws of the United States or of any state or other subdivision of the United States; and appears to be intended to intimidate or coerce a civilian population, or to influence the policy of a government by intimidation or coercion, or to affect the conduct of a government by mass destruction, assassination, or kidnapping.

**Probability:** Unlikely. These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- Intelligence bulletins from federal (Federal Bureau of Investigation, Department of Homeland Security) or state (Maine State Police, Maine Information and Analysis Center) law enforcement regarding specific, credible threats to targets within Maine
- 911 calls or direct reports to law enforcement of explosions, active violence (e.g., multiple coordinated attacks), or unusual chemical/biological releases
- Immediate reports from law enforcement on scene confirming a suspected terrorist act (e.g., use of IEDs, specific target selection, political motivation)
- Notifications from federal partners of a national-level threat that includes Maine

### Information Sources

- Department of Homeland Security
- Federal Bureau of Investigation
- Maine Department of Public Safety
- Maine Information & Analysis Center
- Maine State Police

### Hazard Impacts (Potential)

- Mass casualties and injuries
- Significant psychological trauma and widespread fear
- Damage to critical infrastructure and iconic landmarks
- Disruption of transportation, communication, and financial systems
- Economic downturn due to reduced tourism, business closures, and increased security costs
- Overwhelm of emergency services and healthcare system
- Long-term social and political consequences

### Risk Response Actions (Potential)

- **Unified Command/Joint Operations Center:** Federal Bureau of Investigation and Maine State Police establish a Joint Operations Center, with MEMA coordinating state-level support.
- **Law Enforcement Response:** Immediate deployment of all available state and local law enforcement resources to neutralize the threat.
- **Emergency Medical Response:** Maine Emergency Medical Services coordinates mass casualty medical response.
- **Threat Intelligence:** Maine Information and Analysis Center disseminates critical intelligence to all responders and agencies.
- **Border Security:** Increased vigilance and security at state borders (if applicable).
- **Public Safety Measures:** Implementation of enhanced security at critical infrastructure and public venues.
- **Investigation:** Federal Bureau of Investigation leads the criminal investigation, with support from Maine State Police.

- **Public Information:** Controlled and coordinated public information to provide accurate instructions, counter misinformation, and maintain public confidence.
- **Federal Coordination:** Close coordination with Department of Homeland Security, Federal Bureau of Investigation, and other federal agencies for resources and intelligence.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Threat Neutralized:** Is the immediate threat (e.g., active shooter, explosive device) confirmed to be neutralized, or is it ongoing?
- **Type of Attack:** Confirmed nature of the attack (e.g., bombing, active violence).
- **Casualty Count:** Preliminary count of fatalities and critically injured.
- **Motivation/Perpetrators:** Any initial intelligence on the ideology, group, or individuals responsible.
- **Broader Threat Assessment:** Is there intelligence indicating additional planned attacks or a broader national threat?
- **Assailant Status:** Confirmed neutralized, contained, or at large.

### Essential Elements of Information

- **Incident Location:** Specific address or geographic coordinates of the attack.
- **Attack Modality:** Details of weapon used (firearm, explosive, chemical agent).
- **Scene Security Status:** Confirmation of perimeter, active threat areas/safe zones.
- **Law Enforcement Tactics:** Current tactical operations.
- **Federal Bureau of Investigation Lead:** Confirmation of Federal Bureau of Investigation lead on criminal investigation.
- **Intelligence Indicators:** Any specific intelligence leads or suspicious activity reports.
- **Resource Needs:** Requests for specialized tactical teams, HAZMAT teams, bomb disposal units, forensic investigators, or victim support resources.

**HAZARD: Tornado****Low Risk****Hazard Category:** Natural**Subordinate Risks:** None**Plan Reference(s):**

Annex C - Hazard &amp; Threat Response, Appendix 1: Severe Seasonal Weather (Summer)

Annex C - Hazard &amp; Threat Response, Appendix 3: Hurricanes &amp; Tropical Storms

**Definition:**

**Tornadoes** are violently rotating columns of air touching the ground, usually generated by especially severe thunderstorms. Tornadoes are nature's most violent storms, develop extremely rapidly, and may dissipate just as quickly. Most tornadoes are on the ground for less than 15 minutes. Spawned by powerful thunderstorms, tornadoes can cause fatalities and devastate a neighborhood in seconds. Winds of a tornado may reach 300 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long. Strong downburst (straight-line) winds may also occur due to the same thunderstorm, but these are independent of tornado winds. Hail is very commonly found very close to tornadoes, as the strongest thunderstorms that spawn tornadoes are formed under the atmospheric conditions that are also highly likely to make hail. For all their destructive fury, tornadoes are relatively small when compared to some other extreme weather events.

