Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR) Guide

Comprehensive Preparedness Guide (CPG) 201

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Homeland Security

Preface

Comprehensive Preparedness Guide (CPG) 201, 3rd Edition, provides guidance for conducting a Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR), formerly State Preparedness Report. The 1st Edition of CPG 201 (April 2012) presented the basic steps of the THIRA process. Specifically, the 1st Edition described a standard process for identifying community-specific threats and hazards and setting targets for each core capability identified in the National Preparedness Goal. The 2nd Edition (August 2013) expanded the THIRA process to include resource estimation, streamlined the number of steps in the process, and provided additional examples of how to develop a THIRA.

CPG 201, 3rd Edition, includes both the THIRA and SPR because they are interconnected processes that, together, communities use to evaluate their preparedness. The 3rd Edition also introduces updates to both methodologies. The THIRA includes standardized language to describe threat and hazard impacts and capability targets. This allows communities to collect more specific, quantitative information while also providing important context. Through the updated SPR process, communities collect more detailed and actionable data on their current capabilities and identified capability gaps. Communities then indicate their intended approaches for addressing those gaps, and assess the impact of relevant funding sources on building and sustaining capabilities.

Where appropriate, the 3rd Edition highlights key changes from previous editions of CPG 201. This 3rd Edition supersedes the 2nd Edition of CPG 201.

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Introduction

The National Preparedness Goal

The *National Preparedness Goal, Second Edition* (2015)[1] defines what it means for all communities to be prepared for the threats and hazards that pose the greatest risk to the security of the United States. The National Preparedness Goal ("the Goal") is:

A secure and resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.

The Goal identifies 32 distinct activities, called **core capabilities**, needed to address the greatest risks facing the Nation (see Figure 1).[2] The Goal organizes these core capabilities into five categories, called **mission areas**.[3] Some core capabilities apply to more than one mission area. For example, the first three core capabilities—Planning, Public Information and Warning, and Operational Coordination—are **cross-cutting capabilities**, meaning they apply to each of the five mission areas.

The National Preparedness Goal describes the five mission areas as follows:

- **Prevention:** Prevent, avoid, or stop an imminent, threatened, or actual act of terrorism.

- **Protection:** Protect our citizens, residents, visitors, and assets against the greatest threats and hazards in a manner that allows our interests, aspirations, and way of life to thrive.

- **Mitigation:** Reduce the loss of life and property by lessening the impact of future disasters.

- **Response:** Respond quickly to save lives; protect property and the environment; and meet basic human needs in the aftermath of an incident.

- **Recovery:** Recover through a focus on the timely restoration, strengthening, and revitalization of infrastructure, housing, and a sustainable economy, as well as the health, social, cultural, historic, and environmental fabric of communities affected by an incident.

The mission areas and core capabilities organize the community-wide activities and tasks performed before, during, and after disasters into a framework for achieving the goal of a secure and resilient Nation.

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[1] For additional information on the National Preparedness Goal, please visit: https://www.fema.gov/national-preparedness-goal.

[2] For additional information on core capabilities, please visit: https://www.fema.gov/core-capabilities.

[3] For additional information on mission areas, please visit: https://www.fema.gov/mission-areas.

The Five Mission Areas				
Prevention	Protection	Mitigation	Response	Recovery
Planning				
Public Information and Warning				
Operational Coordination				
Intelligence and Information Sharing		Community Resilience	Infrastructure Systems	
Interdiction and Disruption		Long-Term Vulnerability Reduction	Critical Transportation	Economic Recovery
Screening, Search, and Detection		Risk and Disaster Resilience	Environmental Response/ Health and Safety	Health and Social Services
Forensics and Attribution	Access Control and Identity Verification	Threats and Hazards Identification	Fatality Management Services	Housing
	Cybersecurity		Fire Management and Suppression	Natural and Cultural Resources
	Physical Protective Measures		Logistics and Supply Chain Management	
	Risk Management for Protection Programs and Activities		Mass Care Services	
	Supply Chain Integrity and Security		Mass Search and Rescue Operations	
			On-Scene Security, Protection, and Law Enforcement	
			Operational Communications	
			Public Health, Healthcare, and Emergency Medical Services	
			Situational Assessment	

The 32 Core Capabilities

Figure 1: Five mission areas organize the 32 core capabilities needed to address threat and hazards of concern.

The National Preparedness System

Communities assess, build, sustain, and deliver the core capabilities through an organized process called the **National Preparedness System**.[4] The National Preparedness System has six components (see Figure 2), each of which ties into the others to guide community-wide preparedness activities and achieve the Goal of a secure and resilient Nation.

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[4] For additional information on the National Preparedness System, please visit: https://www.fema.gov/national-preparedness-system.
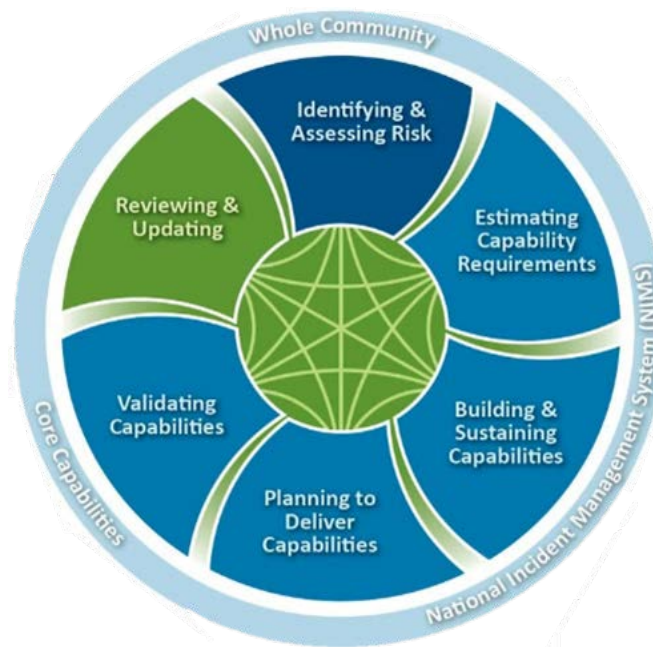
Figure 2: There are six components of the National Preparedness System.

Using the THIRA/SPR Strategically

The THIRA/SPR sets a strategic foundation for putting the National Preparedness System into action. Communities complete the THIRA every three years and use the data from the process to assess their capabilities in the SPR, which is an annual review. It is important that communities complete the THIRA on a multi-year cycle, as it enables them to assess year-over-year trends in changes to their capabilities, while still periodically reviewing the capability targets to keep them relevant.

The three-year THIRA/SPR cycle starts with the first step in the National Preparedness System: *Identifying and Assessing Risk*. **Risk** is the potential for an unwanted outcome resulting from an incident or occurrence, as determined by its likelihood and the associated consequences.[5] In the THIRA, communities identify risks with the potential to most challenge their capabilities and expose areas in which the community is not as capable as it aims to be. These areas, or **capability gaps,** create barriers in a community's ability to prevent, protect against, mitigate, respond to, and recover from a threat or hazard. Understanding the risks they face will make it easier for communities to determine what level of capability they should plan to build and sustain. Communities can use the information that comes from the THIRA/SPR process to answer five key strategic questions about their preparedness risks and capabilities (see Figure 3).

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[5] DHS Risk Lexicon, June 2010: https://www.dhs.gov/sites/default/files/publications/dhs-risk-lexicon-2010_0.pdf.
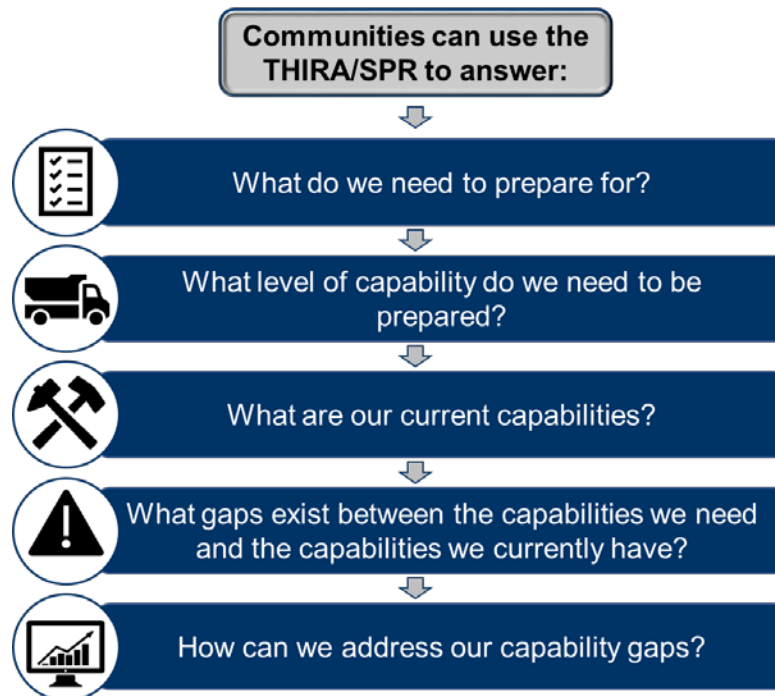
Figure 3: Communities use the THIRA/SPR to answer five key questions.

Since 2012, communities have used the THIRA/SPR to answer these questions, helping them better understand the risks their communities face. This helps communities make important decisions on how to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risks.

In addition to the *Identifying and Assessing Risk* component of the National Preparedness System, communities use the THIRA/SPR for *Estimating Capability Requirements*. This involves determining the specific level of capability that best addresses a community's risks. These community-specific capability levels are what communities use to determine their current level of capability, identify their capability gaps, and identify how they can close those gaps. At the end of the three-year THIRA/SPR cycle, communities reassess their risks by completing the THIRA again and the process restarts. The outputs of the THIRA/SPR provide communities a foundation to prioritize decisions, close gaps in capability, support continuous improvement processes, and drive the other National Preparedness System components (see Figure 4).
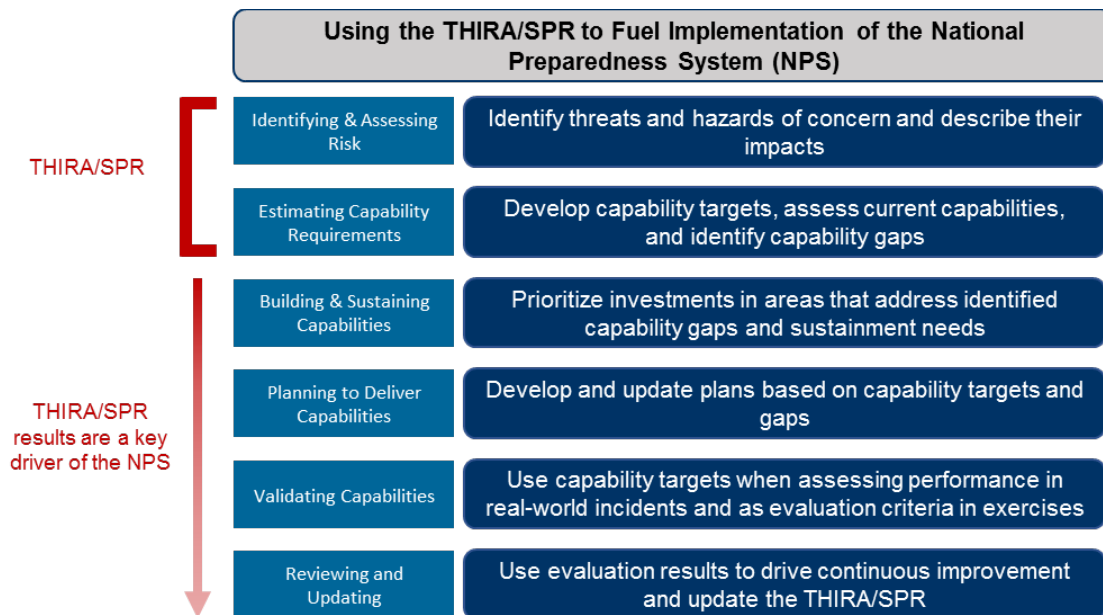
Figure 4: The THIRA/SPR fuels NPS implementation.

