E/L/K0103: Planning: Emergency Operations

Student Manual

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FEMA

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Unit 1: Welcome

Visual 1: Unit 1: Welcome



E/L/K0103: Planning: Emergency Operations

This unit provides the course overview.

This unit should take approximately 1 hour and 20 minutes to complete.

Topic	Time
Course Overview	3 minutes
Expectations	1 minute
Introductions	30 minutes
Course Structure and Materials	1 minute
IAW Follow-Up	10 minutes
Testing and Evaluation Process	35 minutes
Total Unit Time:	**1 hour, 20 minutes**

Visual 2: Administrative Information

- Emergency exits
- Restrooms
- Pagers and cell phones
- Other logistics





Key Points

Please turn off or silence your cell phones and other electronic devices.

Visual 3: Course Goals

- To promote effective emergency management planning practices
- To understand the emergency management planning process



Visual 4: Course Objectives

- Explain the relationships among preparedness, Threat and Hazard Identification and Risk Assessment (THIRA), Stakeholder Preparedness Review (SPR), and emergency operations planning
- Identify the steps in the emergency planning process and the expected outcomes
- Describe the purpose and components of an emergency operations plan
- Apply the emergency planning principles and process in evaluating an emergency operations plan

Visual 5: Our Expectations

- Punctuality
- Participation
- Positive Attitude
- Professionalism
- Flexibility
- Commitment



Visual 6: Introductions



- Name
- Position and organization
- Prior experience with emergency operations planning
- Training expectations

Visual 7: Course Structure

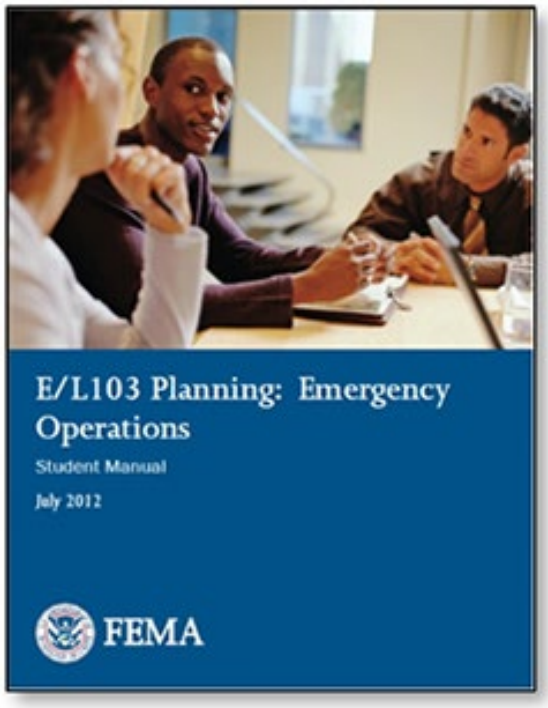
- Unit 1: Welcome
- Unit 2: Planning Overview
- Unit 3: Threat and Hazard Identification and Risk Assessment and Stakeholder Preparedness Review
- Unit 4: The Planning Process
- Unit 5: Emergency Operations Planning Activity

Key Points

This course divides into five units.

Visual 8: Course Materials and Resources

- Student Manual
- Individual Action Workbook (IAW)
- CPG 101: Developing and Maintaining Emergency Operations Plans
- CPG 201: Threat and Hazard Identification and Risk Assessment
- Exercise Simulation System Document (ESSD)



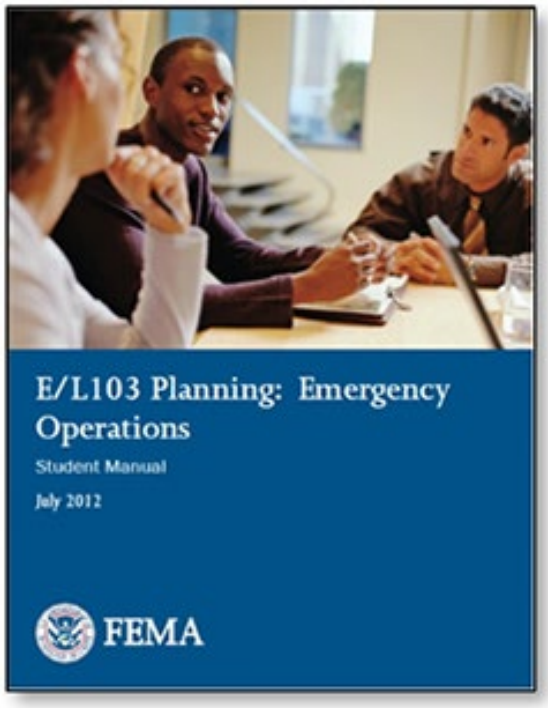
Key Points

Each student should have a Student Manual and an Individual Action Workbook (IAW).

- The Student Manual contains copies of visuals, content notes, job aids, and worksheets for the course activities.
- The IAW provides a place for the student to record action steps to become an active participant in his or her jurisdiction's planning process and to record actions to be taken after the training.
- Digital copies of Comprehensive Planning Guide (CPG) 101 – Developing and Maintaining Emergency Operations Plans, CPG 201 – Threat and Hazard Identification and Risk Assessment, and activity materials will also be provided.

Visual 9: IAW Follow-Up

- Have you completed or made progress in the tasks you identified for your community? Provide examples.
- For information that you did not know during class, what methods did you use to find the information?
- Have you met with your identified mentor since E/L/K0101 or E/L/K102? How has that person continued to help you grow in the emergency management profession?



Key Points

Based on the topics, issues, activities, and priorities you identified in E/L/K0101: Foundations in Emergency Management and the E/L/K0102: Science of Disaster courses, discuss the following:

1. Have you completed or made progress in the tasks you identified for your community? Provide examples.
2. For information that you did not know during class, what methods did you use to find the information?
3. Have you met with your identified mentor since E/L/K0101? How has that person continued to help you grow in the emergency management profession?

Visual 10: Testing and Evaluation Process

- Pre-assessment (no grade)
- Post-assessment
  - 75% or better passing grade
- Participation:
  - Daily attendance, participation, and interactions
  - Individual Action Workbook (IAW)

Key Points

The course will contain several graded and ungraded testing and evaluation opportunities.

There will be a total of two assessments—a pre-assessment and a post-assessment. The pre-assessment will not count towards the score to pass the class.

You are required to score a minimum of 75% on the post-assessment.

In addition to the required minimum score on the post-assessment, you will also be required to be an active participant in the class. Instructors will be observing:

Daily attendance and interactions in the class
Completion of Individual Action Workbook (IAW) activities

Visual 11: Pre-Assessment

Instructions: Working individually

1. Tear the pre-assessment answer sheet off the assessment packet. Use this sheet to record your answers.
2. Once you have completed the assessment, turn it in to the instructors.
3. You have 30 minutes to complete the pre-assessment.

Unit 2: Planning Overview

Visual 1: Unit 2: Planning Overview

Unit 2: Planning Overview



Key Points

This unit provides the big picture of planning and where emergency operations planning fits in to the planning spectrum.

Topic	Time
Unit Introduction Case Study: New Madrid (Visual 1.2)	25 minutes
Planning and Preparedness	30 minutes
Planning Architecture Activity 2.1 – Types of Plans (Visual 20)	25 minutes
Plan Integration Activity 2.2 – Plan Integration (Visual 24)	25 minutes
Planning Principles	5 minutes
Planning Guidance	5 minutes

Topic	Time
Emergency Planning	5 minutes
Unit Summary	5 minutes
Total Unit Time:	**2 hours, 5 minutes**

Visual 2: Case Study: New Madrid

Case Study: New Madrid (https://youtu.be/3MKMVYYZUr0)

Key Points

In the winter of 1811-1812, the area around what is now New Madrid, MO (then a part of the Louisiana Territory) was rocked by a series of 4 large earthquakes (ranging from 7.5-7.9) and aftershocks for a period of about 6 months. These earthquakes remain the most powerful in the United States east of the Rocky Mountains and were felt strongly over an area of about 130,000 square kilometers (50,000 sq. miles).

Case Study: New Madrid Video Transcript

For the simple folk who populated the Mississippi river valley, life on the frontier was quiet, for the most part. Uneventful (you count) that is until one dark night that would literally shake the country's middle right down to its foundation. It was early morning on December sixteenth witching hours some would call it. About two am when the first violent tremor struck close to the New Madrid area. Startling those on land.

Eliza Byran said we were visited by a violent shock of an earthquake accompanied by a very awful noise resembling loud but distant thunder but more hoarse and vibrating, which was followed in a few minutes by the complete saturation of the atmosphere with sulfurous vapor causing total darkness. And on the water…Mathias Speed said we were afraid it was the appearance of a dreadful rapid or falls in the river just below us. We were so far in the sump that it was impossible now to land. All hope of surviving was now lost, and certain destruction appeared to await us.

It was the first salvo in a series of earthquakes that would shake the central and eastern U.S. for the next six months. John Bardbury said in the night, I was awakened by a most tremendous noise accompanied by an agitation to vote so violent that it appeared in danger of ascending. Firmin La Roache said everywhere there was noise like thunder and the ground was shaking the trees down and the air was thick with something like smoke. There was much lightning. We believed we must surely die.

The initial shock, about seven point seven on the Richter scale, struck near the town of New Madrid. In the immediate area settlers were thrown from their beds as timbers crashed down and chimneys crumbled to dust. Glass exploded and shattered. Barns and fences collapsed as fire consumed many buildings. The Mississippi river was muddied by tons of earth from dislodged banks sliding into her swift currents. Vincent Nolte said the Mississippi foamed up like the water in a boiling caldron and the stream flowed rushing back while the forest trees near which we lay came crackling and thundering down. All told four major shocks hit the central United States over a period of several weeks.

The initial shock at two fifteen a.m. on December sixteenth was followed by another large one about eight that morning. Then on January twenty-third a third large tremor struck as big as the

first two. This was followed by a fourth huge quake on February seventh probably the largest of the bunch. In-between these big shocks and for months after, the area was shaken by almost constant smaller aftershocks. Gary Patterson said an engineer in Kentucky named Jared Brooks set up after he felt the first earthquake in December eighteen eleven set up a crude pendulum seismograph and over a period of six months he recorded about eighteen hundred earthquakes that were probably large enough to be felt. So accounting for the tremors he might have missed, we are talking about well over two thousand possible earthquakes to rattle the distinct of New Madrid beginning on December sixteenth eighteen eleven.

What happened in eighteen eleven was not a freak occurrence…a one-time anomaly. Doctor Chris Cramer said paleo old lymphoma faction features that have been dated and show that earthquakes in the last couple thousand years have repeated on average about every five hundred years. The central U.S. has been shaken by large seismic events throughout history. Most notably in the years five hundred, nine hundred, and fourteen fifty. Since the huge sequence two hundred years ago, scientists have come to realize that what we have here is a very active system. One which takes its name from the frontier town on the Mississippi the New Madrid seismic zone. Jim Wilkinson said it runs from about thirty five miles northwest of Memphis all the way up to southern Illinois. It is made up of three separate fault systems. Unlike the western part of the country where you can see the fault, ours is too deeply buried. So it is really a look from what the instruments tell us as to where the fault really lies, but it covers a very large area. The New Madrid seismic zone lies almost in the center of the country. Running in a jagged line from Cairo Illinois to Marked Tree Arkansas about thirty miles northwest of Memphis. The zone itself encompasses an eight state region. Eight states and potentially twelve million people who could suffer the consequences of a large quake. A magnitude seven to seven and half type event we would expect to impact at least eight states. Dramatically affecting seven of those states that fall along the Mississippi river. The outlying states of Alabama, Indiana, Illinois some of those states would see less damage than you would see in the central part of the fault system.