**Probability:** Possible. This event presents a minimal threat to the state over the next few years. Specific factors suggest a potential occurrence, but overall chances remain low.

**Impact:** Negligible. An event causes a noticeable operational effect, a sensitive internal data breach, minor property damage, or slight non-essential disruptions. Standard operations continue. News coverage generates short term local media attention.

**Trigger Events/Warning Signs**

- National Weather Service Tornado Warning for one or more counties in Maine
- National Weather Service radar showing a confirmed tornado or strong rotation (hook echo) impacting populated areas

- Observed funnel cloud or tornado by trained spotters or public across multiple locations
- Widespread reports from public or emergency services of severe, localized rotational wind damage (e.g., distinct path of destruction, debris lofted) in multiple communities

### Information Sources

- County Emergency Management Agencies
- Maine Department of Public Safety
- National Weather Service, Caribou
- National Weather Service, Gray, ME
- National Weather Service Storm Spotter Network

### Hazard Impacts (Potential)

- Catastrophic destruction of buildings and infrastructure within the path
- Mass casualties and injuries
- Disruption of utilities (e.g., power, gas, water)
- Displacement of resident populations/Sheltering
- Debris fields impacting transportation and recovery efforts
- Long-term economic devastation to affected communities
- Psychological trauma for survivors

### Risk Response Actions (Potential)

- **Issuance of Warnings:** National Weather Service issues Tornado Warnings, and MEMA disseminates them via the Maine Alert System.
- **Damage Assessment:** MEMA and county emergency management agencies conduct rapid damage assessments to confirm tornado path and severity.
- **Search and Rescue:** State and local search and rescue teams respond to areas of significant damage.
- **Power Restoration:** MEMA coordinates with utilities for power restoration.
- **Sheltering and Mass Care:** MEMA and county emergency management agencies activate shelters for displaced residents.

- **Public Safety:** Maine State Police and local law enforcement secure damaged areas and provide assistance.
- **Public Information:** Provide information on safety during tornadoes, shelter locations, and recovery resources.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Confirmed Tornado:** Is a confirmed tornado (not just funnel cloud) causing significant damage across multiple communities?
- **Life Safety Threat:** Are there confirmed fatalities, mass casualties, or widespread entrapments due to severe rotational wind damage?
- **Path of Destruction:** Is there a clear, continuous path of severe damage impacting populated areas or critical infrastructure?
- **Resource Strain:** Are local search and rescue, Emergency Medical Services, and utility resources overwhelmed, requiring significant state support?

### Essential Elements of Information

- **Tornado Path/Length:** Estimated path length, width, and specific communities impacted.
- **EF-Scale Rating:** Preliminary estimated EF-scale rating of the tornado damage.
- **Damage Reports:** Detailed reports of structural damage (e.g., houses leveled, vehicles thrown), downed trees, and power lines.
- **Injuries/Fatalities:** Number of confirmed injuries and fatalities.
- **Search and Rescue Status:** Locations where search and rescue operations are active.
- **Power Outage Details:** Number of customers affected within the tornado path and estimated time of restoration.
- **Road Closures:** Specific roads closed due to debris.
- **Resource Needs:** Requests for urban search and rescue teams, chainsaw crews, heavy equipment for debris removal, or aerial assessment teams.

**HAZARD: Urban Fire****Low Risk**

**Hazard Category:** Technological Hazard

**Subordinate Risks:** None

**Plan Reference:**

Emergency Operations Plan – Base Plan

**Definition:**

An **Urban (Building) Fire** is any uncontrolled and unwanted combustion occurring within a structure located in an urban or densely populated area. This includes fires in residential buildings (e.g., houses, apartments), commercial buildings (e.g., offices, retail spaces, warehouses), industrial facilities, public buildings (e.g., schools, hospitals), and other structures found within a city or town.

**Probability:** Unlikely. These hazards are not expected to impact the state in the next few years. The event occurs in other regions, but current data provides limited reason to anticipate an occurrence in Maine.