Community-Wide Involvement

Recognizing that preparedness is a shared responsibility, the National Preparedness System calls for everyone—not just government agencies—to be involved in preparedness efforts. Community-wide involvement is an important principle in preparedness that entails involving stakeholders throughout preparedness development, and ensuring preparedness materials reflect their roles and responsibilities. Including stakeholders early on and throughout the THIRA/SPR process helps the community to conduct accurate and comprehensive assessments. Furthermore, involving stakeholders throughout the process empowers them to use the data to help drive priorities and investments within their own organizations.

As such, developing a comprehensive and accurate THIRA/SPR requires active community involvement from stakeholders and subject-matter experts (SMEs), such as:

- Colleges/universities, and other research organizations
- Cybersecurity experts
- Emergency management/homeland security agencies
- Emergency Planning Committees
- Federal agencies (e.g. Department of Health and Human Services)
- FEMA regional offices
- Fire, police, emergency medical services, and health departments
- Hazard mitigation offices
- Infrastructure owners and operators
- Major urban area and state fusion centers
- National Laboratories
- National Weather Service offices
- Port or transit organizations
- Supply chain stakeholders
- Private sector partners (including the 16 critical infrastructure sectors)

- Professional associations
- Tribal governments
- U.S. Department of Homeland Security (DHS) Protective Security Advisors
- Volunteer Organizations Active in Disasters (VOAD)
- Other organizations or agencies with significant impact on the local economy

Communities should also include SMEs from planning, exercises, mitigation, training, and other key areas in their THIRA/SPR process. Including the perspectives and expertise of these key stakeholders gives communities critical information regarding planning factors and capability levels across all mission areas. As a result, emergency managers will be well-positioned to provide essential information about the status of

> **Importance of Community-Wide Involvement**
>
> The outputs of the THIRA/SPR process inform all other preparedness activities; helping communities identify challenges, drive priorities, and close gaps in capabilities. Therefore, when developing and updating THIRA/SPRs, communities should ensure their assessment and planning efforts include community-wide input and perspectives.

capabilities and consider THIRA/SPR data in their planning efforts, including the development of strategic, operational, and tactical plans.

The THIRA Process

Introduction to the Three Steps of the THIRA

The THIRA is a three-step risk assessment completed every three years. It helps communities answer the following questions:

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

The THIRA helps communities understand their risks and determine the level of capability they need in order to address those risks. The outputs from this process lay the foundation for determining a community's capability gaps during the SPR process.

This section describes the three-step process for developing a THIRA (see Figure 5):

Figure 5: There are three steps in the THIRA process.

1. **Identify Threats and Hazards of Concern:** Based on a combination of experience, forecasting, subject matter expertise, and other available resources, develop a list of threats and hazards that could affect the community. When deciding what threats and hazards to include in the THIRA, communities consider only those that challenge the community's ability to deliver at least one core capability more than any other threat or hazard; the THIRA is not intended to include less challenging threats and hazards.

2. **Give Threats and Hazards Context:** Describe the threats and hazards identified in Step 1, showing how they may affect the community and create challenges in performing the core capabilities. Identify the impacts a threat or hazard may have on a community.

> **THIRA: Key Changes**
>
> ▪ FEMA now recommends that communities complete the THIRA on a three-year cycle, rather than annually.
>
> ▪ The THIRA is now a three-step assessment; FEMA has removed THIRA Step 4—Apply Results—from the process.

3. **Establish Capability Targets:** Using the impacts described in Step 2, determine the level of capability that the community plans to achieve over time in order to manage the threats and hazards it faces. Using standardized language, create capability targets for each of the core capabilities based on this desired level of capability by identifying impacts, objectives, and timeframe metrics.

Step 1: Identify the Threats and Hazards of Concern

In Step 1 of the THIRA process, communities develop a list of threats and hazards (see Figure 6).

Figure 6: The output of Step 1 of the THIRA is a list of threats and hazards of concern.

Categories of Threats and Hazards

For the purposes of the THIRA, threats and hazards are organized into three categories.

- **Natural hazards**: acts of nature
- **Technological hazards**: accidents or the failures of systems and structures
- **Human-caused incidents**: the intentional actions of an adversary

Table 1 provides example threats and hazards for each of the three categories.

Table 1: Example threats and hazards by category.

Natural	Technological	Human-caused
Avalanche	Dam failure	Active shooter incident
Drought	Hazardous materials release	Armed assault
Earthquake	Industrial accident	Biological attack
Epidemic	Levee failure	Chemical attack
Flood	Mine accident	Cyber-attack against data
Hurricane/Typhoon	Pipeline explosion	Cyber-attack against infrastructure
Space weather	Radiological release	Explosives attack
Tornado	Train derailment	Improvised nuclear attack
Tsunami	Transportation accident	Nuclear terrorism attack
Volcanic eruption	Urban conflagration	Radiological attack
Winter storm	Utility disruption	

Communities consider two criteria when identifying threats and hazards for the assessment: (1) the threat or hazard is reasonably likely to affect the community; and (2) the impact of the threat or hazard challenges at least one of the 32 core capabilities more than any other threat or hazard. As a single incident may most challenge the ability to perform multiple core capabilities, the number of threats and hazards that each community includes will depend on the specific risk profile of the community.

> **The Most Challenging Threat or Hazard**
>
> For the purposes of this Guide, if a threat or hazard "most challenges" a core capability, it means that the community would struggle to deliver the core capability during that specific incident more so than for any other threat or hazard.

See Figure 7 for an example where a community selected an earthquake, a cyber-attack, a flood, an active shooter, and a chemical hazmat release—each of which most challenged at least one core capability.

Earthquake	Cyber Attack	Flood	Active Shooter	Hazmat Release - Chemical
Community A identifies the threat or hazard that presents the **greatest challenge** to each core capability.				
Presents the greatest challenge to:				
Operational Coordination	Intelligence and Information Sharing	Public Information and Warning	Interdiction and Disruption	Access Control and Identity Verification
Risk Mgmt. for Protection Programs and Activities	Forensics and Attribution	Planning	Screening, Search, and Detection	Physical Protective Measures
Risk and Disaster Resilience Assessment	Cybersecurity	Supply Chain Integrity and Security	Threats and Hazards Identification	Long-term Vulnerability Reduction
Critical Transportation		Community Resilience	On-scene Security, Protection, and Law Enforcement	Environmental Response/Health & Safety
Fatality Management Services		Logistics and Supply Chain Management		Public Health, Healthcare, and EMS
Fire Management and Suppression		Mass Care Services		Situational Assessment
Mass Search and Rescue Operations		Operational Communications		Health and Social Services
Infrastructure Systems		Economic Recovery		
Natural and Cultural Resources		Housing		

A single threat or hazard may most challenge multiple core capabilities.

Figure 7: A single threat or hazard may most challenge more than one core capability.

Sources of Threat and Hazard Information

Consulting multiple sources during the THIRA process helps establish a comprehensive list of the threats and hazards that communities may face. These sources may include, but are not limited to:

- Existing Federal, state, local, and tribal strategic and operational plans
- Existing threat or hazard assessments (e.g., the Hazard Identification and Risk Assessment)
- Forecasts or models of future risks due to changing weather and demographic patterns or emerging threats
- Hazard mitigation plans
- Intelligence fusion center bulletins and assessments
- Local, regional, tribal, and neighboring community THIRAs
- Records from previous incidents, including historical data
- Homeland security and emergency management laws, policies, and procedures
- Private-sector plans and risk assessments, including those for lifeline functions (communications, energy, transportation, and water)[6]

Factors for Selecting Threats and Hazards

When identifying threats and hazards to include in the THIRA, communities consider two key factors: (1) the likelihood of a threat or hazard affecting the community; and (2) the challenge presented by the impacts of that threat or hazard, should it occur.

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[6] Lifeline functions are functions that are essential to the operation of most critical infrastructure sectors. For additional information on lifeline functions please visit:
https://www.dhs.gov/sites/default/files/publications/national-infrastructure-protection-plan-2013-508.pdf.

Factor #1: Likelihood of a Threat or Hazard Affecting a Community

For the purposes of the THIRA, "likelihood" is the chance of a given threat or hazard affecting a community. Likelihood is important to consider because communities must allocate limited resources strategically. A particular threat or hazard might be possible, but communities should determine whether the likelihood of its occurrence is large enough to drive investment decisions.

Through the THIRA, communities identify the threats and hazards that are challenging enough to expose their capability gaps, and are likely enough that a community can justify investing in the capabilities necessary to manage those threats and hazards.

> **Considering the Location of Threat and Hazard Consequences**
>
> Although incidents may have wider regional or national effects, communities completing the THIRA should focus strictly on the consequences within their community. In some cases, it may be useful to include threats and hazards that occur in other locations if they trigger local effects.
>
> **For Example:**
>
> An industrial accident at a chemical plant located in one particular community could affect people in another community who are downwind or downriver from the accident.

The ability to predict the likelihood of a specific incident varies greatly across threats and hazards. Some hazards, such as floods, have mature prediction models that can allow communities to calculate the numerical probability of a specific incident, such as 1 in 100 or 1 percent a year, with a moderate degree of accuracy. Other incidents, such as terrorism, are more difficult to predict and communities may most easily express them on a logarithmic scale, such as 1 in 1,000, or on an ordinal scale, such as low, medium, and high. Regardless of how communities express the probability of a specific incident, understanding the likelihood of their threats and hazards can help communities understand capability requirements and prioritize investments.

Including estimates of probability in the THIRA is not necessary, but communities may do so if they deem it appropriate. Communities can also consider additional sources for useful likelihood and consequence information to inform their threat and hazard selections, such as hazard mitigation plans. Regardless of whether probability is included in the THIRA process, communities only consider those threats and hazards that could realistically occur.

Factor #2: The Impacts of a Threat or Hazard

The projected impacts of threats and hazards determine the level of capability that a community will need to address those impacts. To understand their risks effectively, communities should identify and select threats and hazards that have impacts that most challenge their communities, and therefore their capabilities. When assessing impact, it is important to consider that different incidents present different types of challenges. In some cases, the sheer magnitude of the incident may be substantial. In other cases, there may be operational or coordination complexities or economic and social challenges.

Communities may include as many threats or hazards in their THIRA as they desire but should, at a minimum, include as many threats and hazards as needed to most challenge each of the 32 core capabilities.

Step 2: Give the Threats and Hazards Context

In Step 2 of the THIRA process, communities create context descriptions and estimate the impacts of the threats and hazards identified in Step 1 (see Figure 8). Context descriptions and impacts inform THIRA Step 3 where communities determine the level of capability they would like to achieve. When creating context descriptions and estimating impacts, communities should consider community-wide sources, such as real-world incidents, SMEs, exercises, response and recovery plans, modeling, or tools. Identifying different sources provides communities with key data points that they can use to determine how a threat or hazard may affect their community. For example, SMEs can help shape context descriptions by outlining the time, place, and location of the threat or hazard in a way that shows how it challenges a community's capabilities.