To some, the threat of an earthquake to our heartland may come as a surprise. We are familiar with those which strike the western U.S. which has been shaken many times in the last century. The San Francisco earthquake of nineteen oh six caused much damage and a fire that almost destroyed the city. In nineteen eighty nine, a six point nine struck the San Francisco Bay area. Sixty-three people died and thousands were left homeless. A nineteen ninety four Northridge earthquake had a magnitude of six point seven. It killed sixty and caused twenty billion dollars in damage. So why are earthquakes more common on the west coast? The earth's crust is made up of plates that fit together like a jig-saw puzzle. The constant shifting of superheated rock inside the earth generates and stores energy which presses upward against the boundaries of these tectonic plates which are known as rifts or faults.

Doctor Chris Cramer said basically, it's when part of the earth's crust is moving past another part on a surface usually that we call a fault. And when it slips quickly, it generates seismic waves that are felt by people.

When this slippage occurs, the seams snap like a rubber band, resulting in an earthquake. And even though there appears to be no good reason for seismic activity in the central U.S., Doctor Charles Langston said we have at least two hundred small earthquakes, less than magnitude four, occur each year. Umm, it seems to be occurring at a constant rate.

We have a large earthquake today in Southern California when its barely felt two hundred fifty miles away in Las Vegas. Whereas its proposed a large earthquake that occurred here in the central U.S. two hundred years, were felt twelve hundred miles away in Canada.

In the quakes of eighteen eleven and twelve, there wasn't much actual damage due to the sparse population in the central US. However, the effects were felt all across the country. The tremors even ringing church bells in Charleston. Doctor Kent Moran said it rang for a period of about ten seconds and people came up to the church and asked, "Is there a fire?" Because the fire watch was in the steeple at the time and the gentlemen replied, "No it had not. The bell rang by itself."

Scientists believe that the very feature that makes the New Madrid zone so unusual is responsible for the enormous power of its earthquakes. If it's true that what's past is indeed prologue then, the New Madrid earthquakes could be dire portents.

A major seismic event would be vastly more destructive than two hundred years ago. Computer projections indicate that over an eight-state region, a seven point seven magnitude earthquake could result in almost ninety thousand injuries and deaths and over three hundred billion dollars in economic losses. A threat which Emergency Managers are taking very seriously.

James Bassham said we expect to have an awful lot of flooding, a lot of property damage, a lot of buildings down, a lot of people needing shelters, a lot of people needing rescue… It would be a catastrophic event for Tennessee. Which means a major interruption of communications and transportation. Urban infrastructure will be severely damaged with wide spread power and water outages, as well as ruptured gas lines.

James Bassham said we expect we will have a number of bridges out and a number of overpasses down, there will be a lot of fire, and there will be lot of fire that burns until the fire goes out. Probably won't be much water pressure, our conventional way of fighting fire will probably go by the wayside.

A large earthquake in the central U.S. is considered to be a high impact, low probability event. Which would be felt not just regionally, but globally. But the question remains, how likely is it that the New Madrid seismic zone will experience a catastrophic quake in our lifetime.

Doctor Chris Cramer said the probabilities of a repeat of the New Madrid earthquakes of eighteen eleven eighteen twelve is seven to ten percent in the next fifty years. A magnitude six and greater, the probabilities are a little larger for a fifty year period, and that is twenty five to forty percent.

The quakes of eighteen eleven eighteen twelve are now a distant part of our historical record, however on the afternoon of August twenty third, two thousand eleven, a magnitude five point eight earthquake struck the state of Virginia, about eighty miles from Washington DC. Many structures were damaged in the nation's capital and tremors from this relatively small quake were felt all over the eastern US.

It was felt seven hundred miles away in Chicago, it was felt in Minneapolis, it was felt in Memphis, Tennessee, and Atlanta. Hundreds and hundreds miles away. Doctor Charles Langston said that is direct evidence on how well the seismic plates can propagate in the crust in this area. Which just goes to further the respect and curiosity scientists have for potential earthquakes in the central United States.

Gary Patterson said at the end of day for New Madrid seismic zone, we are uncertain about a lot of things. But what we know is that large earthquakes have happened here repeatedly in the past

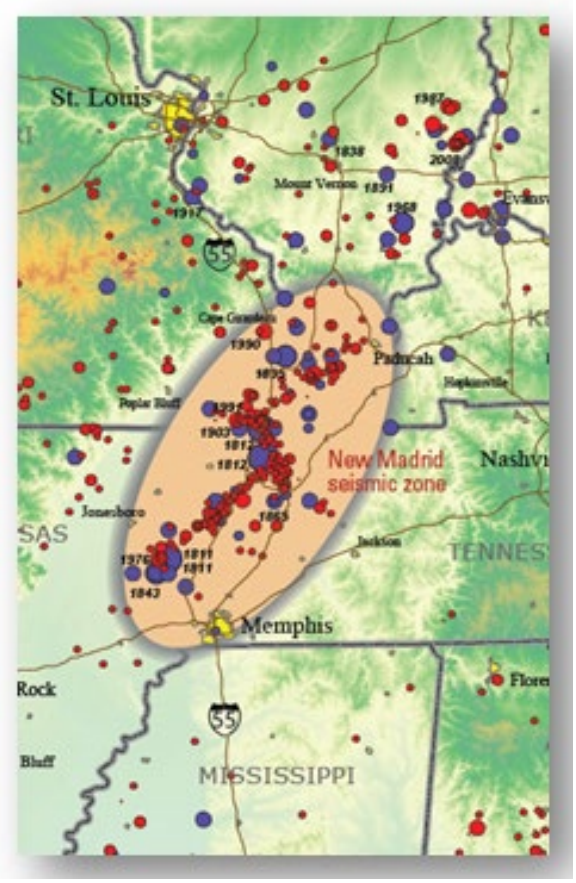
that were really big and that could really happen again in the future. Many questions remain unanswered when it comes to the New Madrid seismic zone, but most agree that a large earthquake when it occurs will be sudden and it will be disastrous.

Visual 3: Case Study: Discussion

If you were an emergency manager in TN, what actions (if any) do you need to take to address the New Madrid Seismic Zone?

Visual 4: NMSZ Planning

- Contributes to achieving the National Preparedness Goal
- Integrates planning efforts of the whole community
- Provides a layered approach for synchronized planning at all levels
- Provides interdependent guides and processes spanning the five mission areas



Key Points

As part of FEMA's Catastrophic Disaster Planning Initiative, FEMA is working with the eight states (Alabama, Arkansas, Illinois, Indiana, Kentucky, Missouri, Mississippi, and Tennessee) of the New Madrid Seismic Zone (NMSZ) in the central United States to develop catastrophic earthquake disaster response plans. The initiative, known as the NMSZ Catastrophic Earthquake Disaster Response Planning Initiative, involves partnerships and collaboration with hundreds of government agencies, business, industry, voluntary organizations, scientific institutions, and academic institutions.

The NMSZ collaborative planning is designed to identify high risk areas, assess current disaster response capabilities, identify anticipated response shortfalls, and develop comprehensive planning strategies in the eight NMSZ States. The emphasis is on building Local and State capabilities that are integrated with federal capabilities.

The initial phase of the initiative uses scenario-driven workshops in the NMSZ States and Local level tabletop exercises. Workshop participants include operational and planning personnel from all levels of government and the private and academic sectors. State and Local participants include emergency services coordinators, emergency management staff, county emergency

managers, State and Local law enforcement, fire and emergency medical personnel, public works, and public health personnel. FEMA Headquarters, four FEMA Regions, the U.S. Geological Survey (USGS), the U.S. Department of Health and Human Services (HHS), the U.S. Army Corps of Engineers (USACE), U.S. Northern Command (NORTHCOM), the American Red Cross, and more than 200 local governments are participating in the initiative.

Link Broken: Additional information is on the NMSZ Catastrophic Earthquake Disaster Response Planning Initiation (https://www.fema.gov/pdf/media/factsheets/2010/dod_cat_earthquaker.pdf)

Discussion Question: Has anyone participated in any of the initiatives' activities?

Visual 5: Unit Objectives

- Explain how planning relates to preparedness
- Discuss the National Planning System and the planning architecture
- Describe key principles of emergency planning



Key Points

Review the objectives for this unit.

Visual 6: National Preparedness



Key Points

Job Aid 1: Preparedness and Planning

Presidential Policy Directive 8 (PPD-8) describes the Nation's approach to national preparedness. By doing so, PPD-8 links together national preparedness efforts using the following key elements:

National Preparedness System (how we get there)
National Planning System (what we deliver)—a series of National Frameworks and Federal Interagency Operational Plans (FIOPs)
Annual National Preparedness Report (how well we are doing)
Whole Community Initiative (whom we engage)—a campaign to build and sustain preparedness

National preparedness is a shared responsibility. The PPD is designed to facilitate an integrated, all-of-nation/whole community, capabilities-based approach to preparedness. Involving the whole community—Federal partners; State, Local, and Tribal leaders; the private sector; nongovernmental organizations; community groups, including disability services and advocacy organizations and private-sector programs; and most importantly, the general public—is vital to keeping people and communities safe and preventing the loss of life and property when disasters strike.

Additional information on each of these preparedness elements can be found at the following National Preparedness FEMA web page (https://www.fema.gov/national-preparedness-system).

National Preparedness Goal

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.

Job Aid 1: Preparedness and Planning

How the Pieces Fit Together



Mission Areas and Core Capabilities



Mission Areas

Mission areas are composed of the capabilities required for achieving the function at any time (before, during, or after an incident) and across all threats and hazards. The five mission areas include:

Prevention: The capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism. As defined by PPD-8, the term "prevention" refers to preventing imminent threats
Protection: The capabilities necessary to secure the homeland against acts of terrorism and man-made or natural disasters
Mitigation: The capabilities necessary to reduce loss of life and property by lessening the impact of disasters
Response: The capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred
Recovery: The capabilities necessary to assist communities affected by an incident to recover effectively

Core Capabilities

Core capabilities are:

Distinct critical elements necessary to meet the National Preparedness Goal
Essential for the execution of each mission area
Developed and sustained through the combined efforts of the whole community

Core Capabilities by Mission Area

Planning

Public Information and Warning

Operational Coordination

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

Visual 7: National Preparedness Goal

National Preparedness Goal:

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

Key Points

The National Preparedness Goal (NPG), released in 2011 in response to PPD-8, defines preparedness success as:

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.