**Impact:** Moderate. An event causes a significant operational impact, a sensitive data breach affecting operations, or notable property damage causing minor daily disruptions. News coverage generates potential national concern, reputational damage, and external scrutiny.

**Trigger Events/Warning Signs**

- Multiple 911 calls reporting visible flames or heavy smoke from a significant structure or multiple structures within a populated urban area
- Automatic fire alarm activation at multiple commercial, multi-residential, or municipal buildings
- Initial reports from local fire departments on arrival indicating a significant working structure fire with potential to spread to multiple structures or impact critical infrastructure
- Requests for mutual aid from multiple fire departments

### Information Sources

- County Emergency Management Agencies
- Local Fire Departments
- Maine Department of Public Safety
- Maine Office of State Fire Marshal

### Hazard Impacts (Potential)

- Widespread property destruction and loss
- Injuries and fatalities to residents and firefighters
- Displacement of residents/Sheltering
- Disruption of utilities (e.g., power, gas lines leading to explosions)
- Smoke and air quality issues impacting surrounding areas
- Economic losses from business closures and property damage
- Strain on fire and emergency medical services
- Potential for secondary structural collapse

### Risk Response Actions (Potential)

- **State Fire Mobilization Plan:** Maine Fire Marshal's Office activates state-level fire mobilization plan to provide mutual aid to local fire departments.
- **Incident Command:** Local fire departments establish Incident Command, with support from the Maine Fire Marshal's Office.
- **Resource Deployment:** Deployment of specialized state fire resources (e.g., HAZMAT teams, investigation units) as needed.
- **Evacuation/Shelter-in-Place:** Local authorities, with MEMA support, implement evacuation or shelter-in-place orders for affected areas.
- **Traffic Management:** Maine Department of Transportation and Maine State Police assist with traffic control and road closures around the incident.
- **Medical Support:** Maine Emergency Medical Services provides medical support for firefighters and potential casualties.
- **Investigation:** Maine Fire Marshal's Office conducts an investigation into the cause.

- **Public Information:** Coordinate public information on safety, road closures, and displacement.
- **State Emergency Operations Center Activation:** MEMA reviews protocols and determines activation level.

### Critical Information Requirements

- **Magnitude of Fire:** Is it a multi-alarm fire impacting multiple structures (e.g., multiple residential buildings, large commercial block) within a densely populated urban area?
- **Life Safety Threat:** Are there confirmed fatalities, mass casualties, or widespread displacement due to the fire?
- **Critical Infrastructure Threat:** Is the fire threatening essential services (e.g., power substation, water treatment plant) or major transportation corridors?
- **Resource Overwhelmed:** Are local fire departments overwhelmed, requiring significant mutual aid from across the state?

### Essential Elements of Information

- **Incident Location:** Specific address or block of the urban fire.
- **Structures Involved:** Number of structures on fire, threatened, and damaged/destroyed.
- **Fire Status:** Current fire behavior (e.g., contained, spreading, under control).
- **Evacuation Status:** Number of residents evacuated from affected buildings/areas, and shelter locations.
- **Injuries/Fatalities:** Number of civilian and firefighter injuries or fatalities.
- **Utilities Impacted:** Any power, gas, or water service disruptions in the area.
- **Mutual Aid Status:** Number of mutual aid companies responding and their roles.
- **Hazardous Materials:** Any known hazardous materials within the structures involved.
- **Resource Needs:** Requests for additional ladder trucks, engines, specialized apparatus, water supply, or incident management team support.

## Section 4: Administration & Resources

### Data Management

The MEMA Preparedness and Homeland Security Division maintains all records, survey data, and workshop notes related to this assessment. Staff store these records on secure state servers to ensure data integrity and restrict access to sensitive vulnerability information. Maintained records include geospatial mapping files, meeting minutes from the Hazard and Threat Working Group, historical meteorological datasets, and public feedback submissions. This centralized data repository establishes a historical baseline for future assessments and ensures continuity of operations during staff transitions.

### Resource Allocation

State and county agencies use this risk assessment to guide resource requests, prioritize mitigation projects, and justify funding. Agencies align grant applications, such as the Building Resilient Infrastructure and Communities (BRIC) program and the Hazard Mitigation Grant Program (HMGP), with the high priority risks identified in this document. By tying funding requests to documented threats, the state maximizes the impact of federal assistance. EMA uses the hazard tiers to prioritize grant reviews, ensuring resources flow to communities facing the most severe probabilities and impacts.