THIRA Step 2: Key Changes
▪ Communities now identify the impacts for their chosen threats and hazards in **Step 2**, rather than Step 3, because this flows more naturally from developing context descriptions. ▪ Communities now estimate the impacts of each threat and hazard using **standardized impact language** (numerical entry), rather than providing free-text impacts, establishing a common language for describing impacts at all levels of government.

Identifying sources of information is extremely important for continuity of the assessment process. Communities may not update the THIRA for several years, so there may be changes in staff involved in the process between updates. The potential resulting loss in knowledge and experience after staff turnover can make it challenging to maintain continuity between updates. Citing sources helps to complete future THIRA updates, increasing consistency, improving data credibility, and reducing duplication of effort.

Figure 8: The outputs of Step 2 of the THIRA are context descriptions and impact numbers.

Step 2.1: Context Descriptions

In Step 2.1 of the THIRA, communities add context to each threat and hazard identified in Step 1. **Context Descriptions** are the details about a threat or hazard needed to identify the impacts it will have on a community and includes critical details such as **location, magnitude, and time** of an incident.

If an element of the scenario is essential to understanding the impact of an incident and the capabilities required to manage it, that element should be included in the context description.

For example, at night, residential structures have a higher occupancy, while during the day, schools and office buildings have higher occupancies. In this example, search and rescue missions would target different locations based on the time of the day the scenario occurs. See Table 2 for more examples on how critical details can influence a context description.

Table 2: Questions to Consider When Developing Context Descriptions

Best Practices for Developing Context Descriptions	
Questions to Consider	**Examples in Practice**
How would the timing of an incident affect the community's ability to manage it? What time of day and what season would be most likely or have the greatest impact?	Community A is a very popular summer tourist destination. A tornado occurring at 7:00 p.m. in June might have the greatest impacts, as large numbers of tourists will be on the roads returning to their hotels.
How would the location of an incident affect the community's ability to manage it? Which locations would be most likely or have the greatest impacts (e.g., populated areas, coastal zones, industrial or residential areas)?	Community B has a high population density in the north and very low population density in the south. A pandemic might result in the greatest impacts in the north, where the disease can spread among the population more quickly.
What other conditions or circumstances make the threat or hazard of particular concern (e.g., atmospheric conditions like wind speed/direction and relative humidity, or multiple incidents occurring at the same time)?	Community C experiences a hazardous materials release. The worst impacts might occur on a day with increased wind speed directed towards the highly populated residential areas in the community.
What social or physical vulnerabilities make the threat or hazard of particular concern? (e.g., flood prone areas, populations with limited or no ability to evacuate)?	Community D is located in a mountainous region, with its population spread between the suburban areas in the foothills and the rural mountain communities. A wildfire might have greater impacts in the mountain communities, which have limited roads that the population can use to evacuate and is more difficult to access by response workers.

See the example context descriptions below for a comparison between sufficient and insufficient levels of detail. The example with sufficient detail provides suggested types of information that a community might want to consider including in their context descriptions.

Example Context Description: Insufficient Level of Detail
An active shooter incident occurs, involving multiple gunmen and many potential victims. There are dozens of fatalities and injuries, and first responders arrive to the scene quickly. There are reports that the incident may be related to terrorism.

Example Context Description: Sufficient Level of Detail
At approximately 2:00 p.m. on a Sunday afternoon, local police and State Troopers are dispatched to Thiraland City Mall responding to reports of an active shooter situation. 9-1-1 calls from patrons report between one and four shooters, with varying reports of the types of weapons, number of weapons, and number of injured people. At the time of the incident— among the busiest the mall experiences during a normal week—the 1,200,000 square foot facility was occupied by approximately 8,500 shoppers and employees. Upon arrival, authorities find crowds pouring out of the mall's exits. Some are unharmed while others are severely injured. Advanced Life Support (ALS) and Basic Life Support (BLS) units are en route, with mutual aid EMS being dispatched. Shots are still heard inside, and the injury count cannot be immediately estimated. The closest hospital facility is approximately 3 miles from Thiraland City Mall. The closest Level I Trauma Center is approximately 18 miles from Thiraland City Mall. The medical facilities have been notified of the incoming patients, but the unknown number and extent of injuries, ongoing shortages of IV bags, and understaffing raise concern about the facilities' ability to care for the incoming victims. Within an hour, the state fusion center is receiving credible intelligence of a terrorism link to the attack.

Step 2.2: Estimate Impacts

In Step 2.2, communities estimate the impacts a scenario would have on their community if the threat or hazard occurred. Communities write **impacts** in the language of common emergency management metrics, such as affected population, number of people requiring shelter, or number of people requiring screening. The THIRA process uses a uniform set of these common metrics, or **standardized impact language** (see Figure 9). The standardized impact language represents metrics estimated by every community, and in most cases, across multiple different threats and hazards. The estimated impact from this step provides the basis for creating capability target statements in Step 3 of the THIRA process (see Figure 10).

When determining the impacts of a threat or hazard, it is important to engage relevant stakeholders and SMEs that can provide varying perspectives. For example, when estimating impacts and setting capability targets for the Infrastructure Systems core capability, including input from each of the infrastructure sectors provides a holistic view of the different ways a threat or hazard may challenge the capability.[7]

Composition of an Impact

Standardized impact language	**+**	Community-specific number	**=**	Impact
(#) people requiring long-term housing		1,350		1,350 people requiring long-term housing

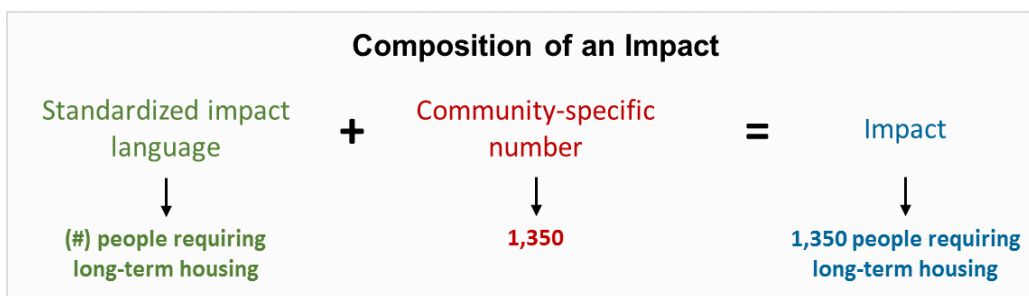**Figure 9: Impacts are developed by adding community-specific numbers to standardized impact language.**

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[7] For additional information on the Critical Infrastructure sectors, please visit: https://www.dhs.gov/critical-infrastructure-sectors. More information is also available at: https://www.fema.gov/media-library-data/1471451918443-dbbb91fec8ffd1c59fd79f02be5afddd/Recovery_FIOP_2nd.pdf.

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.

Figure 10: Communities use standardized impacts data to create capability targets.

Communities develop capability targets in Step 3 based on their estimated impacts. As such, communities identify a community-specific number for the standardized impact language in Step 2.2 before proceeding to Step 3. Ideally, communities will estimate all standardized impacts for each threat or hazard scenario. However, at a minimum, to develop capability targets in THIRA Step 3, communities will develop an estimate for each standardized impact at least once across all included threats and hazards.

In addition to the impacts for which there is standardized language, communities may include as many other impacts in their THIRA as they deem appropriate. They may choose to include additional non-standardized impact language, if they want to describe certain effects of a disaster that are not included in the standardized impact language. Communities may find this helpful when considering their threats and hazards. If a community chooses to estimate an impact using data from only one scenario, they should use data from the scenario that would create the most challenging impact.

> **Identifying the Most Challenging Impact**
>
> The impact with the largest number is not necessarily always the most challenging to address. For example, it may be more challenging to provide medical care to a smaller number of individuals affected by a radiological attack (which may include additional considerations like decontamination or personal protective equipment) than a larger number of hurricane survivors.

Step 3: Establish Capability Targets

In Step 3 of the THIRA process, communities establish **capability targets**—which describe the level of capability a community plans to work toward achieving—for each of the 32 core capabilities (see Figure 11). These capability targets are not a reflection of a community's current capability and may represent a long-term desired capability level. To develop capability targets, communities consider what is required to address the impacts of their threats and hazards. In addition to the risks posed by their threats and hazards, communities also take into account expected resources and other factors to determine the level of capability their community plans to work toward achieving.

Capability Targets
▪ For the purposes of the THIRA/SPR, communities should view their capability targets as the level of capability communities plan to build to, instead of a target based on maximum capability requirements.
▪ Communities can also include a maximum requirement target in addition to their capability target if they choose.

Figure 11: The outputs of Step 3 of the THIRA are capability targets that use standardized target language.

In the THIRA, communities create capability targets for each of the 32 core capabilities. To create a capability target, communities fill in the blanks within the standardized target language to show the level of capability they want to achieve. FEMA developed standardized target language (see Figure 12) for each capability based on previous THIRA targets submitted by communities, the National Planning Frameworks,[8] the critical tasks in the Federal Interagency Operational Plans (FIOPs),[9] FEMA Core Capability Development Sheets,[10] and community and interagency feedback on draft versions of the targets.

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[8] For additional information on the National Planning Frameworks, please visit: https://www.fema.gov/national-planning-frameworks.

[9] For additional information on the FIOPs, please visit: https://www.fema.gov/federal-interagency-operational-plans.

[10] For additional information on the Core Capability Development Sheets, please visit: https://www.fema.gov/core-capability-development-sheets.

Examples of Standardized Target Language

Within **(#) hours** of an incident, provide emergency sheltering for **(#)** people; maintain sheltering operations for **(#) days**.

Within **(#) hours** of an incident, provide security and law enforcement services to protect **(#)** people affected.

Within **(#) hours**, extinguish **(#)** structure fires.

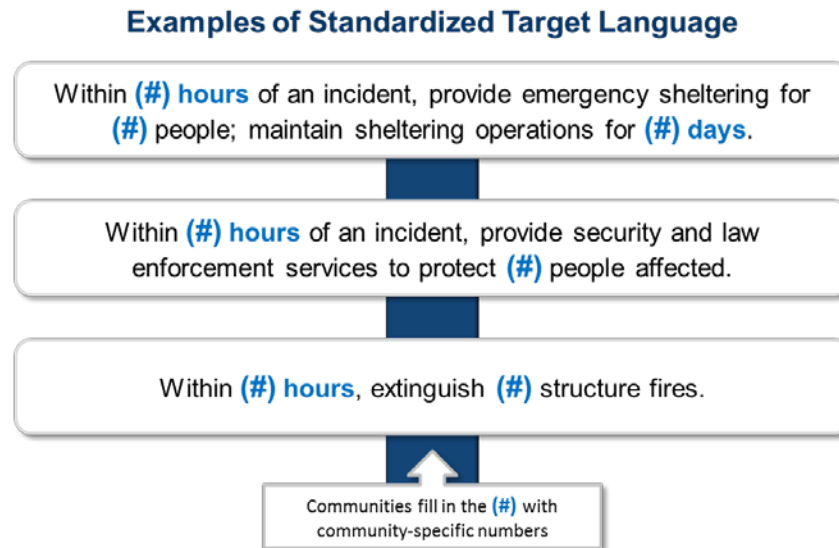Communities fill in the **(#)** with community-specific numbers

Figure 12: Standardized target statements allow communities to determine their specific needs.