Note that the National Preparedness Goal describes security and resilience in terms of **core capabilities** within each of the mission areas that are necessary to deal with great risks.

Visual 8: National Preparedness System

Achieving the Preparedness Goal



Key Points

The National Preparedness System (NPS) provides the means for achieving the National Preparedness Goal. The National Preparedness System has six major components:

- Identifying and Assessing Risk
- Estimating Capability Requirements
- Building and Sustaining Capabilities
- Planning to Deliver Capabilities
- Validating Capabilities
- Reviewing and Updating

Job Aid 2: National Preparedness System Components

Job Aid 2: National Preparedness System Components



If the National Preparedness Goal is the "what," the National Preparedness System is the "how."

The National Preparedness System (NPS) builds on current efforts, many of which are established in the Post-Katrina Emergency Management Reform Act and other statutes.

Through the implementation of the NPS, these efforts will be integrated to be more efficient and effective, supporting our Nation's ability to confront any threat or hazard.

There are six components in the NPS:

Identifying and Assessing Risk
Developing and maintaining an understanding of the variety of risks faced by communities and the Nation, and how this information can be used to build and sustain preparedness, are essential components of the National Preparedness System. A risk assessment collects information regarding the threats and hazards, including the projected consequences or impacts.

Estimating Capability Requirements
To fully understand capability requirements, each community, organization, and level of government must consider single threats or hazards as well as the full range of risks they may face. Using the results from a risk assessment in the context of the desired outcome(s) for each mission area, the required types and levels of capability can be estimated.

Building and Sustaining Capabilities
After completing the estimation process, existing and needed capabilities can be analyzed and gaps identified. These gaps can be prioritized based on a combination of the desired outcomes, risk assessments, and the potential effects of not addressing the gaps. Working together, planners, government officials, and elected leaders can develop strategies to allocate resources effectively, as well as leverage available assistance to reduce risk. These strategies consider how to both sustain current levels of capability and address gaps to achieve the National Preparedness Goal.

Planning to Deliver Capabilities
The whole community contributes to reducing the Nation's risks. Planning for low-probability, high-consequence risks—such as a terrorist attack with nuclear or biological weapons or a catastrophic earthquake affecting multiple jurisdictions—will be a complex undertaking and involve many partners. Federal efforts, therefore, must complement planning at other levels of government, which is often focused on more likely risks. These shared planning efforts form a

National Planning System by which the whole community can think through potential crises, determine capability requirements, and address the collective risk identified during the risk assessment process.

Validating Capabilities

Measuring progress toward achieving the National Preparedness Goal will provide the means to decide how and where to allocate scarce resources and prioritize preparedness. This validation process can be done through exercises, remedial action management programs, and assessments.

Reviewing and Updating

The Nation's security and resilience will be strengthened as it employs the components of the National Preparedness System. Changes in a community's exposure and sensitivity can and do occur, whether from evolving threats and hazards, aging infrastructure, shifts in population, or changes in the natural environment. On a recurring basis, capabilities, resources, and plans should be reviewed to determine if they remain relevant or need to be updated.

Visual 9: Mission Areas and Core Capabilities

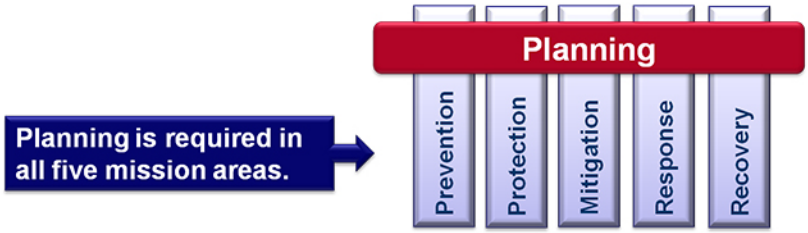


Key Points

The National Preparedness Goal establishes core capabilities across five mission areas: Prevention, Protection, Mitigation, Response, and Recovery.

Visual 10: Core Capability: Planning

Definition: The capability to conduct a systematic process engaging the whole community, as appropriate, in the development of executable strategic, operational, and/or community-based approaches to meet defined objectives



Key Points

The National Preparedness Goal defines the planning core capability as the ability to "conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or community-based approaches to meet defined objectives."

As mentioned before, not only is Planning a core capability that is required across all five mission areas, but it is also one of the major components of the National Preparedness System for Prevention, Protection, Mitigation, Response, and Recovery.

Visual 11: Capability-Based Preparedness Paradigm

Preparedness = Building and sustaining core capabilities

- Core capabilities are what you need to build and sustain to have a safe and resilient community
- Achieving these capabilities:
    - Is essential for preparedness
    - Requires the combined efforts of the whole community
    - Requires planning

Key Points

It is important to recognize the paradigm shift that has occurred in the concept of preparedness. Preparedness results from building and sustaining core capabilities in all five mission areas. The core capabilities are distinct critical elements necessary to meet the National Preparedness Goal.

Core capabilities are what you need to build and sustain to have a safe and resilient community

Achieving these capabilities:

- Is essential for preparedness
- Requires the combined efforts of the whole community
- Leads to safe and resilient communities
- Requires planning

Visual 12: National Planning System

- Contributes to achieving the National Preparedness Goal
- Integrates planning efforts of the whole community
- Provides a layered approach for synchronized planning at all levels
- Provides interdependent guides and processes spanning the five mission areas



Key Points

The National Planning System provides a unified approach and common terminology to plan for all threats and hazards across the five mission areas. It integrates the current planning efforts of the whole community, at all levels, by providing interrelated and interdependent guides and processes that:

- Apply across the whole community and contribute to achieving the National Preparedness Goal
- Provide a common and layered approach for synchronized planning at all levels
- Establish critical links that span across the five mission areas

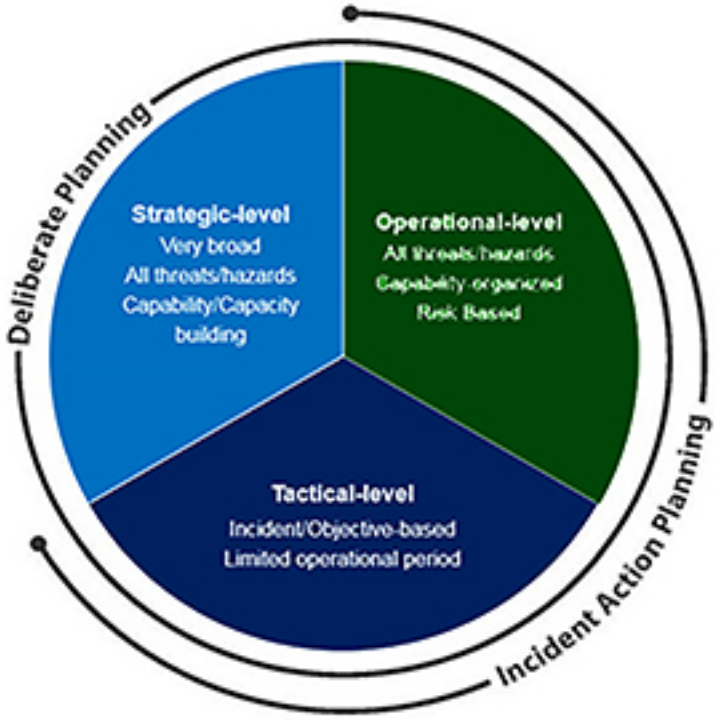
The National Planning System incorporates:

- National Planning Frameworks for the five mission areas
- Federal Interagency Operational Plans (FIOPS)
- Regional, State, Tribal, and Territorial plans
- Jurisdictional mitigation, emergency operations, recovery, and continuity of operations (COOP) plans
- Individual, household, and business plans

Job Aid 3: National Planning System Fact Sheet

FEMA National Planning System fact sheet (https://www.fema.gov/sites/default/files/2020-04/National_Planning_System_20151029.pdf)

Visual 13: Planning Architecture



Key Points

There are three tiers of planning:

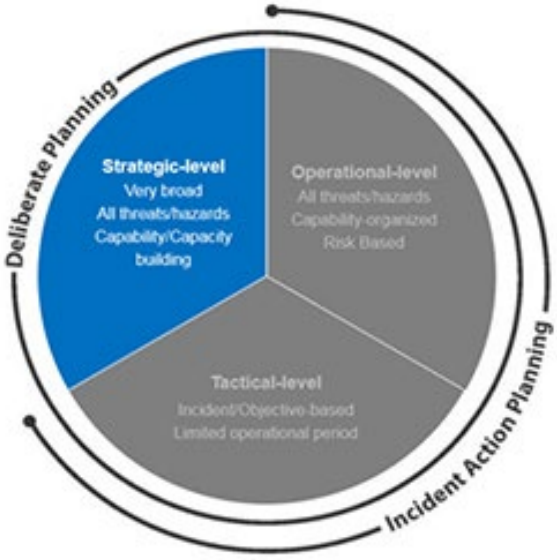
- **Strategic-level** planning sets the context and expectations for operational planning. Very broad, all threats/hazards, capability/capacity building.
- **Operational-level** planning provides the tasks and resources needed to execute the strategy. All threats/hazards, capability-organized, risk based.
- **Tactical-level** planning shows how to apply resources to complete the operational tasks within a given timeframe. Incident/Objective-based, Limited operational period.

The three levels of planning generally fall into two categories:

- **Deliberate planning** involves developing plans to prevent, protect against, and mitigate the effects of, respond to, and recover from threats or hazards.
- **Incident Action planning** involves developing rapidly adaptable operational and tactical plans in response to an imminent or ongoing incident.

Visual 14: Strategic Level

- Provides framework for guiding homeland security activities
- Focuses on longer-term efforts
- Mechanism for unifying efforts of multiple organizations or components to support a comprehensive approach
- Results provide a foundation for policy, operational planning, and resource decisions



Key Points

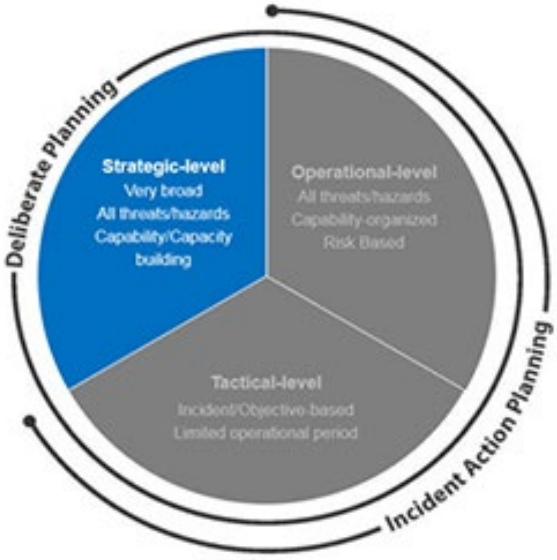
Strategic-level planning provides a framework for guiding homeland security activities. This level of planning allows stakeholders the opportunity to focus on the longer-term and articulate, monitor, and evaluate efforts to prevent, protect against, mitigate, respond to, and recover from all threats and hazards that might affect a jurisdiction or an organization.