### Annex Maintenance

The MEMA Preparedness and Homeland Security Division planning team reviews and updates this annex every year to ensure operational relevance. The team incorporates new historical data, changes in climate projections, and input from county emergency management agencies. Planners integrate sea level rise models, changing precipitation patterns, and forest fire fuel loads into the annual analysis. Furthermore, the team conducts out-of-cycle reviews following major disaster declarations or the completion of after-action reports. This process guarantees that the Emergency Operations Plan reflects the current threat landscape and captures lessons learned from real world incidents.

## Section 5: Coordinating Instructions & Communications

### Information Dissemination

MEMA publishes the approved Hazard and Threat Risk Assessment on the official agency website for public access. Emergency managers and state partners access the dynamic Risk Register through the secure external SharePoint site and the shared agency drive (G-Drive). MEMA restricts access to certain tactical response details and critical infrastructure vulnerabilities to authorized personnel. During steady state operations, planners use these platforms to coordinate mitigation strategies. During an active crisis, WebEOC provides incident commanders with access to hazard profiles and potential cascading impacts.

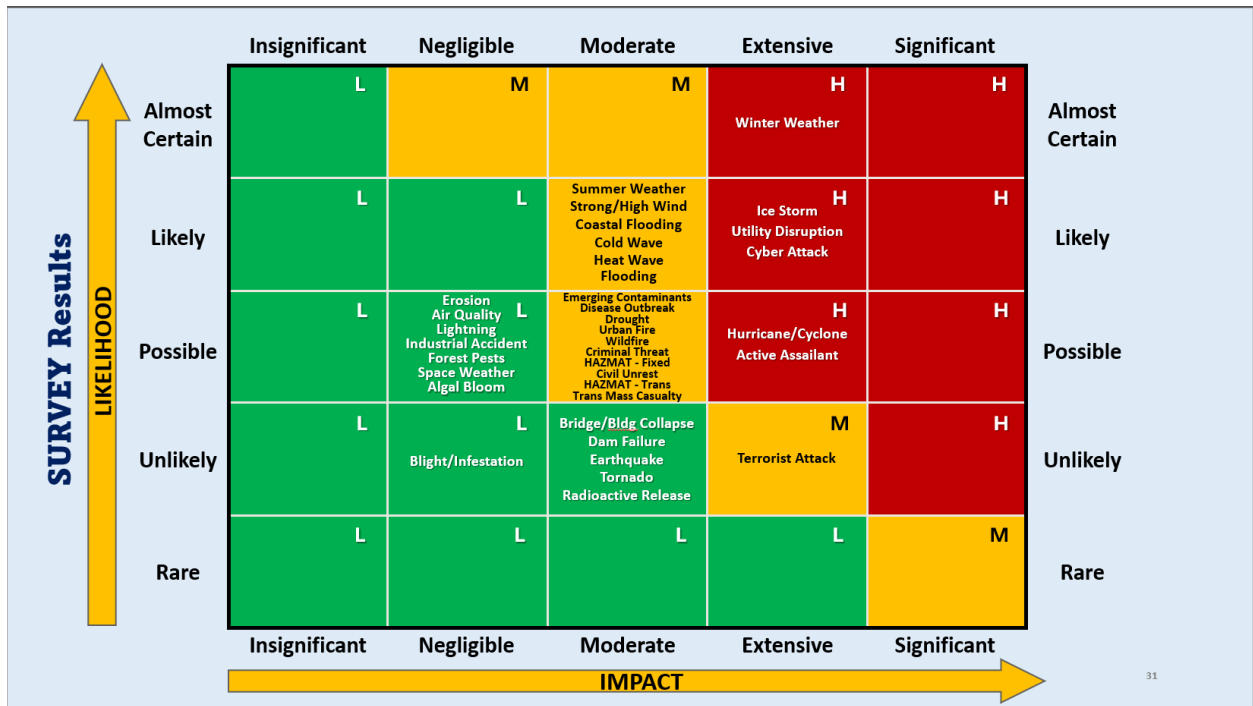
### Local Coordination

County emergency management agencies use this state level assessment to inform their local Threat and Hazard Identification and Risk Assessment processes. Counties submit their local updates to MEMA by the end of the third quarter each calendar year. This bottom-up reporting structure allows the state to identify regional trends and localized resource gaps. MEMA provides technical assistance to county directors during this process, facilitating regional workshops and sharing data modeling tools. This collaborative approach ensures synchronization between local tactical plans and overarching state strategies..

