

New Hampshire THIRA/SPR Webinar Series

Part 3: THIRA Step 2 – Give the Threats and Hazards Context



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Resources

- U.S. Department of Homeland Security
- Federal Emergency Management Agency
- National Preparedness Directorate
- National Training and Education Division
- Texas A&M Engineering Extension Service (TEEX)
- National Emergency Response and Recovery Training Center (NERRTC)
- New Hampshire Homeland Security and Emergency Management
- Comprehensive Preparedness Guide, 3rd Ed. (May 2018)



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Target Audience

- Law Enforcement
- Fire Service
- Hazardous Materials (HazMat) Responders
- Emergency Medical Services
- Emergency Management
- Public Works
- Health Care
- Public Health
- Governmental Administration
- Public Safety Communications
- Public Elected Officials
- Private Sector and Non-Government Offices*
- Military*

*As requested by host agency



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Learning Objectives

- Discuss factors to consider for threats and hazard descriptions
- Discuss how to develop effective context descriptions
- Develop context descriptions for community threats and hazards
- Estimate impacts of the threats and hazards



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THIRA Process

- The THIRA is a three-step risk assessment completed every 3 years.



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TEXAS A&M ENGINEERING
TEEX
EXTENSION SERVICE

**HOMELAND SECURITY
EMERGENCY MANAGEMENT**
ENSURING SAFETY. PROTECTING COMMUNITIES.

Step 2 of the THIRA Process



- Develop context statements/scenarios that would challenge the State's core capabilities prior to requesting out-of-state assistance
- Determine the quantitative impacts of those context statements using estimates based on planning for the 1/500 year incident
 - Consider community-wide sources such as
 - Real-world events
 - SME's
 - Exercises
 - Response & Recovery Plans
 - Modeling
 - Tools



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Context Descriptions

- Context Descriptions (or scenarios)
 - Detail a threat or hazard incident determined to most challenge a community's capabilities
- Threats and hazards can have different impacts depending on the time, place, and conditions in which they occur
- Elements of the scenario that are essential to the understanding of the impact of an incident and the capabilities required to manage it should be included
 - Include critical details such as location, magnitude, date/time of the incident, conditions, and generalized impacts on general population and infrastructure systems
 - Use conditions relevant to the location
 - Extend the scale of the incident to the most realistic possibility
 - Provide the circumstances under which the incident would be likely to occur



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Context Description Considerations

- Time
- Place
- Adverse conditions
- Demographics
- Climate
- Built environment
 - Man-made structures within a geographical space that use regularly
- Community infrastructure
 - All the assets and organizations in the public and private sector that are part of normal life and economic activity in the area
 - Include not just critical infrastructure but also secondary assets that local would rely on in the event the critical assets are affected
 - Roads, bridges, rail, phone lines, power lines, broadcast towers, natural resources, local cultural significance, etc.



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Context Description Essentials

- Threats and hazards have different impacts; Varying threat and hazard conditions will result in different context statements/scenarios
- More than one context description may need to be developed
- Will any indirect factors affect the Critical Infrastructure or population?
- ALWAYS write a statement that will most challenge the capabilities
- Describe in detail the “who, what, when, where, why, and how”
- Be specific in describing ALL elements of event
- Extend the statement/scenario beyond the community’s “comfort zone”
 - Help determine at what point would a community need to request outside assistance (Mutual aid, local to state, state to other state, state to federal)



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Context Description Essentials

- Consider multiple incidents
 - Suggest creating 4-6 Context Descriptions/scenarios in order to adequately and realistically challenge capabilities
- Consider cascading effects
- Factors subject to change:
 - Demographics
 - Climate
 - Built environment