Strategic-level planning is also a mechanism for unifying the efforts of multiple organizations or components of an organization in support of a comprehensive and effective approach to homeland security.

Elected or appointed officials of a jurisdiction or organization play a critical role by providing the vision and priorities for the planning process. The results of this planning provide a foundation for policy, operational planning, and resource decisions.

Visual 15: Strategic-Level Examples

- National: National Cohesive Wildland Fire Management Strategy
- State: Maryland Preparedness Strategic Plan
- Local: Hazard Mitigation Strategy



Key Points

National Strategies: These plans identify a national vision for a specific threat or hazard. They typically establish national-level goals, objectives, and potential challenges while establishing national priorities to achieve the desired goals.

> As an example, the **National Cohesive Wildland Fire Management Strategy** outlines new approaches to coordinate and integrate efforts to prepare communities for fire season and better address the Nation's wildland fire threats.

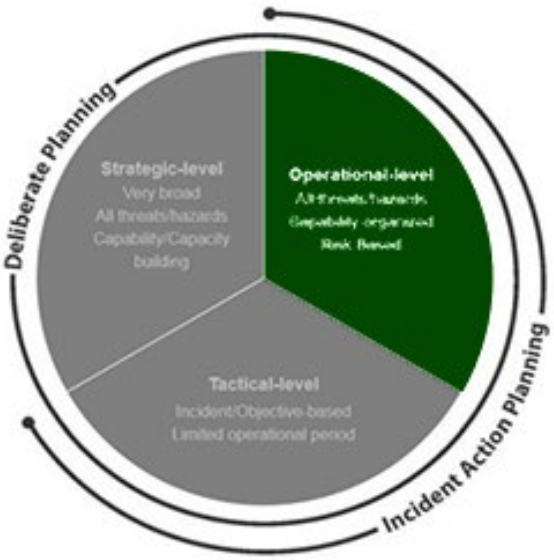
State Homeland Security Strategy: These plans establish the priorities and processes by which a State will build, sustain, and prepare to deliver the core capabilities identified in the National Preparedness Goal. Leadership intent, policy and legal requirements, and an understanding of risk drive these priorities.

> As an example, the **Maryland Emergency Preparedness Strategic Plan** presents the State's strategy for emergency preparedness and describes the Maryland Emergency Preparedness Program.

Local Hazard Mitigation Strategy: These plans establish a community's strategy for addressing risk and reducing losses based on Local vulnerability analyses and risk assessments, such as the Hazards Identification and Risk Assessment (HIRA). These plans describe mitigation goals and objectives and identify existing and necessary capabilities and resources to support the goals.

Visual 16: Operational Level

- Influenced by objectives and priorities of strategic-level plans
- Describe roles and responsibilities, tasks, integration requirements, actions, and other expectations
- May also address delivery of capabilities in support of steady-state activities



Key Points

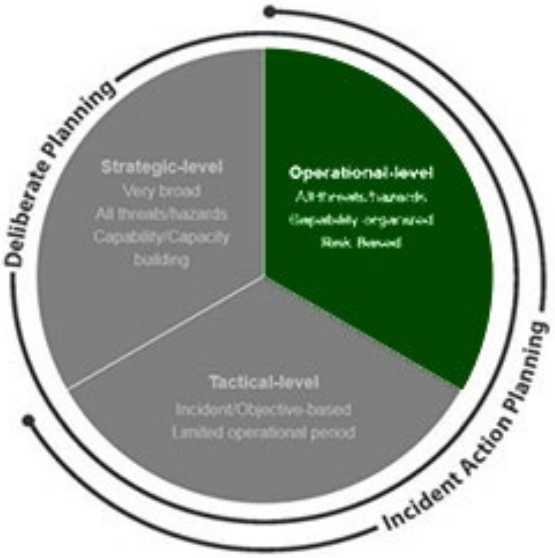
Operational-level planning is influenced by the objectives and priorities identified through strategic-level planning and an understanding of the risks that affect an organization or jurisdiction.

Operational plans describe roles and responsibilities, tasks, integration requirements, actions, and other expectations of an organization or jurisdiction during actual or potential incidents. These plans may also address the delivery of capabilities in support of steady-state activities (e.g., risk management plans and physical security plans).

Operational plans may include the coordination and integration of activities and resources from other departments, agencies, and organizations within a jurisdiction and across the whole community.

Visual 17: Operational-Level Examples

- National: Mitigation FIOP
- State/Local: Emergency Operations Plans
- Pre-disaster Recovery Plans
- Nongovernmental and Private-Sector Organization Plans
- Individual and Family Plans



Key Points

Federal Interagency Operational Plans (FIOPs): The FIOPs describe the Federal Government's concept of operations for each mission area, including how the Federal Government supports Local, State, Tribal, Territorial, and Insular Area plans. Federal interagency plans may also exist to address risks for a particular region, sector, or function. For example, the **Mitigation FIOP** describes the concept of operations for integrating and synchronizing existing national-level Federal capabilities to support Local, State, Tribal, Territorial, Insular Area, and Federal plans.

Local, State, Tribal, Territorial, and Insular Area Mitigation Plans: Mitigation plans developed at the Local, State, Tribal, Territorial, and Insular Area government levels identify the natural hazards that affect a geographical area or individual jurisdiction. These plans identify policies and actions that an organization can implement over the long term to reduce risk and future losses.

State/Local EOPs: EOPs are plans for managing a wide variety of potential threats and hazards. These plans detail who is responsible for carrying out specific actions; identify personnel, equipment, facilities, supplies, and other resources available; and outline how actions will be coordinated.

Pre-disaster Recovery Plans: Businesses, communities, and governments develop pre-disaster recovery plans to establish priorities, set roles and expectations, and coordinate resources to assist the timely restoration, strengthening, and revitalization of assets and services following a disaster.

Nongovernmental and Private-Sector Organization Plans: Nongovernmental and private-sector plans describe how an organization will respond to disasters and emergencies (e.g., shelter-in-place plans and business continuity plans). Ready Business—an extension of the

Ready campaign—provides guidance for the development, implementation, and sustainment of all-threats and hazards plans for businesses.

Individual and Family Plans: Individuals and families need to engage in planning processes as well. Individuals and families should identify threats and hazards that have occurred or could occur in their area and plan for the unique actions needed for each. These plans can include how to get to a safe place, how to contact one another, and how the family reunites following a disaster.

Visual 18: Tactical Level

- Focuses on managing resources—personnel, equipment—during an incident or event
- Can integrate capabilities of multiple stakeholders
- Pre-incident tactical plans
- Real-time tactical plans



Key Points

Tactical plans focus on managing resources such as personnel and equipment that play a direct role in an incident or event. Tactical plans can integrate the capabilities and resources of multiple stakeholders.

Pre-incident tactical planning, based upon existing operational plans, provides the opportunity to pre-identify personnel, equipment, and other execution needs. Tactical plans often outline the detailed actions necessary to accomplish goals identified in an operational plan.

Real-time tactical planning occurs in the short-term or immediate operational period and takes into account the circumstances of an actual incident, risk, or threat.

Visual 19: Tactical-Level Examples

- Special Events Planning
- Incident Action Plan (IAP)



Key Points

An example of this type of planning occurs for special events or venues, wherein planners determine resource assignments, routes, and staging for potential incidents in advance. Planning teams then fill identified gaps through various means, such as mutual aid.

One example of tactical planning in real-time is the development of an Incident Action Plan (IAP) to support response activities. The incident action planning process is time-constrained and happens as an incident unfolds to execute specific actions and to direct resources. The IAP may include a comprehensive listing of the actions, resources, and support needed to accomplish each incident objective over a single operational period.

Visual 20: Activity 2.1 – Types of Plans

Instructions: Working individually…

1. For each plan category, identify three examples of plans used in your jurisdiction (three strategic, three operational, and three tactical plans)
2. Record your answers in the IAW
3. Be prepared to share your answers with the class



Key Points

Purpose: The purpose of this activity is to identify examples of plans for each category.

Instructions: Working individually:

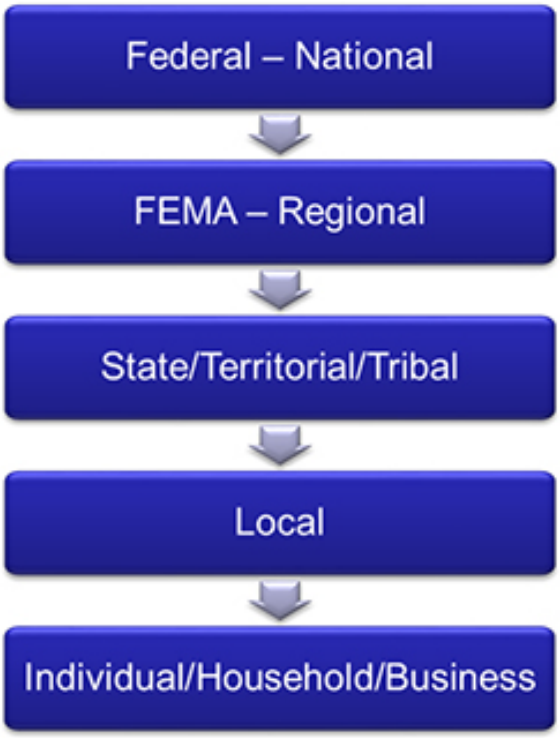
1. Identify three plans you create in your jurisdictions that fall into each category (strategic, operational, and tactical).
2. Record your answers in the Individual Action Workbook (IAW).
3. Be prepared to share your answers with the class.

Visual 21: Plan Integration

The intent of the National Planning System is vertical and horizontal plan integration

Vertical Integration:

- Promotes complementary goals and strategies
- Reduces fragmentation
- Ensures a common focus



Key Points

The intent of the National Planning System is vertical and horizontal plan integration. Let's look first at vertical integration.

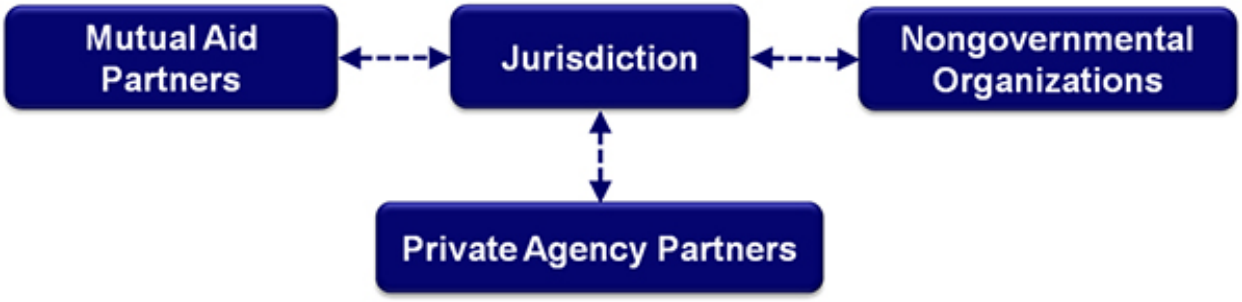
Vertical integration is the meshing of planning both up and down the various levels of government. Jurisdictions' plans should be coordinated and integrated among all levels of government and with critical infrastructure planning efforts. Planning must be vertically integrated to ensure that all response levels have a common operational focus. It promotes complementary goals and strategies while reducing fragmentation as well.