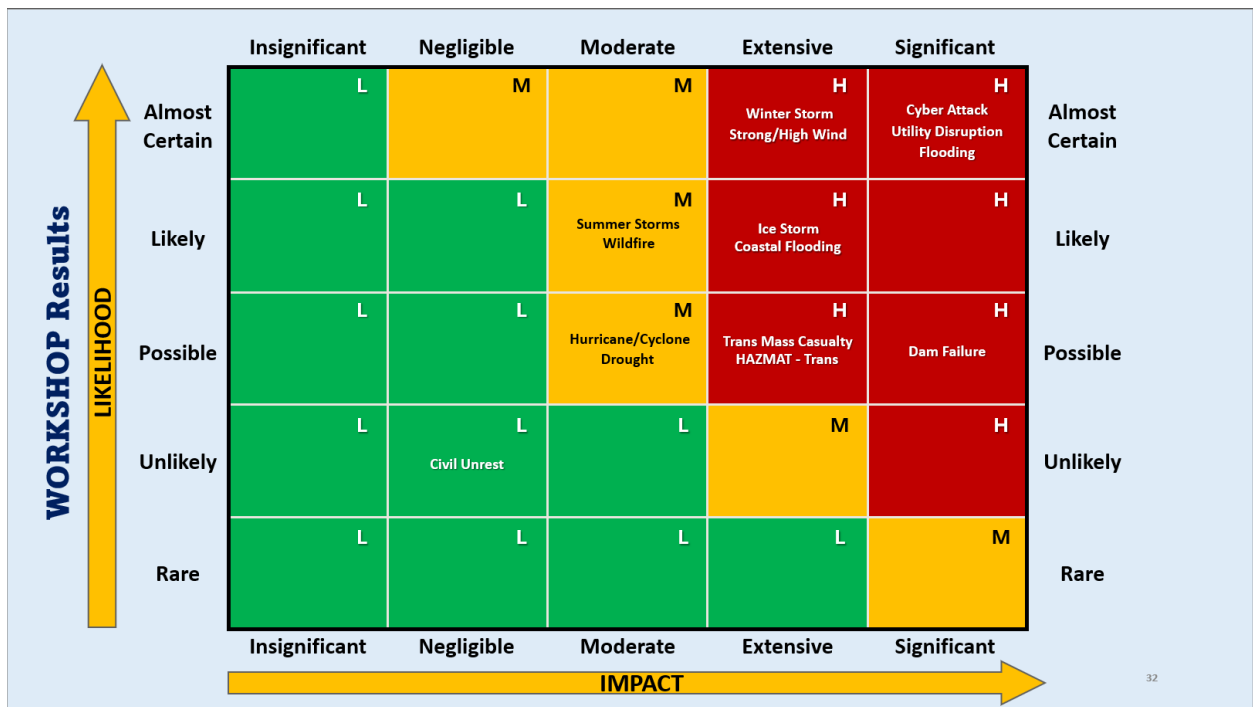
### Points of Contact

The MEMA State Hazard Mitigation Officer and the Homeland Security Division's Senior Planner serve as the primary points of contact for questions regarding this assessment, data requests, and hazard mitigation planning. These staff members coordinate requests for technical assistance, interpret risk data for municipal partners, and serve as the liaison to Federal Emergency Management Agency Region 1 representatives.

# Appendix A: 2025 Hazard & Threats Analysis Results



Hazard and Threats **SURVEY** Results 07 May 2025.



Hazard and Threats **WORKSHOP** Refinement Results 19 May 2025.

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## LIKELIHOOD TERMINOLOGY DEFINITIONS

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**Almost Certain:** This event is very likely to impact my organization within the next year. I expect it to occur based on what has happened before, what's happening now in Maine, or clear signs that it's coming soon.

**Likely:** This event will probably impact my organization within the next year, but it's not a sure thing. I think it will occur based on past experiences in Maine or current situations that point to it happening in the near future.

**Possible:** This event might impact my organization sometime in the next few years, but it's not expected. There's some reason to think it could occur, but overall, the chances are low.

**Unlikely:** This event is not expected to impact my organization in the next few years, though it's not impossible. It might have happened elsewhere, but there's little or no reason to believe it will happen here in Maine in the near future.

**Rare:** This event is very unlikely and would only impact my organization if something very unusual or unexpected occurs. There's almost no (or no) history of this kind of event happening here in Maine.