The intent of standardized target language is to create measurable indicators of preparedness, not a comprehensive list of everything a community must do to achieve each of the core capabilities successfully. In addition to setting capability targets using the standardized language, communities may also develop non-standardized capability targets if they find it beneficial to capture other elements of their core capabilities.

Impacts, Objectives, and Timeframe Metrics

Each capability target describes a **critical task** that, when completed, helps communities successfully manage a threat or hazard. These critical tasks (1) are based on the activities that emergency managers plan for; and (2) define activities that must be performed for a wide variety of threats and hazards, not only the ones identified in the THIRA. Additionally, communities estimate which threat or hazard most challenges their ability to achieve the critical task described in each capability target. This adds more utility to the THIRA during real-world incidents. For example, if a hurricane is approaching Community A, emergency managers can look at their THIRA data and see which critical tasks Community A estimated would be most challenged by a hurricane and use that data to inform decisions.

THIRA Step 3: Key Changes

▪ Communities insert community-specific numbers into **standardized target language** to develop **capability targets**, rather than provide free-text capability targets; this establishes a common language for discussing and establishing clear preparedness goals and better aligns the THIRA process with planning.

▪ Communities now indicate which threat or hazard places the greatest challenge on each critical task described in a target, providing potentially useful contextual information during response operations.

▪ Communities will only establish **timeframe metrics** (formerly referred to as desired outcomes) within their targets, and not also as a standalone element, reducing duplication effort.

Capability targets are specific and measurable; communities build them by combining **impacts**, which represent the size of the capability requirement, and **timeframe metrics**, which represent the timeframe in which the action must be performed (see Figure 13).
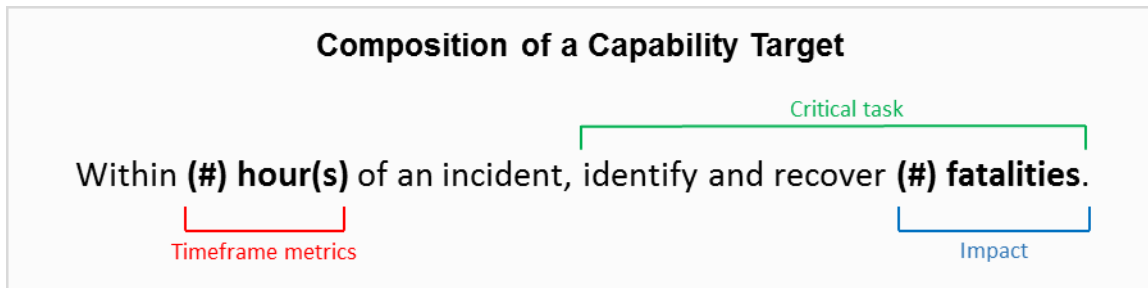

Figure 13: Capability targets are composed of impacts and timeframe metrics.

Impacts and Objectives

For each capability target, communities identify the level of capability they want to work toward achieving. To determine this desired level of capability, communities consider the impacts of their threats and hazards (as estimated in Step 2.2), estimated resource requirements, expected available resources, and other relevant factors. The impact that a community selects for their target does not need to match the impacts identified in Step 2.2. However, communities should ensure they understand the risk posed by their threats and hazards and use that knowledge to inform the impacts they include in their capability targets. For example, Community B estimates that an earthquake will result in 890 miles of road affected while a wildfire will result in 700. Community B lists "890" as its impact in Step 2.2 but this does not mean that they must set their capability target as "clear 890 miles of road affected." Communities can set their capability target to the level they deem appropriate and should use their impact data to guide decisions on what that level of capability should be. If a community selects an impact that is different from the one identified in Step 2.2, they describe how they chose that impact and the sources used. THIRA capability targets should reflect communities' unique planning and investment strategies.

In addition to capability targets, communities may also set an additional target called a "maximum requirement" target. The **maximum requirement** reflects the highest level of a potential capability requirement. This maximum requirement reflects the impacts of the threat or hazard that most challenges the critical task described in the capability target.

It is important to note that not all capability targets are impact-based. While most targets use post-incident quantitative impacts as explained above, some capabilities focus on preventing an occurrence of or lessening the vulnerabilities that affect the scale of a threat or hazard. Instead of a traditional standardized impact, these targets include a measurable objective that represents a goal the community has set for that core capability (see Table 3).

Table 3: Examples of the two main types of capability targets.

Examples: Types of Capability Targets	
Driven by Quantitative Impacts	**Driven by Measurable Objectives**
Within **(#)** months of an incident, reopen **(#)** businesses closed due to the incident.	Coordinate across state, local, and federal communities and integrate with partners, community-wide, to effectively invest **(#)** % of all available mitigation funding, within **(#)** years.
Within **(#)** hours of an incident, complete triage, begin definitive medical treatment, and transfer to an appropriate facility **(#)** people requiring medical care.	Every **(#)** months, **(#)** % of critical infrastructure facilities conduct a risk assessment and accompanying facility security level (FSL) determination for assessing and addressing changes in threats and vulnerabilities.

Timeframe Metrics

Timeframe metrics describe the timeframe or level of effort needed to successfully deliver core capabilities. When constructing targets, it is not enough to know how much of an objective you plan to accomplish, you may also need to know how quickly you must be able to activate that capability, and how long you need to be able to sustain it. The answers to these questions will be unique to the capability target in question.

When considering timeframes, communities should not be constrained by their current ability to meet timeframes or other conditions of success; rather, they should identify the timeframe that they desire to achieve. Communities should use the type of metric that is most appropriate for the given capability. For the core capability Mass Search and Rescue Operations that might be "search (#) structures **within # hours**," while for Threats and Hazards Identification, a more appropriate timeframe might be "model (#) scenarios **every # years.**" Communities should work with SMEs and stakeholders to determine time-based metrics that are most appropriate for each capability.

> **Timeframe Metrics**
>
> Communities can use the following timeframe metrics:
>
> - (#) minutes
> - (#) hours
> - (#) days
> - (#) weeks
> - (#) years

Developing Capability Targets

Capability targets define success for each core capability and describe what the community wants to achieve. In the THIRA, communities create capability targets for the core capabilities listed in the National Preparedness Goal. Communities use standardized language and community-specific metrics to construct these targets.

For example, under the Critical Transportation core capability, the standardized target language for debris removal is "Within (#) (time) of an incident, clear (#) miles of road affected, to enable access for emergency responders, including private and non-profit." In this example, a community would choose a time-based metric (i.e., hours), and fill in the number of hours and miles of affected road to capture the level of capability they plan to work toward achieving.

In addition to setting capability targets using the standardized target language for each of the 32 core capabilities, communities may also want to develop additional targets. These additional targets can capture goals to achieve additional capabilities or critical tasks that are specific to the community's needs.

The SPR Process

The SPR is an annual three-step self-assessment of a community's capability levels based on the capability targets identified in the THIRA. It helps answer the questions:

- What are our current capability levels and how have our capabilities changed over the last year?
- What gaps exist between the capabilities we want to achieve and the capabilities we currently have?
- What do we need to do to close the capability gaps or sustain the capabilities?
- What impact did different funding sources—including grants—have on building or sustaining the capabilities assessed by the capability targets over the last year?
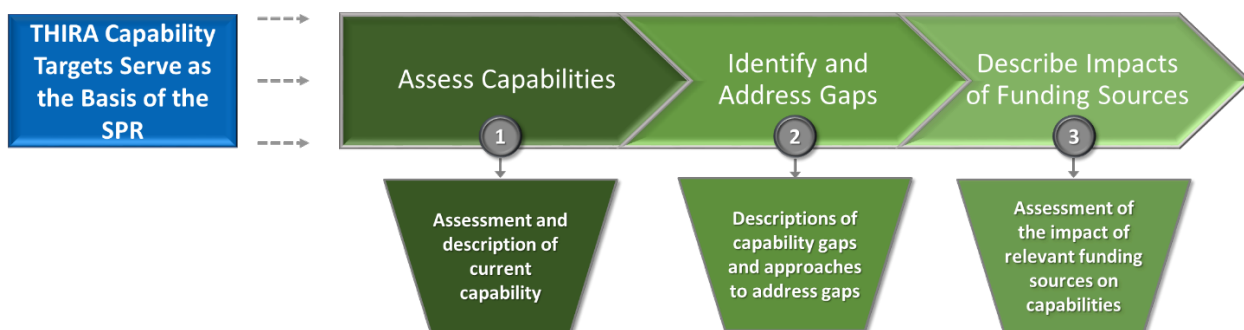

Figure 14: The SPR process consists of three steps, building off the capability targets developed in the THIRA.

The SPR supports the National Preparedness System by helping to identify current capabilities and capability gaps in preparedness at the community level. States, territories, tribes, urban areas, and the Federal Government use the SPR results to prioritize capabilities to build and sustain, plan for threats and hazards, and validate capabilities.

Developing an accurate and complete SPR requires the perspectives of a broad range of informed stakeholders and SMEs from a variety of fields. Communities are encouraged to seek input from community stakeholders and SMEs, including local governments (such as counties and townships), businesses, faith-based organizations, non-profit organizations, lifeline functions (communications, energy, transportation and water), and institutions of higher education.

This section describes a three-step process for completing an SPR (see Figure 14):

1. **Assess Capabilities.** Based on the language from the capability targets set in THIRA Step 3, identify the community's current capability and how that capability changed over the last year, including capabilities lost, sustained, and built. Then, provide additional context to explain the reported data and its sources.

2. **Identify Capability Gaps and Intended Approaches to Address Them**. Determine the causes of the capability gap between the capability target and the current capability identified in SPR Step 1. Then, describe the actions and investments needed to close the capability gap or sustain the capability.

3. **Describe the Impacts of Funding Sources**. Identify how relevant funding sources, including but not limited to grant programs and the community's own resources, helped to build or sustain the capabilities assessed by the capability targets and describe how those capabilities were used in a real-world incident(s) over the past year.

Step 1: Assess Capabilities

The purpose of Step 1 of the SPR is to assess and describe a community's current capability and how the capability has changed during the last year (see Figure 14). There are three primary elements in Step 1 of the SPR:

- **Step 1.1:** Communities quantitatively assess their current capability and how that capability has changed over the last year.
- **Step 1.2:** Communities qualitatively describe how their capabilities have changed over the last year.
- **Step 1.3:** Communities provide context on how they calculated their capability and how confident they are in that assessment.

> **SPR: Key Changes**
>
> - Communities now assess their current capability using the same language as their capability target, rather than assigning 1-5 ratings to core capabilities.
>
> - Communities will also now provide free-text descriptions to elaborate on their capability estimates, and will rate their confidence in the accuracy of the information they report.