The foundation for operations is at the Local level, and support from Federal, State, Territorial, Tribal, Regional, and private-sector entities is layered onto the Local activities. As a planning team identifies a support requirement from a "higher level" during the planning process, the two levels work together to resolve the situation.

Visual 22: Plan Integration (Continued)

Horizontal Integration:

- Fosters cooperation and teamwork
- Integrates operations across a jurisdiction
- Ensures plans will be in sync with neighboring jurisdictions



Key Points

Planners at each level must ensure that department and supporting agency plans fit into their jurisdiction's concept of operations through **horizontal integration.**

Horizontal integration integrates operations across a jurisdiction. For example, a jurisdiction's plan should include information about mission assignments that it executes in conjunction with, in support of, or with support from its neighbors or partners. An agency, department, or sector would write its plan or standard operating procedures/guidelines (SOPs/SOGs) for its role in an evacuation to fit the controlling jurisdiction's plan for such an evacuation.

Horizontal integration:

- Fosters cooperation and teamwork. It allows departments and support agencies to produce plans that meet their internal needs or regulatory requirements and still integrate into the EOP.
- Ensures that a jurisdiction's set of plans supports its neighboring or partner jurisdictions' similar sets of plans.

Visual 23: Plan Integration Example

Natural Disaster Planning

- Household and Family Plans
- Local and Community Emergency Plans
- Private-Sector and Business Plans
- Nongovernmental Organization Plans
- State EOPs
- National Planning Frameworks

Key Points

Planning for natural disasters provides an example of how family, household, community, private-sector, Local, State, and Federal plans integrate into a planning system. This example demonstrates the need for a coordinated and integrated National Planning System.

Household and Family Plans. These plans should include steps on how the family will communicate during disasters and how to ensure that all family members will be located, reunited, and protected. These plans are dependent on Local emergency planners to provide information on the types of natural disasters that the area is prone to, and the steps to take to evacuate or shelter-in-place.

Local and Community Emergency Plans. These plans typically identify types of natural disasters that an area is prone to and steps a community will take to communicate with, evacuate, or shelter-in-place the public. However, these plans may be dependent on private-sector support (e.g., media and Local retail businesses), the nongovernmental organization sector (e.g., Local religious organizations), and State and Federal agencies during response to significant disasters.

Private-Sector and Business Plans. These plans need to include steps on how to protect workers during a disaster and how the business will continue during and after the disaster. The plans also need to identify what resources and services the organization depends upon Local responders to provide, and whether Local responders are dependent upon any of its services and products (e.g., gas stations).

Nongovernmental Organization Plans. These plans are similar to private sector plans but may provide unique services for the Local community (e.g., shelter). These plans need to align with Local and other government plans.

State EOPs. These plans outline how States organize their resources and services and the steps Local governments can take to request services, as well as how to address conflicts for resources.

National Planning Frameworks. These plans identify specific roles and responsibilities, coordinating structures, and practices for managing incidents that range from those managed locally to larger-scale incidents, including catastrophic natural disasters.

Visual 24: Activity 2.2 - Plan Integration

Instructions:

1. In your IAW, answer the questions on the worksheet
2. Discuss the questions/answers within your table groups
3. For question 3, note any solutions provided by your table group during the discussion
4. Be prepared to share your answers with the class



Key Points

Purpose: The purpose of this activity is to reflect on your jurisdiction's experience with plan integration.

Visual 25: Planning Principles

Planning must:

- Represent the whole community and its needs
- Include participation from all stakeholders
- Involve senior officials throughout the process



Key Points

Principles of effective planning include the following:

Whole community approach: Planning must not only be representative of the actual population within the community, but also must involve the whole community in the planning process. Understanding the composition of the population—such as accounting for people with disabilities, for others with access and functional needs, and for the needs of children—must occur from the outset of the planning effort.

> A description of FEMA's Whole Community Initiative (https://www.fema.gov/glossary/whole-community) can be obtained.

Stakeholder participation: Planning must include participation from all stakeholders in the community. Effective planning ensures that the whole community is represented and involved in the planning process. The most realistic and complete plans are prepared by a diverse planning team, including representatives from the jurisdiction's departments and agencies, civic leaders, businesses, and organizations (e.g., civic, social, faith-based, humanitarian, educational, advocacy, and professional) who are able to contribute critical perspectives or have a role in plan execution.

Involvement of senior officials: Planning includes senior officials throughout the process to ensure both understanding and approval. Senior official buy-in helps the planning process meet requirements of time, planning horizons, simplicity, and level of detail.

Visual 26: Planning Principles (Continued)

Planning:

- Uses a logical and analytical problem-solving process
- Considers all threats and hazards
- Is capabilities-based
- Should be flexible enough to address both traditional and catastrophic incidents



Key Points

Addition principles of planning include the following:

Problem solving: Planning uses a logical and analytical problem-solving process to help address the complexity and uncertainty inherent in potential threats and hazards. By following a set of logical steps that includes gathering and analyzing information, determining operational objectives, and developing alternative ways to achieve the objectives, planning allows a jurisdiction to work through complex situations.

All-threat and hazard approach: Although the causes of emergencies can vary greatly, many of the effects do not. Planners can address common operational functions in their basic plans instead of having unique plans for every type of threat or hazard. Planning for all threats and hazards ensures that, when addressing emergency functions, planners identify common tasks and those responsible for accomplishing the tasks.

Capabilities-based planning: This approach focuses on a jurisdiction's capacity to take a course of action. Capabilities-based planning answers the question, "Do I have the right mix of training, organizations, plans, people, leadership and management, equipment, and facilities to perform a required emergency function?"

Flexibility: Planning should be flexible enough to address both traditional and catastrophic incidents. Scalable planning solutions are the most likely to be understood and executed properly by the operational personnel who have practice in applying them.

Visual 27: Planning Principles (Continued)



Planning:

- Establishes measurable goals
- Depicts the anticipated environment for action
- Identifies tasks, resources, and accountability
- Does not need to start from scratch

Key Points

The following are additional planning principles:

- **Measurable goals:** Planning establishes measurable goals and clearly identifies the desired results. Measurable goals enable unity of effort and consistency of purpose among all who must execute the plan and make it possible to gauge progress in closing capability gaps.
- **Anticipated environment:** Anticipating the environment for action promotes early understanding and agreement on planning assumptions and risks, as well as the context for interaction. In situations where a specific threat or hazard has not been experienced, planning provides the opportunity to anticipate conditions and systematically identify potential problems and workable solutions.
- **Tasks, resources, and accountability:** Planning identifies tasks, allocates resources to accomplish those tasks, and establishes accountability. Decision makers must ensure that they provide planners with clearly established priorities and adequate resources. Planners and plan participants should be held accountable for effective planning and execution.
- **Not from scratch:** Planners should take advantage of the experience of other planners, as well as plans generated by other jurisdictions and the State. Examples of available resources include Threat and Hazard Identification and Risk Assessments (THIRAs), State standards and guidance, FEMA-provided guidance and training, and plans produced by key infrastructure owners.

Job Aid 4: Planning Principles

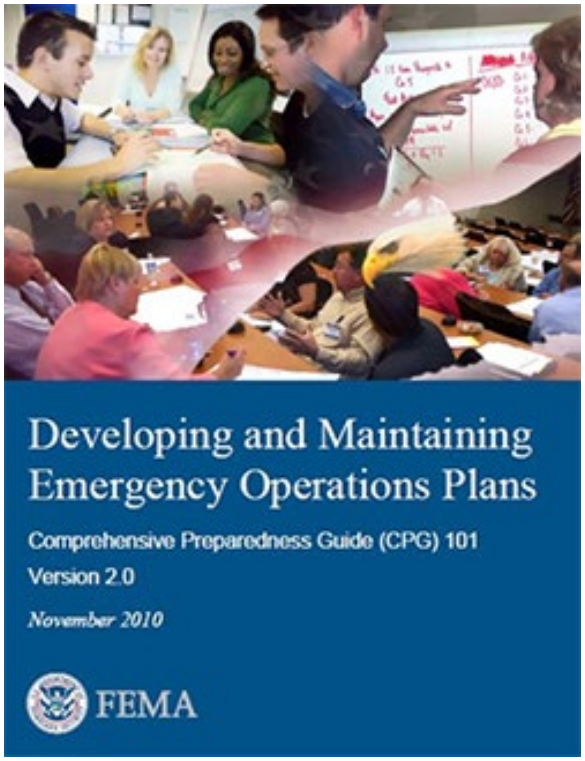
From Comprehensive Preparedness Guide (CPG) 101: Developing and Maintaining Emergency Operations Plans, September 2021, Version 3.0

1.1 Planning Principles - Applying the following principles to the planning process is key to developing an all-hazards plan for protecting lives, property, and the environment:

- 1.1.1 Planning should be community-based, representing the whole population and its needs
- 1.1.2 Planning should emphasize caring for people with disabilities and individuals with access and functional needs, infants, children, and older adults
- 1.1.3 Planning should include all the stakeholders in the community
- 1.1.4 Planning should address equity in all phases of the planning
- 1.1.5 Planning should engage the private sector
- 1.1.6 Planning should include elected and appointed officials throughout the process
- 1.1.7 Planning is a fundamental process to manage risk
- 1.1.8 Planning should use analytical approaches to address
- 1.1.9 Planning should consider all hazards and threats
- 1.1.10 Time, uncertainty, risk, and experience influence planning
- 1.1.11 Planning is a key component of the national preparedness system
- 1.1.12 Plans should clearly identify the mission, supporting goals and desired results
- 1.1.13 Planning should depict the anticipated environment for action
- 1.1.14 Planning does not need to start from scratch
- 1.1.15 Planning should identify tasks, allocate resources to accomplish those tasks and establish accountability
- 1.1.16 Effective plans tell those with operational responsibilities what to do and why, and they instruct those outside the jurisdiction how to provide support and what to expect

Visual 28: Comprehensive Planning Guide (CPG) 101

- Provides a practical application of the planning principles
- Applies to tactical, operational, and strategic planning
- Is adaptable to:
  - All government levels
  - Private entities and nongovernmental organizations



Key Points

Comprehensive Planning Guide (CPG) 101 provides important guidance for emergency planners. It employs a detailed planning process that leads to complete, more accurate, and more relevant emergency plans.

CPG 101 methods are applicable to tactical, operational, and strategic planning efforts. They are also adaptable to all levels of government, as well as to private entities and nongovernmental organizations.

Review the CPG 101 Table of Contents (https://www.fema.gov/sites/default/files/documents/fema_cpg-101-v3-developing-maintaining-eops.pdf)

Visual 29: Emergency Planning

- Is a key component of the preparedness cycle
- Is a process to manage risk
- Indicates:
  - What to do
  - Why to do it
  - Who is responsible
  - Where to get support
  - How activities coordinate



Key Points

Emergency planning is a key component of the preparedness cycle:

- Plans are continuously evaluated and improved through a cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action.

