




Town of Windham

Fire - Rescue Department

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MEMORANDUM

To : Barry Tibbetts, Town Manager
From : Brent Libby, Fire-Rescue Chief 
Date : February 19, 2025
Re : Cumberland County THIRA Report
Cc : Bob Burns, Assistant Town Manager

This discussion item is an opportunity to brief and share with the Town Council the completed Cumberland County Threat and Hazard Identification and Risk Assessment.

Over the summer County Emergency Management personnel met with each community in the county to review a matrix of potential hazards, the likelihood that those hazards would affect our communities and the resulting impact on our communities. They were then able to culminate that into one county assessment document.

Here in Windham, we met with them on June 10th with key staff from Public Works, Planning, Code Enforcement, Environmental Sustainability, Engineering, Police, Fire-Rescue, IT and Public Information. We reviewed the key hazards presented to us, discussed and ranked the impact on Windham. Our highest rankings similarly match the county. Our top five hazards based on likelihood and impact to the community are:

1. Winter Storm
 - a. Nor'easter
 - b. Ice Storm
2. Summer Weather
 - a. Windstorm
3. Flash Flooding
4. Transportation Failure / Mass Casualty Roadway incident
5. Cyber Incident

The ratings for the county as a whole are attached among the executive summary to the document. Please reach out if you have questions on any of the specific hazards or impact please reach out.

This information will be used to help direct planning, training, mitigation/preparedness and exercises over the next several years.

2 Executive Summary

The Threat and Hazard Identification and Risk Assessment (THIRA) helps communities understand the impacts associated with their most likely threats and hazards. This understanding is expected to guide future assessments regarding which capabilities they should invest in to effectively mitigate, prepare for, respond to, and recover from their unique hazards. The THIRA helps communities understand their risks by answering three questions:



- What threats and hazards can affect our community?
- If they occurred, how would they impact our community?
- Based on those impacts, what capabilities should our community have?

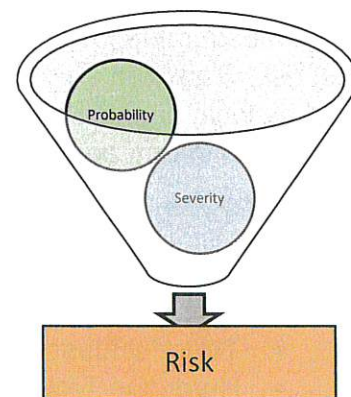
The operational approach for this THIRA update focused on gaining broad perspectives on the threats and hazards that face the County, and incorporated 21 municipal workshops during the data-gathering phase. These workshops sought interaction across diverse perspectives at the municipal level that focused on identifying the critical characteristics of each community. They then considered the most significant impacts on each community's population, core identity and values, and key economic considerations.



Hazards fall into three categories:

- Natural hazards are potential incidents resulting from acts of nature.
- Technological Hazards are potential incidents resulting from accidents or failures in manmade systems or structures.
- Adversarial hazards are potential incidents resulting from the intentional actions of a malign actor.

This update uses the risk model that “Risk = Probability X Severity”. In this model, Probability assessments are based on the expected annual likelihood of a specific event scenario occurring in a given year, ranging from less than a 1% chance to events that are expected to occur most years. Severity is based on impacts to community lifelines, defined as eight key elements of society that enable the continuous operation of government and business functions; they are essential to human health and safety, and to economic security.



The following table lists the threats and hazards affecting Cumberland County in order of descending risk priority:

Hazards	Probability	Severity	Risk
Winter Storm - Nor'easter	4.8	3.2	15.4
Winter Storm - Ice Storm	3.1	3.7	11.2
Winter Storm - Blizzard	3.6	2.9	10.4
Flash Flooding (stormwater)	4.3	2.4	10.0
Coastal Flooding	3.4	2.9	9.7
Summer Weather - Windstorm	4.0	2.4	9.6
Terrorist/Mass Violence	2.0	4.7	8.6
Infectious Disease Outbreak	2.0	4.1	8.3
Hurricane/Tropical Storm	1.7	4.3	7.4
HAZMAT Release-Transportation	2.2	3.2	7.0
Rural Wildfire	2.0	3.5	6.9
Cyber Incident	2.0	3.5	6.8
Transportation (Mass Casualty) Incident	2.0	3.2	6.4
Harmful Algal Blooms	2.6	2.2	5.8
Drought	2.6	2.1	5.6
Urban Multi-Structure Fire	1.8	3.0	5.4
Tornadoes	1.3	3.9	5.2
Riverine Flooding	2.0	2.3	4.6
HAZMAT Release - Fixed Site	1.5	3.1	4.6
Earthquake	1.0	4.1	4.1
Dam Failure	1.1	3.5	3.8
Bridge/Building Collapse	1.1	3.5	3.8
Space Weather	1.6	2.0	3.2
Landslide	1.0	3.1	3.1
Radiological Incident	1.0	2.5	2.5

These numeric risk values are not objective measurements. They do not represent measurable losses over time, or measure which communities are at the greatest risk. They are an order of magnitude associated with likely hazards, which is informed by local perspectives. This approach estimates the relative importance of each hazard to inform applying finite time and resources.

The planning scenarios for the following risks represent the most severe expected impacts to the region. Emergency planning should address the likely impacts of these hazards on community lifelines, regardless their low annual probability.

- Terrorist/Mass Violence
- Hurricane/Tropical Storm
- Infectious Disease Outbreak
- Earthquake

3 Introduction

The Threat and Hazard Identification and Risk Assessment (THIRA) is a powerful tool that empowers communities to understand the impacts associated with their most likely threats and hazards. Together with the Stakeholder Preparedness Review (SPR), it assists in identifying risks with the most potential to expose vulnerabilities and challenge capabilities. It guides communities in assessing which capabilities they should invest in to effectively mitigate, prepare for, respond to, and recover from their hazards, putting them in control of their safety and resilience.

The THIRA is a three-step risk assessment process that helps communities understand their risks and what they need to do to address those risks by answering the following questions:

- What threats and hazards can affect our community?
- If they occurred, how would those threats and hazards impact our community?
- Based on those impacts, what capabilities should our community have?

The outputs from this process lay the foundation for determining a community's risks, vulnerabilities, and capability gaps to feed the Hazard Mitigation Plan, Emergency Operations Plan (EOP), Integrated Preparedness Plan (IPP), and priorities for resourcing and grant applications. If the THIRA process incompletely reflects town, city, and county-level perspectives, these various plans may be preparing for the wrong hazards.

CCEMA updated the County THIRA in 2024 using an organizational tool adopted from the Maine Emergency Management Agency (MEMA). The Capability and Risk Assessment Tool (CaRAT) is an Excel document that captures hazard profiles, community lifeline impacts by hazard, core capabilities affecting each impact, and capability assessments.

The operational approach for this THIRA update focused on gaining broad perspectives on the threats and hazards that face the County. The 2024 THIRA reached 21 towns and cities during the data-gathering phase. The 2024 process presented core capability assessments, and future iterations will seek to expand on increasingly detailed assessments of coordination and communication capabilities and regional resource availability.

CCEMA staff customized the tool and prepared products from January 1 through March 14, conducted municipal workshops from March 14 through July 31, and subsequently completed an internal County-level risk assessment.