Step 1.1: Quantitatively Assess Capability

The purpose of Step 1.1 of the SPR is to identify how a community's capabilities have changed over the last year and how those changes affect the community's current capability (see Figure 15). This step requires determining five quantitative data-points:

- **Beginning Capability:** How much capability did the community have at the start of the year being assessed?
- **Capability Lost:** How much capability did the community lose over the course of the year?
- **Capability Sustained:** How much of the capability that the community started the year with still remains?
- **Capability Built:** How much capability did the community add during the year?
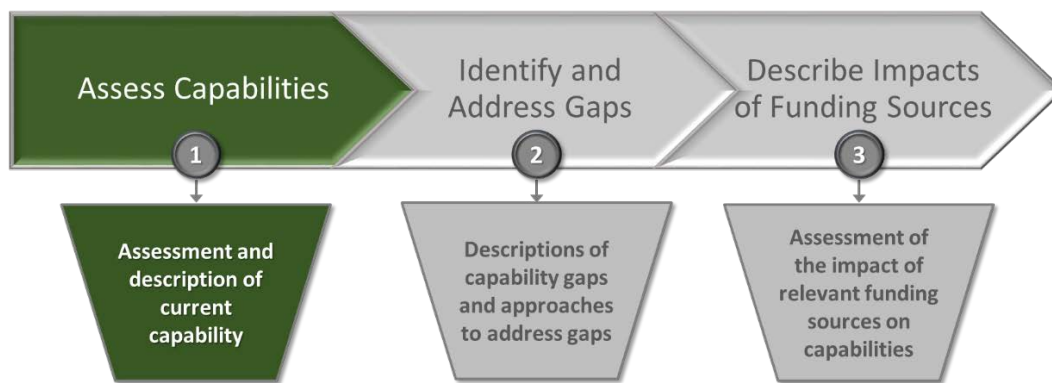- **Current Capability:** How much capability does the community have now?

Figure 15: The output of Step 1 of the SPR is an assessment and description of current capability.

Accurately assessing capabilities, while important, is challenging, and often situation-dependent. The quantitative data entered in Step 1.1 of the SPR process, while only an estimate, should be as accurate as a community can reasonably achieve to make the assessment results useful to the community.

Benefits of Identifying Changes in Capability
Capturing capabilities built, sustained, and lost provides a more complete preparedness picture by accounting for the work communities are doing to **build capability**, **offset attrition** and **maintain existing capabilities.**

All capabilities are fundamentally dependent on **timeframe metrics**. Asking a community "how many people can you feed?" provides limited data unless paired with the questions "how quickly?" and "for how long?" During Step 3 of the THIRA process, communities identify a timeframe metric for each capability target. When communities assess their current capability in the SPR, they base their assessment on the same timeframe metric that they identified in Step 3 of the THIRA (see Figure 16). For example, if a capability target says a community will perform a capability in one week, the capability assessment will determine the extent to which they can actually perform that capability in one week.

Figure 16: Communities use the timeframe metric(s) from their capability target in the capability assessment.

The data collected in Step 1 of the SPR forms the basis of the formulas used to calculate the current capability. One approach is to start with the **beginning capability**, and subtract the amount of **capability lost** over the last year to identify the **capability sustained**. Using that capability sustained, communities can add in the **capability built** over the last year to identify the **current capability** (see Figure 17).

Figure 17: Communities can use a formula to calculate their current capability.

Beginning Capability

The beginning capability describes the level of capability the community had at the beginning of the year they are assessing. This number will typically be the current capability from the prior year's SPR, if the community completes the SPR annually (see Figure 18).
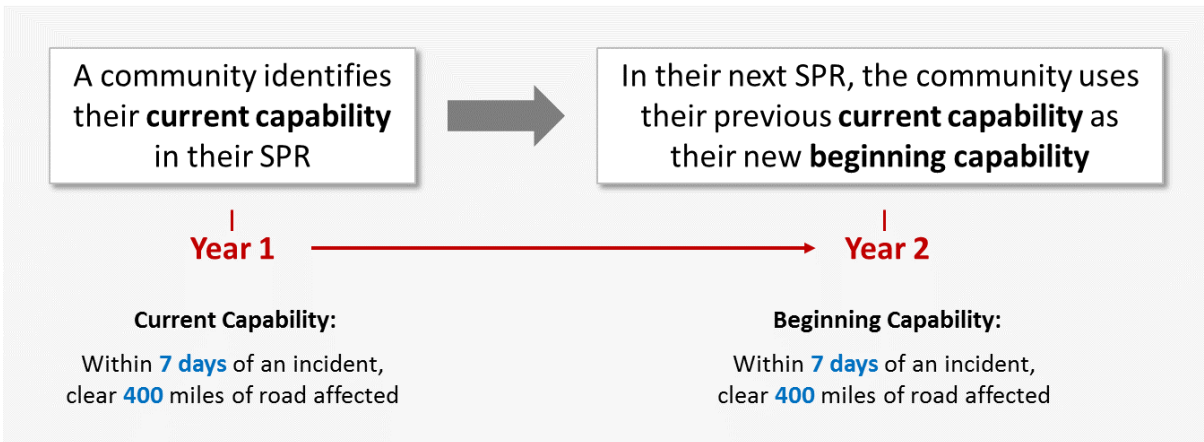

Figure 18: The beginning capability is frequently, though not always, the current capability from the previous year's SPR.

The beginning capability may be different from the previous year's current capability, however, if the community receives new information about its current capability after the completion of the last year's SPR and prior to beginning the current year's SPR. This could occur in several ways, including performance in a real-world incident or exercise that provides the community with a better understanding of their capability (see Figure 19). In such cases, communities will use their new estimate of their beginning capability, and describe the reasons behind the change in the SPR Step 1.3 free-text box.
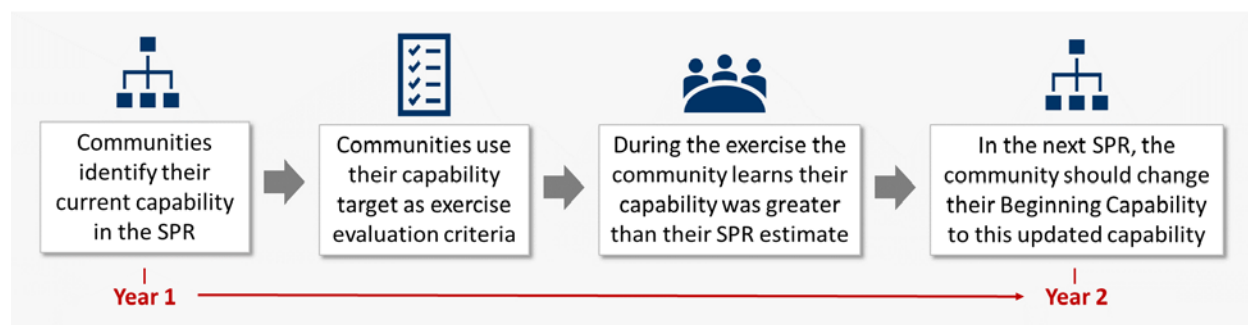

Figure 19: The beginning capability can change from the previous year's SPR current capability if a community identifies more accurate information between SPRs.

Capability Lost

Unfortunately, capabilities that a community has built are sometimes lost, either through attrition (retirements, expired training, etc.) or degradation (resources are used, equipment breaks, etc.). Accurately tracking capabilities requires understanding how much capability is lost. Tracking lost capabilities also helps to demonstrate the challenge that emergency managers face in maintaining the existing capabilities needed to meet their capability targets.

In some cases, a capability may be completely lost, such as the dissolution of a public-private partnership focused on infrastructure restoration. In many cases, however, a capability may only partially degrade, such as a mitigation planning team losing personnel due to retirements. In the SPR, communities will track current capabilities that can actually be used, and therefore a capability should be considered lost if it was operational at the time of the last SPR submission but is no longer operational at the time of the current submission. If a community brings that capability back on-line in the future, they should consider it a capability built.

Reporting Changes in Capability
Reporting annual changes in capability by those lost, sustained, and built—compared to the previous 1-5 ratings—better highlights small, but significant improvements in capabilities. This allows communities to account for the work they are doing to offset attrition and maintain existing capabilities, which helps prioritize investments and inform strategic plans.

Capability Sustained

Capabilities that communities maintain from the previous year are considered sustained. Including capabilities sustained in the SPR recognizes the necessary investments that communities make to maintain the capabilities they have previously built. If a capability was operational at the time of the previous SPR submission and is still operational at the time of the current submission, it is considered sustained, even if that capability was not operational during portions of the preceding year.

Capability Built

Capabilities built are new capabilities that were not operational during the prior year. This can occur for several reasons: 1) because the capability did not exist during the prior year; 2) because the capability was under development during the prior year; and 3) because the capability had partially degraded during the prior year and needed to be brought back on-line. Table 4 depicts examples of Building Capability and common reasons why each might occur.

A capability is not operational until it is complete. For example, a fire company may be working to become a Type III Search and Rescue team, and over the span of five years, they may add personnel, equipment, and training. All of that work is important, but the capability is not operational for the purposes of the SPR capability assessment until all required components are complete. Communities can still capture the development of incomplete capabilities, however, in SPR Step 1.2, in the free-text descriptions for the capability built over the past year.

Most communities will not build all capabilities every year due to funding, available time and personnel, or other reasons. FEMA does not make any judgement on what is "normal" regarding how often, and to what degree, capabilities should change. The methodology is designed to accurately capture any positive, neutral, or negative changes in capability in a way that most accurately reflects the unique experience of each community.

Table 4: Examples of several ways that how communities might build capability.

Examples of How Communities Can Build Capability	
Driver of Capability Building	**Examples**
Capability did not exist in the prior year	- First-time purchases of resources and materials - Additional personnel hires - New partnerships with community stakeholders that have required capabilities
Capability was under development during the prior year	- Training is underway, but it was incomplete at the time of the prior SPR - The community ordered new equipment, but had not yet received it at the time of the prior SPR
Capability had partially degraded during the prior year and was brought back on-line	- Damaged equipment was repaired since the prior SPR - A team that required a position filled has hired a new employee for that position since the prior SPR - Renewed expired training since the prior SPR

Current Capability

Current capability represents a community's current operational capability. An operational capability is one that can be used somewhere within the community. A capability does not need to be immediately available for it to be operational (see Figure 20). A capability that is currently deployed, for example, should be considered operational unless it will not be available for future use until additional requirements are met. Single use and disposable capabilities that are currently deployed should not be considered operational for the SPR.

Example of Operational vs. Non-Operational Capability

Operational

A ladder truck that requires minor, routine maintenance after an operation can still be considered operational.

However…

Non-Operational

If the ladder truck is completely inoperative without major repairs or replacement, it is **not** considered operational.

Figure 20: An example of operational vs. non-operational capability.

Individual resources are often not capabilities by themselves. Capabilities typically require some combination of planning, organization, equipment, training, and exercises. As such, communities likely have many capabilities that are partially built, but not fully operational. For example, if a community hires people to make up a shelter management team but cannot provide them the required training and has no plans addressing shelter management, their capability is not fully operational. These partial capabilities should not be included in a community's current capability because they are not operationally ready; however, the partial capabilities often represent a cost-effective way to build new capabilities and close capability gaps.

> **Using Internal Capabilities**
>
> The capabilities assessed in SPR Step 1.1 should be those that exist within the boundaries of the community, whether owned by sub-jurisdictions, or private and non-profit organizations. The capabilities should not be from the Federal Government or achieved through interstate mutual aid. The capability targets are goals for building internal capability, therefore communities complete the capability assessment considering only internal capabilities.