Planning is fundamentally a process to manage risk:

- In the risk management process, we define context; identify and assess risks; and analyze, decide upon, implement, monitor, and evaluate courses of action for managing those risks.
- As part of the process, planning is a tool that allows for systematic risk management to reduce or eliminate risks in the future.

Planning indicates what, why, who, where, and how:

- Plans must communicate clearly to operational personnel and support providers what should happen, why it is done, and what to expect from it.
- Plans should delineate roles and responsibilities. There should be no ambiguity regarding who is responsible for major tasks.
- Plans should make clear where to obtain resources and how those outside the jurisdiction can lend support.
- Plans should clarify how functions and activities are to be coordinated and how they complement one another. This enables personnel to operate as a productive team more effectively, reducing duplicative efforts and enhancing the benefits of collaboration.
- Planning is often considered to be both an art and a science in that successful planners are able to draw from both operational experience and an understanding of emergency management principles, but are also intuitive, creative, and have the ability to anticipate the unexpected.
- Mastering the balance of art and science is the most challenging aspect of becoming a successful planner.

Visual 30: Unit Summary

- Planning is a key component of preparedness
- Building and sustaining capabilities is essential for ensuring preparedness at all levels
- The National Planning System provides a unified approach and common terminology to plan for all threats across all mission areas
- Plans should:
    - Represent the whole community and its needs
    - Be integrated vertically and horizontally

Key Points

This unit has provided a course overview and a brief overview of preparedness and planning.

The next two units will describe the emergency planning process and how THIRA contributes to that process.

Unit 3: Threat and Hazard Identification and Risk Assessment and Stakeholder Preparedness Review

Visual 1: Unit 3: Threat and Hazard Identification and Risk Assessment and Stakeholder Preparedness Review

Unit 3: Threat and Hazard Identification and Risk Assessment and Stakeholder Preparedness Review



Key Points

Unit 3 provides information about the Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR) process and provides opportunities to assess and consider your communities threat/hazard risk analysis processes. This unit should take approximately 1 hour to complete.

Topic	Time
Unit Introduction	5 minutes
THIRA/SPR Overview	10 minutes
THIRA/SPR Process	25 minutes
THIRA/SPR Review Activity 3.1 – THIRA In My Community (Visual 17)	18 minutes
Unit Summary	2 minutes
Total Unit Time:	**1 hour**

Visual 2: Unit Objectives

- Identify the steps in the THIRA/SPR process
- Indicate how outputs of THIRA/SPR can be used in emergency operations planning

Key Points

Review the unit objectives.

Note: In this course, the terms *jurisdiction* and *community* are used interchangeably.

Visual 3: Discussion Question

Why should communities perform threat and hazard identification and risk assessment (THIRA) and stakeholder preparedness review (SPR)?

Visual 4: Federal Guidance on THIRA/SPR

2019 EMPG grant recipients are required to:

- Prioritize grant funding to address capability targets and gaps
- Develop and maintain THIRA, which informs and supports an annual SPR
- Develop and maintain a Distribution Management Plan as an annex to the Emergency Operations Plan (EOP)

State example:

- Baseline requirements include participation in THIRA/SPR

Key Points

Per the *Department of Homeland Security (DHS) Notice of Funding Opportunity (NOFO) for Fiscal Year 2019,* Emergency Management Performance Grant (EMPG) Program:

> "The Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA) encourage EMPG recipients and sub-recipients to prioritize grant funding toward investments that address capability targets and gaps identified through the annual (Threat and Hazard Identification and Risk Assessment (THIRA) and State Preparedness Report (SPR) process."
>
> "In order to qualify for EMPG Program funding, all recipients are required to develop and maintain a Distribution Management Plan as an annex to their Emergency Operations Plan (EOP)."
>
> "FEMA requires recipients to prioritize grant funding to demonstrate how investments support closing capability gaps or sustaining capabilities identified in the THIRA/SPR process."

State Example: Baseline requirements include participation in THIRA

For example, one State has for EMPG grant funding eligibility as a sub-recipient the following baseline requirements:

There are eight (8) Baseline Requirements for participation in the program. All EMPG recipients are required to:

Designate a 24/7 Emergency Operations Center (EOC)
Maintain a Local Emergency Operations Plan (LEOP)
Implement the National Incident Management System (NIMS)
Complete FEMA/SEMA training requirements
Participate in at least three (3) annual exercises
Maintain an annual Training and Exercise Plan (TEP)
Register for WebEOC, utilize during incidents, events, and trainings
Participate in Threat and Hazard Identification and Risk Assessment (THIRA) updates

Visual 5: THIRA/SPR



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

- Is a process for:
  - Identifying and assessing risk
  - Estimating capability requirements
  - Building and sustaining capabilities
- Provides a basis for all types of planning

Key Points: THIRA/SPR

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

- Is a process for:
  - Identifying and assessing risk
  - Estimating capability requirements
  - Building and sustaining capabilities
- Provides a basis for all types of planning

Importance of Community-Wide Involvement

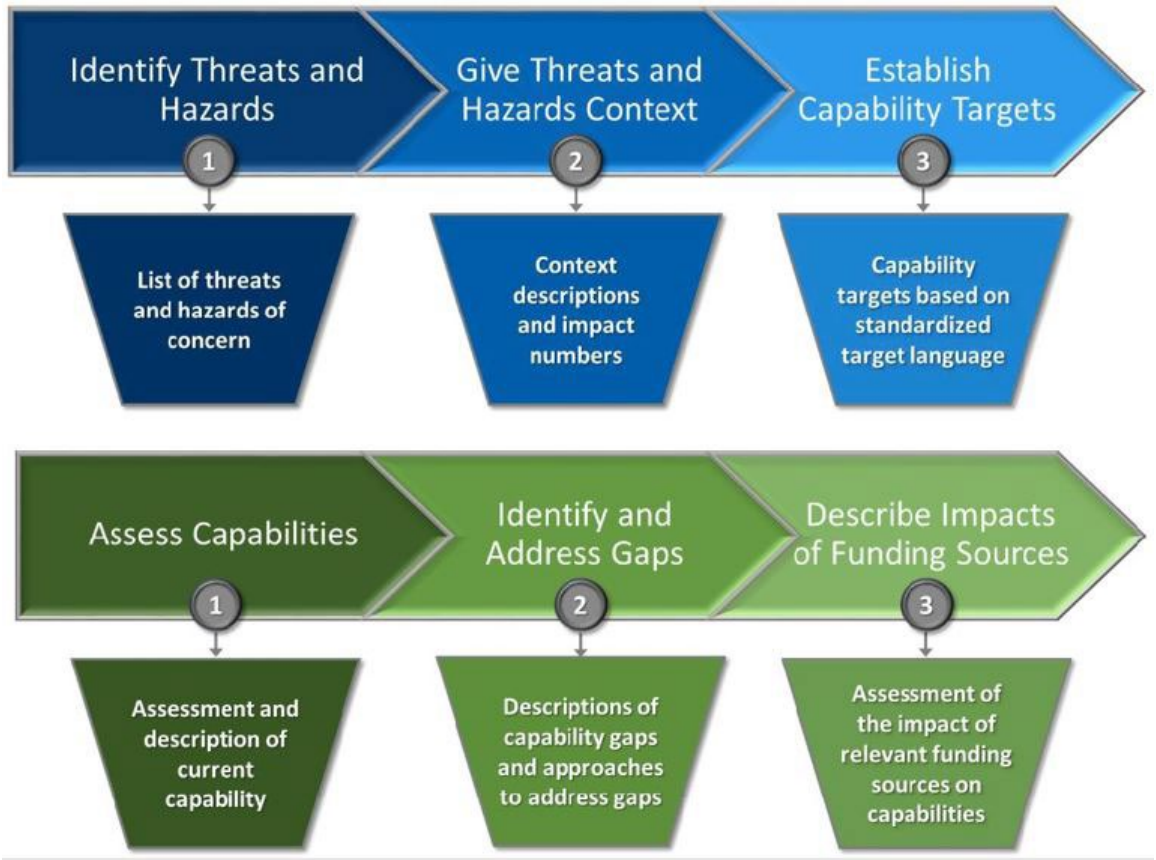
The outputs of the THIRA/SPR process inform all other preparedness activities; helping communities identify challenges, drive priorities, and close gaps in capabilities. Therefore, when developing and updating THIRA/SPRs, communities should ensure their assessment and planning efforts include community-wide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

Visual 6: THIRA/SPR Process Overview

The process is divided into two distinct parts:

- THIRA – first three steps
- SPR – next three steps

THIRA and SPR are interconnected processes that, together, communities use to evaluate their preparedness.



THIRA/SPR Process

Key Points

The THIRA is a three-step assessment

- FEMA recommends that communities complete the THIRA on a three-year cycle, rather than annually
- FEMA recommends completing the SPR on an annual cycle

The THIRA/SPR process consists of the following steps:

THIRA:

1. Identify the Threats and Hazards of Concern (List of Threats/Hazards)

2. Give the Threats and Hazards Context (Context descriptions for Threats/Hazards)
3. Establish Capability Targets (Capability Target Statements)

SPR:

1. Assess Capabilities (Assessment of current capability)
2. Identify and Address Gaps (Descriptions and approaches to address gaps)
3. Describe Impacts of Funding Sources (Impact of relevant funding sources)

The THIRA process is described in *Comprehensive Preparedness Guide (CPG) 201, Threat and Hazard Identification and Risk Assessment (THIRA) Guide* (https://www.fema.gov/media-library/assets/documents/165308), available on the following FEMA Web page.

Visual 7: THIRA Step 1

Identify the threats and hazards of concern based on past experience, forecasting, expert judgment, and available resources. Include:

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

What threats or hazards is your jurisdiction concerned about?



Key Points

The first step is to identify threats and hazards of concern to the jurisdiction based on past experience, forecasting, expert judgment, and available resources.

Natural hazards are those resulting from acts of nature, such as hurricanes, earthquakes, or tornadoes, as well as disease outbreaks or epidemics.
Technological hazards are those resulting from accidents or the failures of systems and structures, such as hazardous materials spills or dam failures.
Threats or human-caused incidents are those resulting from the intentional actions of an adversary, such as a threatened or actual chemical or biological attack or cyber event.

Job Aid 5: Types of Threats/Hazards and Examples

Jurisdictions face a variety of threats and hazards that can be the result of natural, technological, or human-caused incidents. Examples of each type of threat/hazard are provided in the following table.

Natural	Technological	Human-Caused
Results from acts of nature	**Involves accidents or the failures of systems and structures**	**Caused by the intentional actions of an adversary**
Avalanche Drought Earthquake Epidemic Flood Hurricane/Typhoon Space weather Tornado Tsunami Volcanic eruption Winter storm	Dam failure Hazardous materials release Industrial accident Levee failure Mine accident Pipeline explosion Radiological release Train derailment Transportation accident Urban conflagration Utility disruption	Active shooter incident Armed assault Biological attack Chemical attack Cyber-attack against data Cyber-attack against infrastructure Explosives attack Improvised nuclear attack Nuclear terrorism attack Radiological attack

Source: CPG 201, Threat and Hazard Identification and Risk Assessment Guide

Visual 8: THIRA Step 2

Give the threats and hazards context

- Select the threats/hazards of greatest concern
- Describe the factors that would make each threat or hazard more challenging for your community: When? Where? Who? What?