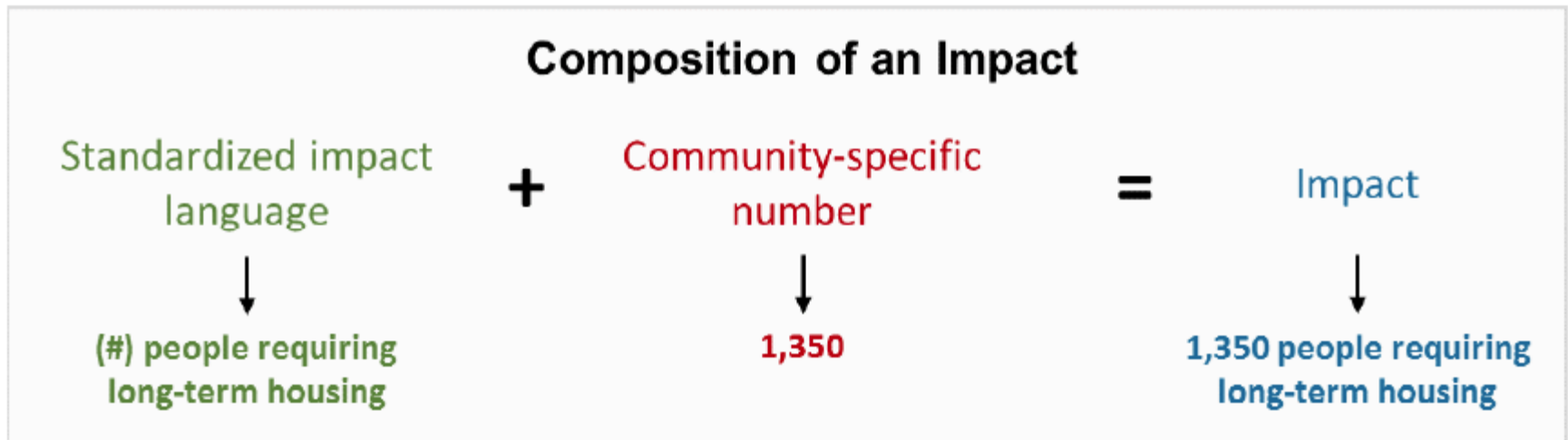


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Estimate Impacts

- Communities write impacts in the language of the common emergency management metrics
- The THIRA process uses standardized impact language
- Impacts are developed by adding community-specific numbers to standardized impact language



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Estimate Impacts

- Engage relevant stakeholders and SMEs with varying perspectives
- May include as many other impacts in the THIRA as deemed necessary
- The impact with the largest number is not necessarily always the most challenging to address



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Estimate Impacts

- Communities use standardized impacts data to create capability targets.

Example Impacts (Partial List)	
Standardized Impact Language	Community-specific Number
Number of fatalities	
Number of structure fires	
Number of hazmat release sites	
Number of people requiring rescue	
Number of jurisdictions affected	12
Miles of road affected	890
Number of customers without power service	11,000
Number of businesses closed due to incident	190
Number of customers without water service	9,800
Number of people requiring medical care	230
Number of exposed people (hazmat related)	24

Example Standardized Target Language

Within (#) days of an incident, clear (#) miles of road affected, to enable emergency responder access.




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Impact Estimation Factors

- Can be expressed in terms of:
 - Size of affected geographical area
 - Complexity
 - Intelligence requirements and needs
 - Casualties
 - Number of displaced households
 - Number of fatalities
 - Number of illness or injuries
 - Disruption of critical infrastructure
 - Loss or degradation of communications
 - Amount of direct economic impacts
 - Economic effects of supply chain disruption



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Estimating Impacts

- Should involve whole community partners
- May be aided by tools or modeling software
 - Standard Unified Modeling, Mapping and Integration Toolkit (SUMMIT)
- Should enlist the help of local experts



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SUMMIT

- Standard Unified Modeling, Mapping and Integration Toolkit
 - DHS Science and Technology Directorate software toolkit to access integrated suites of modeling tools and data sources for planning, exercises, or operational response
 - Currently in use for the THIRA process
 - SUMMIT for Homeland Emergency Response and Planning (SHERPA)
 - Website: <https://dhs.summit.us>

SHERPA *SUMMIT for Homeland Emergency Response and Planning*

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Summary

- Discussed factors to include in context descriptions/scenarios
- Discussed importance of effective context descriptions/scenarios
- Discussed how to estimate impacts of the threats and hazards using the standardize impacts to create the standardized context target statement to be used in Step 3



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