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## IMPACT TERMINOLOGY DEFINITIONS

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**Insignificant:** Minimal operational impact; non-sensitive data breach; minor, localized property damage; normal operations continue; news coverage is limited to local outlets.

**Negligible:** Small but noticeable operational effect; sensitive internal data breach; minor property damage, slight non-essential disruptions; mostly normal operations; news coverage generates short-term local media attention.

**Moderate:** Significant operational impact; sensitive data breach affecting operations; notable property damage causing minor daily disruptions; significantly impacted operations; news coverage generates potential national concern, reputational damage, and external scrutiny.

**Extensive:** Widespread and severe operational impact; highly sensitive data breach severely undermining core interests; extensive property damage causing major operational disruptions; severely impaired organizational function; news coverage generates intense national scrutiny, potential operational restrictions.

**Significant:** Considerable ongoing operational impact; highly sensitive data breach severely impacting core functions; catastrophic property damage causing fundamental operational breakdown; critical systematic failures halting core activities; news coverage initiates federal involvement, creates sustained negative media with potential severe operational limitations.

## Appendix B: 2025 Hazard & Threat Risk Register

The Risk Register is a dynamic MS Excel based tool used to systematically identify, assess, and prioritize potential hazards and their associated impacts. It goes beyond a simple list of threats by creating a structured framework for understanding the probability and potential impact of each hazard or threat. For each event the register details specific risks, categorizes them (e.g., natural, technological, human-caused), outlines potential impacts (e.g., casualties, infrastructure damage, economic disruption), trigger events for activation, and assigns responsible organizations response actions.

It is important to note that the register is not meant to be a static document. Combined with other data and subject matter expertise, it can be an important operational tool. By assigning responsible organizations and outlining pre-scripted response actions for each risk, it helps agencies to proactively plan and prepare. It serves as a centralized reference for emergency managers and stakeholders, ensuring a shared understanding of threats and a coordinated approach to mitigation and response.

The register, due to its format and the need to be easily referenced and updated, is accessible online. This digital accessibility ensures that all stakeholders, from state agencies to local partners, can access the most current threat and hazard information to support preparedness and response efforts. The Risk Register can be accessed at:

<https://www.maine.gov/mema/sites/maine.gov.mema/files/inline-files/Risk%20Register%2020250811.xlsx>

## Appendix C: 2025 Hazard & Threat Questions

The Hazard and Threat Analysis incorporated specific surveys and workshops where planners asked participants detailed questions to extract, analyze, and refine baseline data. The questions asked are provided for reference.

### LIST OF QUESTIONS FOR PARTICIPANTS:

#### General Opening Questions:

- From your perspective and experience, what are the key areas of concern regarding potential hazards and threats within the State of Maine?
- Are there any past incidents or near misses that we should be aware of?
- What are some of the things that keep you up at night when you think about potential risks?

#### H&T Identification Questions:

- What natural events could potentially impact us? How?
- What technological failures or malfunctions (e.g., equipment breakdown, system outages) could occur? What would be the consequences?
- Are there any biological hazards (e.g., infectious diseases, pests) we should consider?
- What chemical or material hazards exist in our environment or processes? What are the potential risks?
- What infrastructure vulnerabilities (e.g., power, transportation) could create hazards?
- Are there any specific processes or activities that you believe carry a higher inherent risk of hazard?
- What types of intentional malicious acts (e.g., cyberattacks, vandalism, theft) could target us? What would their goals be?
- What types of information security threats (e.g., data breaches, phishing) are relevant?
- Are there any supply chain vulnerabilities that could be exploited as a threat?
- What are the potential reputational threats that could arise from security incidents?
- Are there any emerging threats that we should be aware of?

**Likelihood and Impact Assessment Questions (for each identified hazard/threat):**

- How likely do you think this H&T is to occur in the next [Use Likelihood Definitions]? Why?
- What factors could increase or decrease the likelihood of this event?
- If this hazard/threat were to materialize, what would be the potential impact on:
  - People (injuries, fatalities)?
  - Property and assets (damage, loss)?
  - Operations and business continuity (disruption, downtime)?
  - Environment?
  - Reputation (Governor/Political)?
- How quickly could we (State) recover from such an event?

**General Discussion and Next Steps Questions:**

- What are the potential mitigation strategies we should begin to think about for the high-priority risks?