Key Points

Step 2 is to select the threats/hazards of greatest concern and to describe the factors that would make each threat or hazard more challenging for your community. The output of Step 2 is context descriptions for each threat and hazard identified in Step 1. These context descriptions will be used in Step 3 of the THIRA process.

Describe the factors that would make each threat or hazard more challenging for your community. Key questions for Step 2 include:

When might it occur (time of day/season)?
Where might it occur (populated areas, coastal zones, industrial areas, etc.)?
Who might be most affected?
What are the conditions that would escalate the level of concern in the jurisdiction?

Visual 9: THIRA Step 2 Example

Threat/Hazard	Context Description
Active Shooter **(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.
Active Shooter (**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.

Visual 10: THIRA Step 3



Examine the core capabilities using the threats and hazards

- Set **desired** measurable outcomes for each of the 32 core capabilities
- Estimate the impacts of each threat/hazard on the jurisdiction

The THIRA process lays the foundation for creating detailed implementation plans. Jurisdictions may need to plan and exercise for additional threats and hazards—not just those "of greatest concern."

Key Points

The third step is to examine the core capabilities using the threats and hazards. This step has two parts:

Set desired measurable outcomes for each of the 32 core capabilities through standardized target language. Examples include:

- Within **(#) hours**, extinguish **(#)** structure fires
- Within **(#) hours** of an incident, provide security and law enforcement services to protect **(#)** people affected
- Within **(#) hours** of an incident, provide emergency sheltering for **(#)** people; maintain sheltering operations for **(#)** days
- Within **(#) (time)** of an incident, clear **(#)** miles of road affected, to enable access for emergency responders, including private and non-profit.

Estimate the impacts of each threat/hazard on the jurisdiction.

> Examples of impacts that should be considered include displaced households, fatalities, injuries/illnesses, direct economic impacts to the jurisdiction, indirect economic impacts from supply chain system disruption, and disruption to infrastructure. The impacts can be expressed in numbers, percentages, dollar amounts, and so on. Some examples are given on the next page.

Visual 11: THIRA Step 3 (Continued)



Set capability targets

- Decide what level of capabilities the jurisdiction needs to reach desired outcomes
- The output of this step is a target for each of the core capabilities
- Base capability targets on the greatest estimated impact and the desired outcome for each capability

Key Points

The third step also involves setting capability targets. To do this, decide what level of capabilities your jurisdiction needs to reach the desired outcomes. The output of this step is a target for each of the core capabilities.

Capability targets should be based on the greatest estimated impact and the desired outcome for each capability:

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. 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.

Visual 12: THIRA Step 3 Example

Threat/Hazard	Context Description
Earthquake	A magnitude 7.8 earthquake along the Mainline Fault occurring at approximately 2:00 p.m. on a weekday with ground shaking and damage expected in 19 counties, extending from Alpha County in the south to Tau County in the north and into the Zeta Valley.
Terrorism	A potential threat exists from a domestic group with a history of using small IEDs in furtherance of hate crimes. There are a number of large festivals planned during the summer at open air venues that focus on various ethnic and religious groups. These events draw on average 10,000 attendees daily.
Core Capability	**Mass Search and Rescue Operations**
Capability Target	Within 72 hours, rescue: 2,500 people in 500 completely collapsed buildings 5,000 people in 1,000 non-collapsed buildings 10,000 people in 2,500 buildings 500 people from collapsed light structures

Key Points

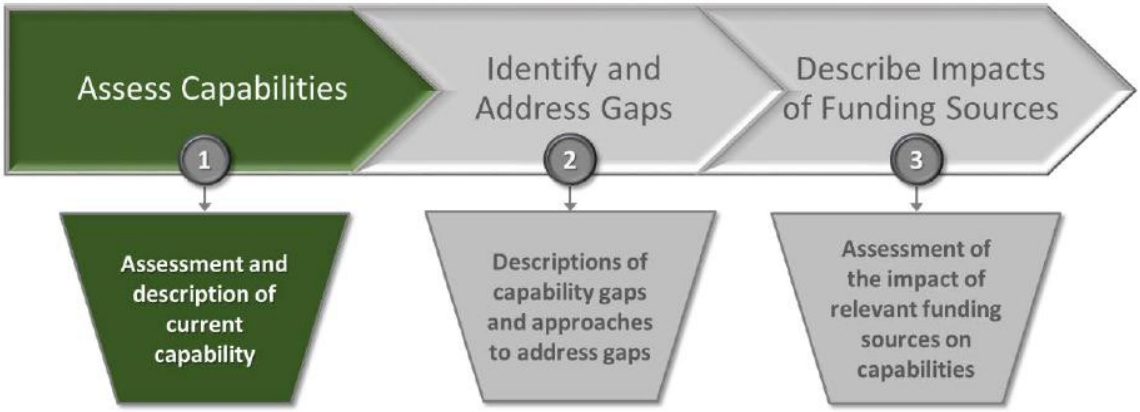
The table, excerpted from CPG 201, provides an example of a capability target for the Mass Search and Rescue Operations core capability for a community. The capability target includes the following impacts:

- Number of buildings to be searched
- People to be rescued
- Families to be sheltered

The capability target also describes the desired outcomes:

- Completing collapsed building search and rescue within 72 hours.
- Communities should produce a similar table for each core capability.

Visual 13: SPR Step 1



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:

- Quantitatively assess capability
- Qualitatively describe current capabilities and capability changes
- Provide context on current capability estimations

Key Points

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 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?

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. Communities identify the "POETE" areas (model that divides capabilities into meaningful, broad categories of activity—planning, organization, equipment, training, and exercises.)—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?

Step 1.3: 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

Visual 14: SPR Step 1 Example

SPR Step	Capability Lost	Capability Sustained	Capability Built	Mutual Aid to Fill the Gap?
1.1 (Quantitative)	Lost capability to shelter 3,000 people	Sustained capability to shelter 12,000	Built the capability to shelter 1,000	Not applicable
1.2 (Qualitative)	Jurisdiction lost the capability due to...	Jurisdiction was able to sustain the capability to...	Jurisdiction lost the capability due to...	Jurisdiction has standing agreement with....
1.3 (Confidence level: 1-5)	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: 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			

Key Points

SPR 1.1: 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.

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. 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.

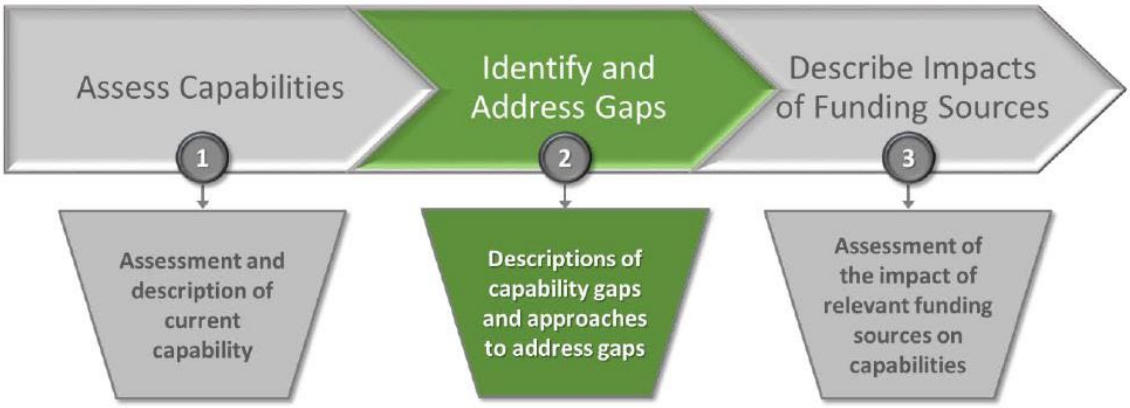
SPR 1.2: The purpose of Step 1.2 of the SPR is to elaborate on the quantitative assessment of the capability change provided in Step 1.1. Communities identify the POETE areas—planning, organization, equipment, training, and exercises —in which they lost, sustained, and built capability, and develop free-text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

SPR 1.3: 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: 1-5, with 1 representing lower confidence and 5 representing higher confidence.

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.

Visual 15: SPR Step 2



The purpose of Step 2 of the SPR is to:

- Identify and contextualize the capability gap between a community's capability target and their estimated current capability
- Describe approaches to address gaps and sustainment needs
- Describe impacts of funding sources

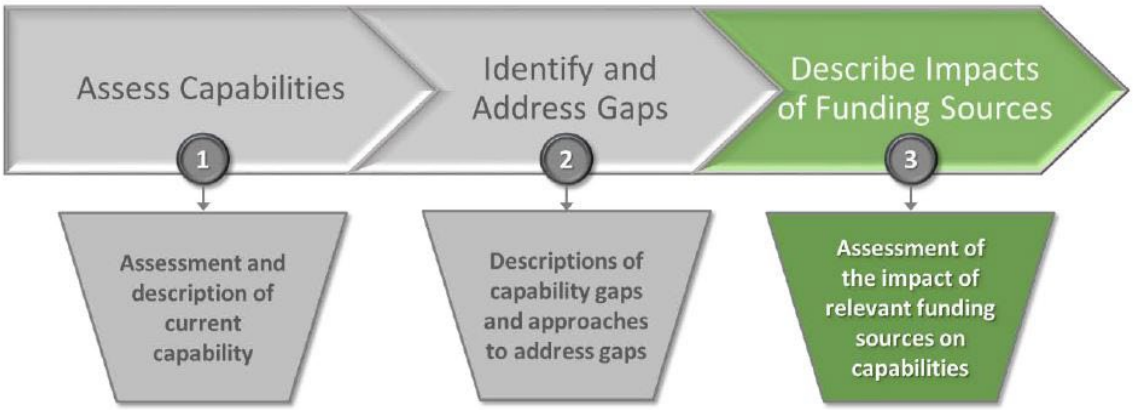
Key Points

Step 2.1: Identify and contextualize the capability gap between a community's capability target and their estimated current capability (*Capability Target - Estimated Current Capability = Capability Gap*). 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. 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.

Step 2.2: 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?