Step 1.2: Describe Current Capabilities and Capability Changes

The purpose of Step 1.2 of the SPR is to elaborate on the quantitative assessment of the capability change provided in Step 1.1 (see Figure 21). Communities identify the POETE areas—planning, organization, equipment, training, and exercises (see Table 5)—in which they lost, sustained, and built capability, and develop free-text descriptions explaining:

- What caused the reported level of capability lost over the last year?
- What actions did the community take to sustain the reported level of capability sustained over the last year?
- What actions did the community take to achieve the reported capability built over the last year?
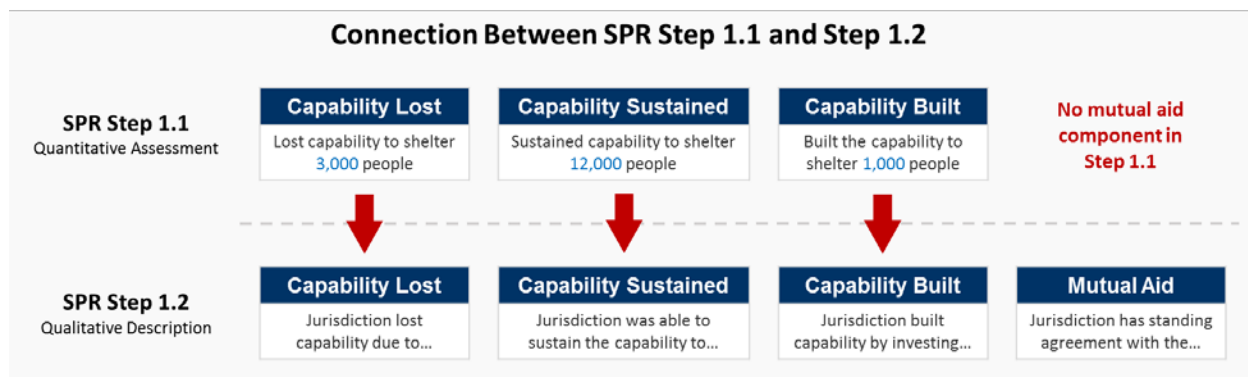- How might existing mutual aid agreements help bridge the gap between the capability target and current capability?

Connection Between SPR Step 1.1 and Step 1.2

SPR Step 1.1 Quantitative Assessment	Capability Lost	Capability Sustained	Capability Built	No mutual aid component in Step 1.1
	Lost capability to shelter 3,000 people	Sustained capability to shelter 12,000 people	Built the capability to shelter 1,000 people	
SPR Step 1.2 Qualitative Description	Capability Lost	Capability Sustained	Capability Built	Mutual Aid
	Jurisdiction lost capability due to…	Jurisdiction was able to sustain the capability to…	Jurisdiction built capability by investing…	Jurisdiction has standing agreement with the…

Figure 21: A visual depiction of the relationship between SPR Steps 1.1 and 1.2.

While the quantitative assessment provides a valuable breakdown of how capability has changed over the past year, it does not explain how or why those changes occurred. As such, communities describe, in as much detail as possible, the specific actions, investments, resources, or external factors that led to the changes in capability. Many of the explanations may relate to

funding availability and will be reflected in SPR Step 3. For example, communities might explain that they built their capability by fully training all their shelter management teams and purchasing an additional facility that the community can use as a fully accessible shelter.

Table 5: These are the definitions of the POETE areas: planning, organization, equipment, training, and exercises.

POETE Areas	
Planning	Development of policies, plans, procedures, mutual aid agreements, strategies, and other publications; also involves the collection and analysis of intelligence and information
Organization	Individual teams, an overall organizational structure, and leadership at each level in the structure
Equipment	Equipment, supplies, and systems that comply with relevant standards
Training	Content and methods of delivery that comply with relevant training standards
Exercises	Exercises and actual incidents that provide an opportunity to demonstrate, evaluate, and improve the ability of core capabilities to perform assigned missions and tasks to standards

When referring to equipment, teams, and personnel throughout the assessment of capabilities, communities consider pre-existing national resource type definitions, such as those outlined in **National Incident Management System (NIMS)** resource typing.[11] Including these resources and terms allows communities to maintain consistent language over multiple assessment periods. Providing as much detail as possible makes the SPR data more useful for planning, prioritizing investments, and preparing for real-world incidents.

While the SPR does not quantitatively assess mutual aid, it is an important consideration for planners. Mutual aid is an essential component of a successful response and recovery, as it offsets capability gaps and is often the most efficient way to deliver certain capabilities, resources, and services. As such, communities use a free-text box to describe how mutual aid agreements may affect their current capability and should provide any additional context that they deem necessary or useful. For example, they may provide additional information on the nature and extent of their mutual aid agreements with other communities, such as what they include, how long the agreement has been in place, or whether the mutual aid agreement has been activated during a real-world incident. This information supplements the internal capability assessment and planners can use it to identify sources of additional capability, or potential overlap in mutual aid agreements among communities in the same region.

In addition to the free-text descriptions, communities identify the POETE area changes that resulted in changes in capability over the past year. For capability lost, communities select the POETE areas in which that capability was lost over the past year. For capability sustained and

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[11] For additional information on NIMS and resource typing please visit: https://www.fema.gov/national-incident-management-system.

capability built, communities note in which POETE areas they made investments that resulted in either capability sustainment or growth.

Step 1.3: Provide Context on Current Capability Estimations

The purpose of Step 1.3 of the SPR is to provide additional context for the responses provided in Step 1.1 and Step 1.2. Communities do this in three ways:

- Describe their level of confidence in the accuracy of their quantitative assessment
- Identify the sources used to determine their responses
- Provide any other useful context to better understand their quantitative responses

Describe Confidence in the Accuracy of the Quantitative Assessment

Communities may find that they can measure some capabilities more easily than others. Moreover, even for those capabilities, the necessary data may be difficult to access or otherwise be unavailable. Conversely, some communities may be extremely proficient in understanding and measuring their capability in certain areas due to vast experience across many disasters. To identify their level of confidence in the accuracy of their capability assessment, Step 1.3 asks communities to rate their confidence on a five-point Likert scale:

- 1 – Lower confidence
- 2
- 3
- 4
- 5 – Higher confidence

> **Benefits of Assessing Confidence in Capability Assessments**
>
> Rating the level of confidence in each capability assessment allows the Federal Government to identify areas of relative low or high confidence throughout the Nation, which it can use to target technical assistance efforts.

The data confidence ratings provide additional context on the reliability of the reported capability assessments, which can be useful in both strategic and operational contexts. Federal planners will have a stronger sense of which information is most credible and can better understand how the data should be interpreted as they follow-up with communities. In addition, it allows communities to be transparent about potential variance and, therefore, more accurate in their reporting. See Table 6 for examples of why a community might report a given confidence level on the scale.

Table 6: Examples of how communities can approach their selection of a confidence level for their capability assessment.

Confidence Level	Example Rationale for Chosen Confidence Level
Confidence Level: **1**	- Have not performed a large-scale sheltering mission in over 13 years, and have no AARs to review - No past exercises focusing on their sheltering capability; they have minimal subject-matter expertise - Capability estimate is based on that of similar surrounding states, but they have very little confidence that it is accurate
Confidence Level: **2**	- Have not performed a large-scale sheltering mission in over 10 years, and only has a high-level AAR to review - No past statewide exercise of their sheltering capability; only two counties have exercised their capability - Data on potential locations for shelters is five years old - They used the minimal available data to estimate a statewide capability to shelter 7,000 people, but they think it could be as high as 11,000 people or as low as 4,000 people
Confidence Level: **3**	- They performed a large-scale sheltering mission seven years ago, during which they had a peak sheltering capacity of 9,500 people - Several counties have conducted sheltering exercises in recent years showing an increased capability - Recently hired several SMEs have experience leading shelter management teams in other states - The list of potential locations for shelters was recently updated but they are not confident about some options in rural communities - They estimate that they can shelter a maximum of 11,800 people, but they believe it could be as high as 14,000 or as low as 10,500
Confidence Level: **4**	- Reviewed their AAR from an incident four years ago, where they had a peak sheltering capacity of 13,000 people - Starting with 13,000 people as a baseline, SMEs met to discuss the changes since the last incident - The list of available locations for sheltering is less than two years old and includes a wide variety of options - Based on documented improvements and a recent regional sheltering tabletop exercise, they estimate that they can shelter 15,000 people and are mostly confident that their estimate is accurate within 750 people
Confidence Level: **5**	- They performed a large-scale sheltering mission two years ago where they had a peak sheltering capacity of 14,200 people - The list of available locations for sheltering is less than a year old and includes recent additions of private-sector facilities with agreements to provide sheltering - They participated in a regional sheltering and mass care exercise last year (including private-sector partners and several large counties) - Based on their capability in the recent incident, the validation provided by the regional exercise, and the formal agreements with the private-sector, they are confident that they can now shelter a maximum of 15,500 people

Identify the Sources of Information Used to Determine the Quantitative Responses

Communities identify the sources of information considered in assessing capabilities, including real-world incidents, SMEs, exercises, plans, policies, modeling or tools, and other sources of

information. Identifying sources of information is extremely important for continuity of assessments within a community. Citing sources helps to map out where the baseline for the assessment originated for future SPRs, increasing consistency and reducing duplication of effort.

Provide Context to Better Understand the Quantitative Current Capability Assessment

While the quantitative assessment provides valuable estimates of a community's capability, it cannot capture all the information needed to contextualize the quantitative assessment or expand on it. In Step 1.3, communities provide that extra context. Communities are encouraged to consider the following questions:

- How would your capability change if the timeframe metrics were increased or decreased?
- Is there a range of capability numbers that accurately capture the upper and lower bounds of your capability? If so, what made you select the number that you did for your estimated current capability?
- Are there specific known factors in your community that would significantly alter your estimated current capability?
- What is the rationale behind your selected level of confidence in your data?

> **Uses for Additional Context**
>
> This content helps planners and other users of the data fully understand a community's capabilities, including any caveats or special factors that might be important to consider when developing plans or responding to a real-world incident. It is also useful for assessment continuity within a community, as new staff will understand the rationale behind previous years' capability estimates.

For example, a community might report that it can shelter 13,000 people within 48 hours and maintain that capability for 14 days. Due to internal conditions, however, it is possible that community would be able to shelter far more people if the duration of the sheltering was only seven days. Including in the free-text description that the community can shelter 20,000 people for seven days is important information that response planners can use to improve the accuracy of their planning efforts. This information would otherwise not have been known through only the quantitative assessment results.

Moreover, understanding why a community might have a relatively low confidence in their capability assessment is also valuable information. The data necessary to validate the capability may simply not be available or may not be possible to collect. This additional context enables communities to more accurately interpret the reported data confidence ratings and as appropriate, to target outreach, prioritize technical assistance efforts, and develop supporting operational plans.

Communities may also be interested in assessing their level of capability for timeframe metrics that they did not include in the capability target. This can also be useful for planning purposes, to identify a community's capability for various situations with differing requirements. For example, a community may wish to know the number of customers they can return power to within 24 hours, in addition to the capability target timeframe metric of three days.

Step 2: Identify and Address Capability Gaps

In Step 2 of the SPR, communities describe the capability gap between the capability target they set in THIRA Step 3 and the current capability determined in Step 1 of the SPR, and describe how they plan to address those capability gaps (see Figure 22). There are two primary elements in Step 2:

- **Step 2.1:** Communities identify and provide free-text descriptions of the capability gaps in relevant POETE areas.
- **Step 2.2:** Communities describe how they plan to address their capability gaps and sustainment needs in relevant POETE areas.
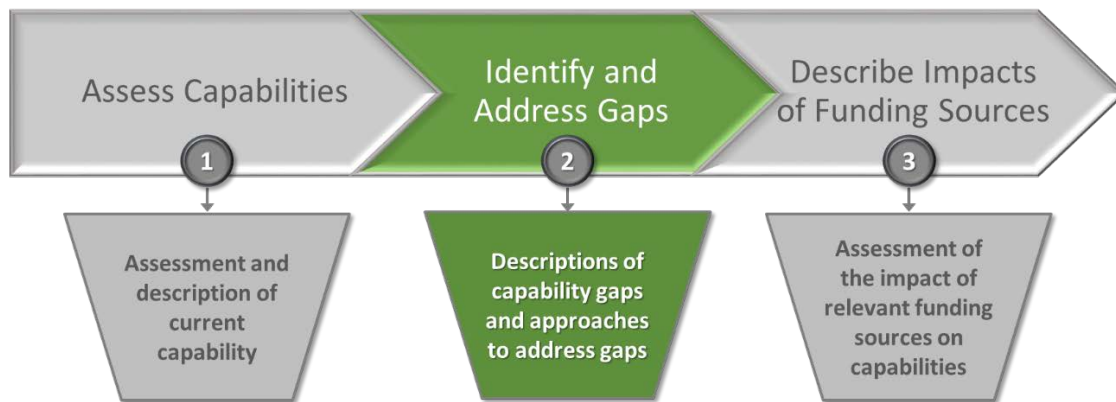
Figure 22: The output of Step 2 of the SPR is a description of capability gaps and approaches to address capability gaps.

Step 2.1: Identify and Describe Capability Gaps

The purpose of Step 2.1 of the SPR is to identify and contextualize the capability gap between a community's capability target and their estimated current capability (see Figure 23). The remaining questions in this step allow communities to add context to that capability gap and explain why the capability gap exists. By understanding capability gaps, communities can begin to prioritize their building and sustainment activities.

| **SPR Key Changes** |
|---|
| ▪ The new SPR methodology collects more information on capability gaps than the previous methodology, which only required communities to select standard functional area gaps. |
| ▪ Communities now report a numerical capability gap (based on their capability target), identify specific POETE areas that contain gaps, provide free-text descriptions for each POETE area, and describe their intended approaches to address those capability gaps. |
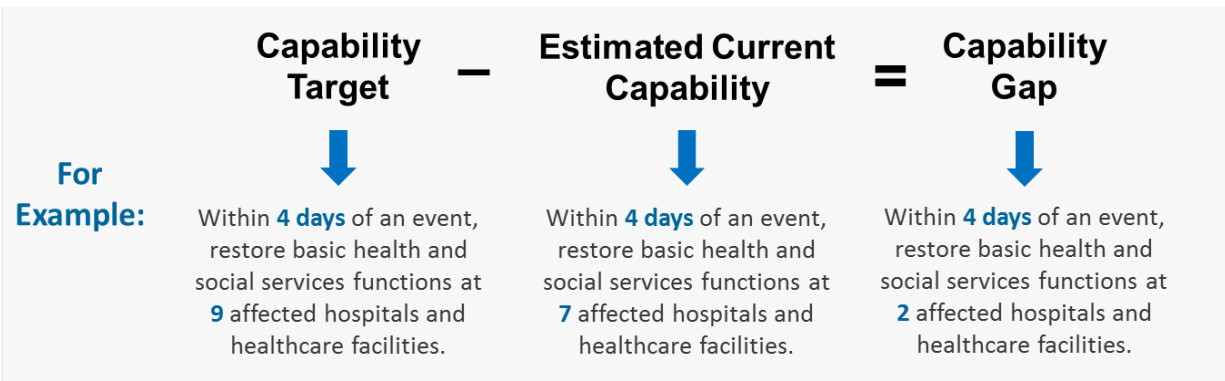
Figure 23: The calculation for identifying an example capability gap.

Priority for Achieving Capability Target

A community has a capability gap if the current capability is less than the capability target. After identifying that capability gap, communities assign a priority rating (High Priority, Medium Priority, and Low Priority) to identify how important it is to achieve that capability target. Communities should attempt to assign priority ratings relative to their other targets and avoid providing the same priority rating for all or most capability targets. This will result in more useful data, as it will clearly demonstrate which capability gaps are more important to address.
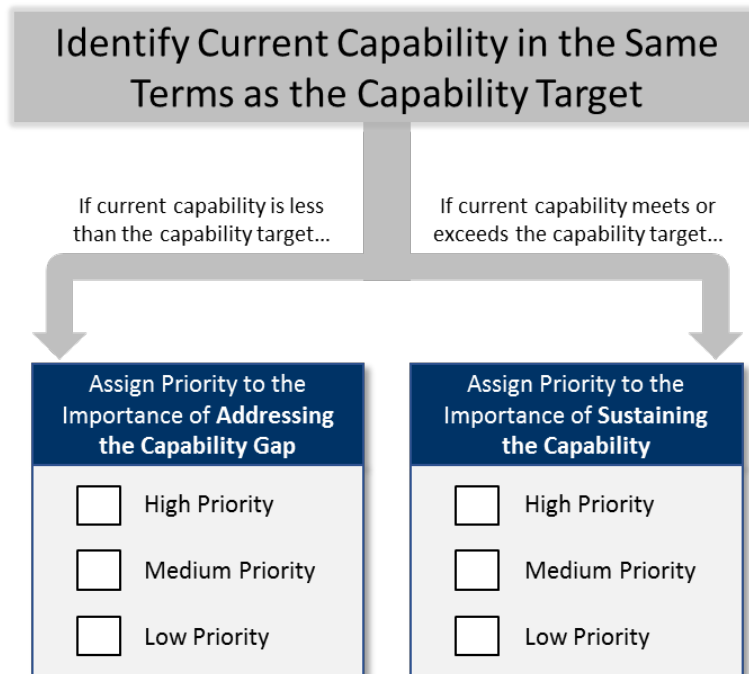

Figure 24: Explanation for how to assign a priority rating for capabilities with and without a capability gap.

In rare cases, a community might not have a capability gap, or may even end up with greater capability than the capability target they set in the THIRA. If their current capability matches or exceeds their capability target, the community still reports a priority rating (see Figure 24) for the capability. This will reflect the level of importance the community places on sustaining their capability, relative to their other targets. For example, a community might have no capability gap in their Mass Search and Rescue Operations capability target, but due to frequent severe flooding, they prioritize the sustainment of that capability more than they prioritize building capacity in other core capabilities that have capability gaps.

POETE Capability Gap Selection and Description

Once communities have prioritized their ability to achieve their capability targets, they provide more context as to the shortfall(s) causing their capability gaps. For each capability target's capability gap, communities identify the POETE areas in which they have a shortfall. The POETE model divides capabilities into meaningful, broad categories of activity and can help communities think through their specific capability gaps. Communities that report a capability gap—meaning their capability target is greater than current capability—report a shortfall in at least one of the POETE areas for the core capability.

In the POETE areas with identified capability gaps, communities then provide a free-text description of how shortfalls or other limitations in that POETE area contributed to their capability gap (see Figure 25). In some cases, the shortfall might be a long-term issue, such as the need to develop and implement training for 100 percent of the required workforce, while other shortfalls may be more temporary occurrences, such as a facility undergoing renovations. This process enables communities to provide actionable data about their capability gaps, and can help communities plan to address key capability gaps.
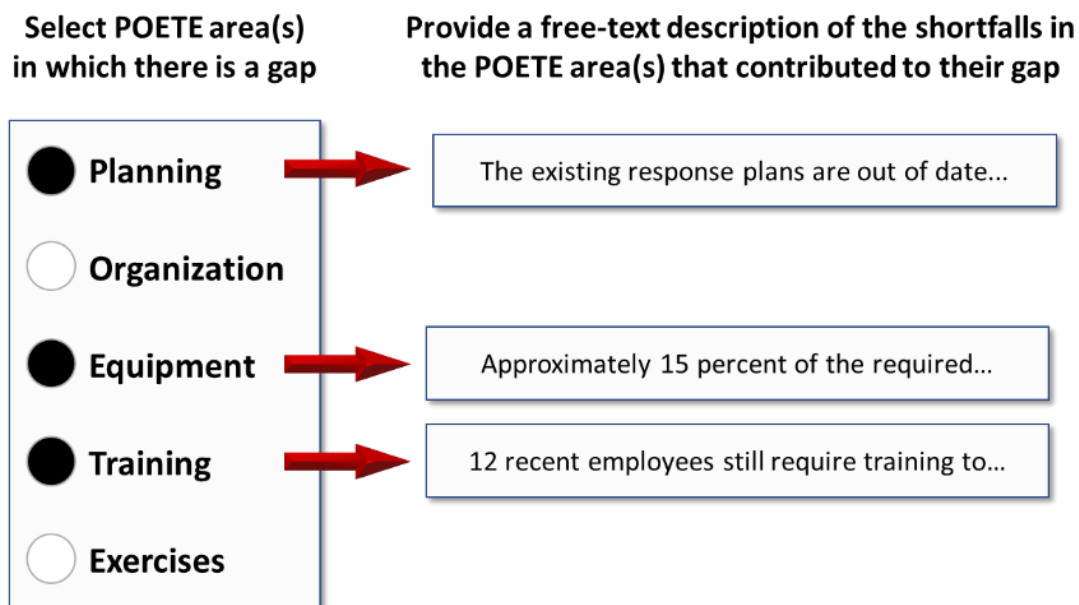
Figure 25: Communities select POETE capability gaps and provide free-text descriptions.

Recognizing that community-specific factors will affect the level of detail available to report, the amount of information and detail that communities provide in free-text descriptions will vary. It is highly recommended, however, that communities provide all the key information that they believe is necessary to fully understand the shortfalls leading to the capability gap. See Table 7 below for an example of how to identify capability gaps for an example Mass Care Services capability target.

Table 7: An example capability gap identification for an example Mass Care Services capability target.

Example Capability Gap Identification	
Capability Target	Within **48 hours** of an incident, provide emergency sheltering for **20,000** residents, including **4,000** with access and functional needs. Maintain sheltering operations for **14 days**.
Current Capability	Within **48 hours** of an incident, provide emergency sheltering for **17,000** residents including **3,000** with access and functional needs. Maintain sheltering operations for **14 days**.
Capability Gap	Within **48 hours** of an incident, provide emergency sheltering for **3,000** residents including **1,000** with access and functional needs. Maintain sheltering operations for **14 days**.
POETE Area	**Free-Text Capability Gap Description**
Planning	Our community has not identified buildings that could be used together to house 20,000 residents. Our housing annex has not been updated in many years and does not include all communities within 1 hour of the affected area. Mutual aid agreements that previously existed with private sector facility owners have lapsed.
Organization	Our community does not have sufficient personnel to maintain six Type I Shelter Management Teams. In addition, the recent restructuring of our Emergency Management and Homeland Security divisions into one agency is very new and has not yet operated during a major disaster.
Equipment	While many rural faith-based institutions are willing to open their doors to be shelters, they lack sufficient bathing facilities. Most are also inaccessible to shelter seekers with access and functional needs.
Training	18 new shelter management team members will need role appropriate training (Type I and II Shelter Managers, Type I Shelter Registration Team Leaders, and Type I Shelter Dormitory Team Leaders). Our community currently lacks the funding and resources to provide this training.
Exercises	Our community has never conducted an exercise that would provide functional experience operating a shelter; the only exercise involving sheltering was a brief tabletop exercise in 2015 which only covered sheltering roles and responsibilities. Further, the private sector and faith-based institutions that are committed to supporting sheltering operations in our community have never been involved in any exercises involving sheltering.

In most cases, the standardized target language will not address the full scope of each core capability. Communities therefore also identify any POETE are gaps related to each capability that the standardized target language does not address. For these gaps, communities do not

include free-text descriptions elaborating on the cause of the capability gaps. Identifying capability gaps across all aspects of the core capabilities can help communities to develop strategic plans and prioritize investments for building and sustaining capabilities.

Step 2.2: Describe Approaches to Address Gaps and Sustainment Needs

Once communities have identified their capability gaps, they identify their intended approaches for addressing the capability gaps or sustainment needs. This information will help communities use SPR results to drive their strategic planning and investment strategies. Communities identify approaches for sustainment or filling the capability gap(s) in the relevant POETE area and then add specific information, including:

- Over what timeframe does this intended approach cover?
- What activities or investments will need to occur to address the existing capability gap or support sustainment?
- What partners may support the efforts?

Due to a variety of factors, including funding, available resources, and personnel, communities cannot always plan to address all capability gaps in any given year. Therefore, communities may not always have an intended approach for addressing every single POETE area gap they identified and described in Step 2.1. Additionally, communities can report plans to address sustainment needs, even if they did not select the POETE area in Step 2.1. See Table 8 below for example plans to address capability gaps and sustain the existing capability for the example Mass Care Services capability target shown above in Table 7.

Table 8: Example approaches to addressing capability gaps and sustainment needs for an example Mass Care Services capability target.

Example Approaches for Addressing Capability Gaps and Sustainment Needs	
POETE Area	**Free-Text Approaches to Address Capability Gaps and Sustainment Needs**
Planning	Engage stakeholders and internal partners to conduct a full review and update of the housing annex to our State Response Plan. Also, assess the current list of facilities available to use as shelters to identify requirements for additional facilities.
Organization	Identify 18 employees willing to serve on a shelter management team as part of our surge capacity force.
Equipment	Our community does not currently intend to address the equipment gap in the next year, due to competing priorities.
Training	Provide appropriate training for four Type I and three Type II Shelter Managers, six Type I Shelter Registration Team Leaders, and five Type I Shelter Dormitory Team Leaders.
Exercises	Include a housing component in our full-scale hurricane response exercise in March.

Once a community has described their intended approaches to building or sustaining their capability, they indicate the general timeframe during which they plan to do so. For example, some communities might want to plan for a single grant cycle, while others might have more general, long-term plans to address their capability gaps and sustainment needs. It is important to note that describing an approach in this section does **not** create an obligation to complete the activity within the identified timeframe. Communities should view it as a resource they can use internally to drive their strategic planning and investment strategies.

Step 3: Describe Impacts of Funding Sources

The purpose of Step 3 of the SPR is to indicate the extent to which relevant funding sources— including but not limited to a community's own resources and Federal and state grants—played a role in building and sustaining the capabilities assessed by the capability targets (see Figure 26). There are two primary elements in Step 3 of the SPR:

- **Step 3.1:** Assess the degree to which specific funding sources had a role in building and sustaining the capability assessed by the target.
- **Step 3.2:** Qualitatively assess how your community used capabilities built and sustained with funding in a real-world incident over the past year.
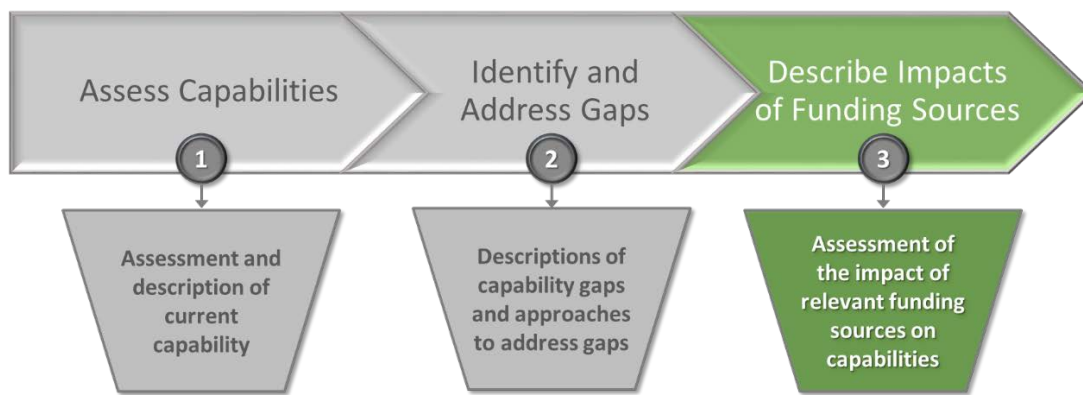

Figure 26: The output of Step 3 of the SPR is an assessment and description of the impact of funding sources on capabilities.

This information can help communities better understand the impact that their funding has on building and sustaining capabilities and to relay that information to key stakeholders and decision-makers.

Step 3.1: Assess the Role of Funding for Building and Sustaining Capabilities

The purpose of Step 3.1 is to estimate the degree to which various funding sources, including but not limited to communities' own resources and Federal and state grants, impacted the building and sustainment of the capabilities assessed by the capability targets.

When answering these questions, communities consider the relevant POETE area activities or resources (including assets with national resource-typed definitions as outlined in NIMS) that they supported with each funding source. Communities should try to estimate, with reasonable accuracy, which efforts and investments relevant to each capability target they funded with each

source. Then, among those efforts and investments, communities identify whether they were used primarily to sustain an existing capability, to build new capability, or both.

A coordinated approach to track investments using different funding sources can help drive investments to be increasingly effective. This enhances communities' ability to understand the return on investment of their funding sources. Identifying the sources of funding for specific, quantitative changes in capability can guide communities' strategic planning considerations and help them make resource allocation decisions to build and sustain capabilities as effectively as possible.

> **Revealing the Entire Picture of Funding Contribution**
>
> Identifying the degree to which different funding sources supported sustainment activities enables communities to identify the impact of their funding, even in those instances where there is no change in capability.
>
> This reveals the entire picture by reflecting the reality that emergency managers are constantly working and making investments to maintain what they have achieved, and are not just building new capabilities.

Step 3.2: Assess the Role of Funding in Real-World Incidents

Finally, communities describe the impact that capabilities built or sustained with different funding sources had in real-world incidents over the past year. This is intended to capture how they used previous years' investments since the last assessment. While this question is concerned with capabilities used over the past year, the funding can be from any year in the past.

Communities attempt to answer the following questions:

- Was the capability used to address a real-world incident? If so, how?
- What would have been the impact on the community's ability to deliver the capability had it not received funding?
- What impact would that change in capability have had on survivors, infrastructure, or the response and recovery mission overall?

Answering these questions enables communities to report positive examples of how they used specific funding sources to increase or sustain preparedness capabilities and make a difference during response to real-world incidents. Communities will also be able to describe how sustainment of their capabilities would be negatively impacted by reduced funding—whether it is the community's own capital, state or Federal grants, or another source—despite reporting no capability built by that funding. This can help communities think strategically about how to spend their money and consider whether they are doing so efficiently.

Conclusion

Understanding the risks faced by communities, and the Nation as a whole, is essential to sustaining and building national preparedness. This document provides a common and consistent approach for communities to support the first two components of the National Preparedness System: 1) *Identifying and Assessing Risk*; and 2) *Estimating Capability Requirements*, as implemented through the THIRA/SPR. It provides a foundation for all levels of government to complete the National Preparedness System by generating actionable data to drive investment strategies through identified planning efforts, organizational and equipment investments, and training and exercise initiatives.

The THIRA/SPR provides a national risk and capability picture from the perspective of the states, territories, urban areas, and tribes. This contributes to achieving the National Preparedness Goal of "a secure and resilient Nation with the capabilities required to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk." Achieving the Goal requires participation at all levels of the community. Through the THIRA/SPR process, communities are better able to educate individuals, families, businesses, organizations, community leaders, and senior officials about the risks they face and their roles in and contributions to prevention, protection, mitigation, response and recovery efforts.

Glossary of Terms

Beginning Capability: The level of capability the community had at the beginning of the year they are assessing.

Capability Assessment: The process of identifying how a community's capabilities have changed over the last year and how those changes affect the community's current capability.

Capability Built: New capabilities that were not operational during the prior year.

Capability Gap: The difference between the capability target a community sets in THIRA Step 3 and the current capability they determine in SPR Step 1.

Capability Lost: Capabilities that a community had as of the previous year's SPR that they no longer have during as of the current year's SPR, due to attrition or degradation.

Capability Sustained: Capabilities that communities have maintained from the previous year.

Capability Target: The level of capability that a community plans to achieve over time in order to manage the threats and hazards it faces.

Context Description: The details about a threat or hazard scenario needed to identify the impacts it will have on a community that includes critical details such as the location, magnitude, and time of an incident.

Core Capabilities: The distinct critical elements necessary to achieve the National Preparedness Goal.

Critical Task: Defined actions that are executed by organizations to deliver the core capabilities.

Cross-Cutting Core Capabilities: The three core capabilities—Planning, Public Information and Warning, and Operational Coordination—that span all five mission areas. They serve to unify the mission areas and, in many ways, are necessary for the success of the remaining core capabilities.

Current Capability: Represents a community's current operational capability that can be used somewhere within the community.

Functional Areas: The broad categories of activity included under a core capability.

Human-Caused Hazard: A potential incident resulting from the intentional actions of an adversary.

Impact: The community-specific effects a threat or hazard scenario would have on a community if the threat or hazard occurred, written in the language of common emergency management metrics.

Internal Capabilities: Capabilities that exist within the boundaries of a community, whether owned by sub-jurisdictions, or private and non-profit organizations. The capabilities should not be from the Federal Government or achieved through interstate mutual aid.

Likelihood: The chance of something happening, whether defined, measured, or estimated objectively or subjectively, or in terms of general descriptors (e.g., rare, unlikely, likely, almost certain), frequencies, or probabilities.

Maximum Requirement: The highest level of potential capability requirement reflecting the impacts of the threat or hazard that most challenges the critical task described in the capability target.

Mission Areas: Categories used to organize the core capabilities and national preparedness activities: Prevention, Protection, Mitigation, Response, and Recovery.

Mitigation Core Capabilities: Reduce the loss of life and property by lessening the impact of future disasters.

Mutual Aid: Agreements that establish the terms under which one party provides resources—personnel, teams, facilities, equipment, and supplies—to another party.

National Preparedness Goal: Defines what it means for the whole community to be prepared for all types of disasters and emergencies. The goal itself is: 'A secure and resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.'

National Preparedness System: Outlines an organized process for everyone in the whole community to move forward with their preparedness activities and achieve the National Preparedness Goal.

Natural Hazard: A potential incident resulting from acts of nature.

POETE Areas: A model that divides capabilities into meaningful, broad categories of activity—planning, organization, equipment, training, and exercises.

Prevention Core Capabilities: Prevent, avoid, or stop an imminent, threatened, or actual act of terrorism.

Protection Core Capabilities: Protect our citizens, residents, visitors, and assets against the greatest threats and hazards in a manner that allows our interests, aspirations, and way of life to thrive.

Recovery Core Capabilities: Recover through a focus on the timely restoration, strengthening, and revitalization of infrastructure, housing, and a sustainable economy, as well as the health, social, cultural, historic, and environmental fabric of communities affected by an incident.

Response Core Capabilities: Respond quickly to save lives; protect property and the environment; and meet basic human needs in the aftermath of an incident.

Risk: The potential for an unwanted outcome resulting from an incident or occurrence, as determined by its likelihood and the associated consequences.

Standardized Target Language: Common, uniform emergency management metrics with blanks for community-specific numbers that are required for all communities to complete; for example: (#) people requiring sheltering.

Technological Hazard: A potential incident resulting from accidents or failures of systems or structures.

Timeframe Metrics: The amount of time or level of effort needed to successfully deliver core capabilities and/or sustain the delivery of the core capabilities.