Visual 16: SPR Step 3



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

Key Points

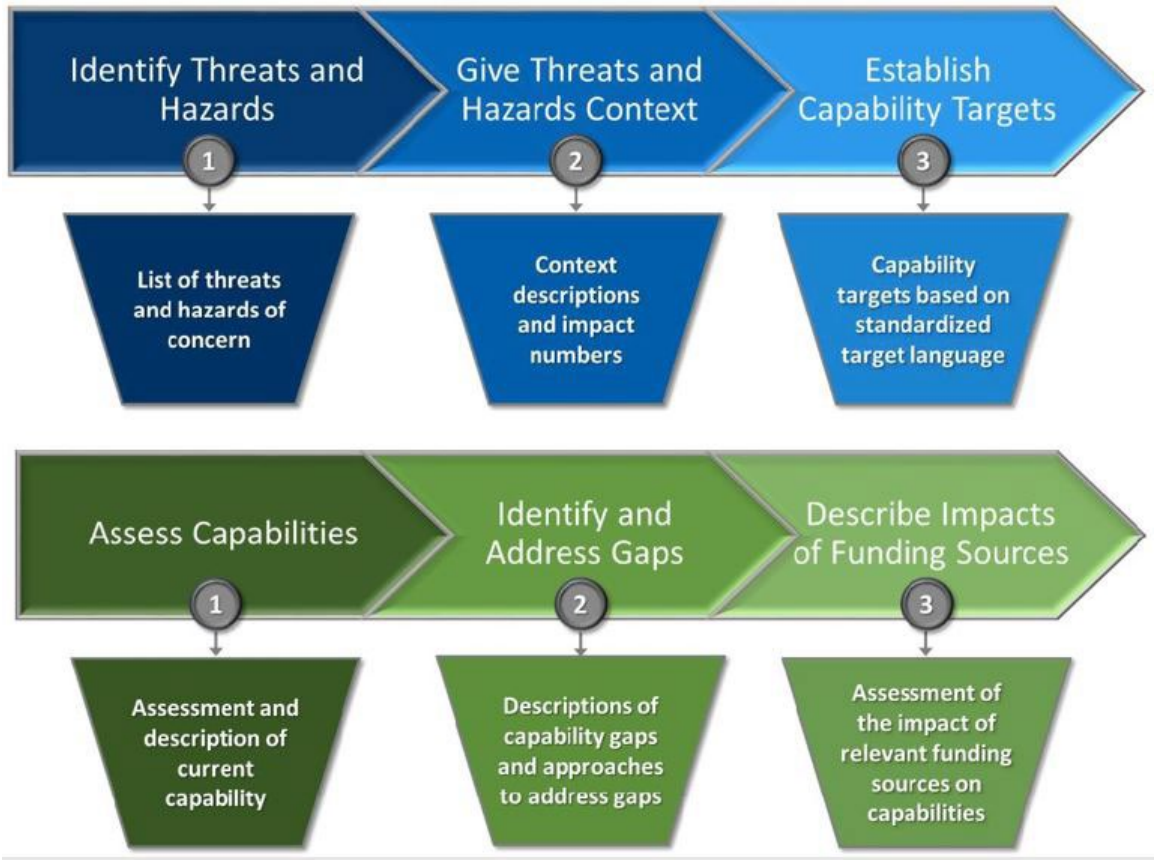
There are two primary elements in Step 3 of the SPR:

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

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

- 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?

Job Aid 6: Threat and Hazard Identification and Risk Assessment (THIRA) Process



Threat and Hazard Identification (THIRA)

Step 1: Identify the Threats and Hazards of Concern

Identify the threats and hazards of concern based on past experience, forecasting, expert judgment, and available resources. Include:

- Natural threats/hazards
- Technological threats/hazard.
- Threats or human-caused threats/hazards

Step 2: Give the Threats and Hazards Context Descriptions

- Select the threats/hazards of greatest concern.
- Describe the factors that would make each threat or hazard more challenging for your community. For example:
  - When might it occur (time of day/season)?
  - Where might it occur (populated areas, coastal zones, industrial areas, etc.)?
  - Who might be most affected?

- What are the conditions that would escalate the level of greatest concern in the jurisdiction?

  Example: A nighttime truck accident on a primary roadway results in the release of a toxin in a densely populated residential area that includes several assisted living facilities.

Step 3: Establish Capability Targets

- Set desired measurable outcomes for each of the 32 core capabilities.
- Estimate the impacts of each threat/hazard on the jurisdiction.

  Examples of Measurable Outcomes:

- Restore access to main transportation corridors within 48 hours.
- A hundred percent of jurisdictions will have mitigation plans.
- During the first 72 hours of an incident, conduct operations to recover fatalities.
- Set Capability Targets
- Decide what level of capabilities the jurisdiction needs to reach desired outcomes.
- The output of this step is a target for each of the core capabilities.
- Base capability targets on the greatest estimated impact and the desired outcome for each capability.

Stakeholder Preparedness Review (SPR)

Step 1: Assessment and Description of Current Capability

- Identify and contextualize the capability gap between a community's capability target and their estimated current capability
- Describe current capabilities and capability changes
- Provide additional context

Step 2: Identify and Address Gaps

- Identify and contextualize the capability gap between a community's capability target and their estimated current capability (Capability Target - Estimated Current Capability = Capability Gap).
- Identify approaches for sustainment or filling the capability gap(s) in the relevant POETE area

Step 3: Describe Impacts of Funding Sources

- Assess the Role of Funding for Building and Sustaining Capabilities
- Assess the Role of Funding in Real-World Incidents

Use the results of the THIRA/SPR to enhance preparedness efforts including:

- Developing or updating EOPs
- Planning and conducting training and exercises
- Working collaboratively to build, sustain, or deliver capabilities
- Determining resource requirements
- Engaging the whole community through public awareness and much more.

Visual 17: Putting It All Together

- Compile and analyze all the information, including:
  - Threat/hazard data
  - Jurisdiction characteristics
  - Response capabilities
  - Impact assessments
- Organize the information into a format that is usable by the planning team
- Organizing and analyzing the information will enable you to develop goals and objectives.



Key Points

Let's take a moment to review key points about THIRA:

THIRA	THIRA Does Not
Is a comprehensive process for identifying threats and hazards, along with their associated capabilities Engages the whole community in establishing desired outcomes Focuses on a jurisdiction's unique threats and hazards Supports planning for all mission areas by establishing capability targets Provides a basis for identifying resource gaps Allows for assessment and reporting on preparedness	Replace the need for strategic, mitigation, and operational planning Narrow its scope to a single threat or hazard Standalone – it is an integral part of the overall National Preparedness System. Limit input to traditional preparedness partners Focus on current capabilities, but rather establishes targets for desired levels

You can learn more about THIRA by completing the FEMA independent study course IS-2001, Threat and Hazard Identification and Risk Assessment (THIRA).

Visual 18: THIRA/SPR and Planning

- The THIRA/SPR process lays the foundation for creating detailed implementation plans
- Capability targets can be used to support many different planning processes



Visual 19: Activity 3.1 – THIRA in My Community

Instructions:

Working individually . . .

1. Using one of the risks of greatest concern you have identified for your community/jurisdiction, complete the Activity 3.1 Worksheet in your IAW.
2. Share some your answers in the class debrief.



Visual 20: Unit Summary

THIRA/SPR:

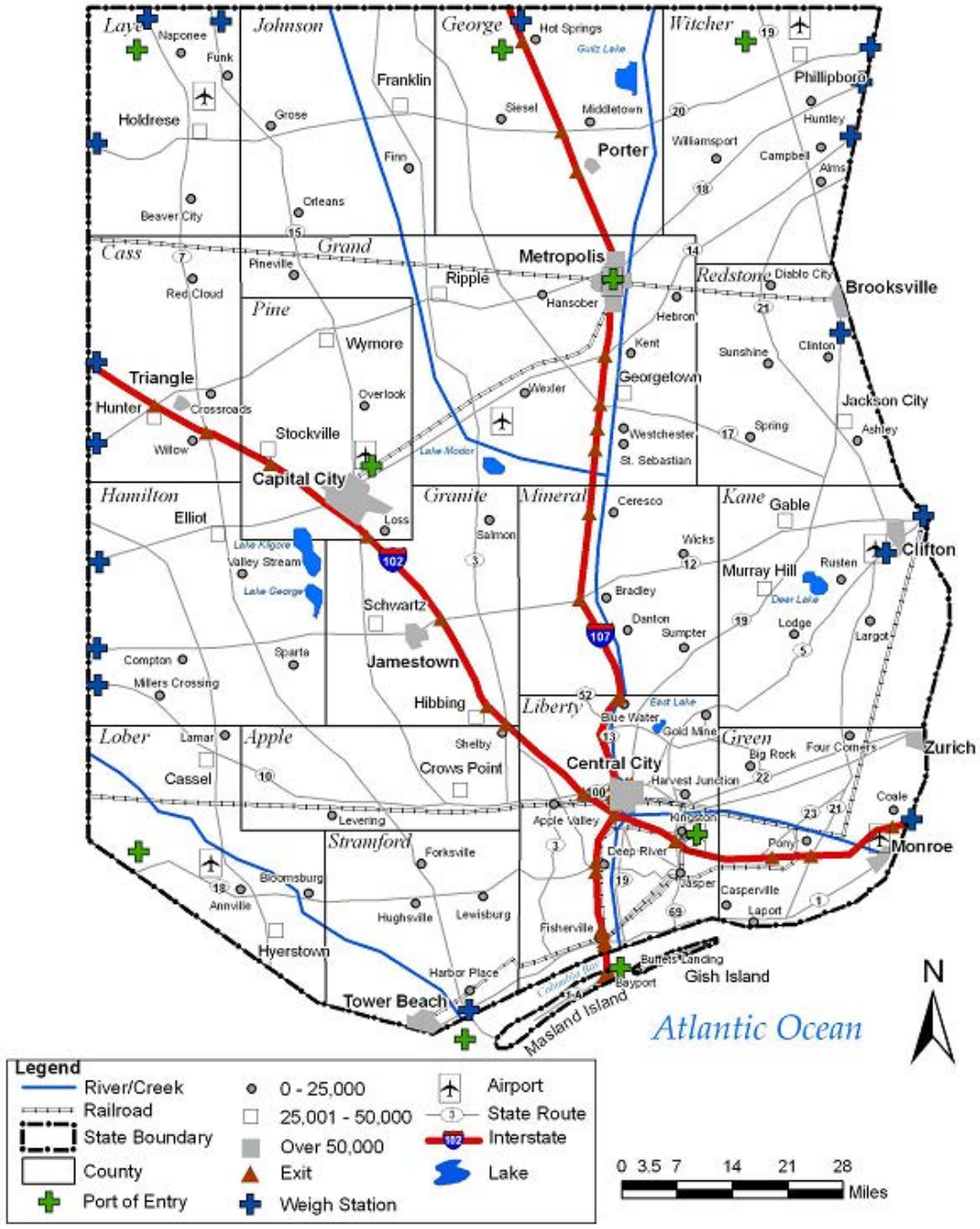
- Are interconnected processes that, together, communities use to evaluate their preparedness.
- Are processes for:
    - Identifying and assessing risk
    - Estimating capability requirements
    - Building and sustaining capabilities
- Provide outputs that are used in emergency planning

Job Aid 7: THIRA Examples

This job aid provides examples of completed worksheets for the fictional jurisdiction, State of Columbia, for the Threat and Hazard Identification and Risk Assessment as described in Comprehensive Preparedness Guide (CPG) 201.

Note: These examples do not represent a complete THIRA. They are not prescriptive or inclusive of all possible approaches or types of information that could be included.

State of Columbia Map



State of Columbia Threat and Hazard Description Statements

Threat/Hazard Group	Threat/Hazard Type	Description
Natural	Tornado	**Description 1:** Multiple EF4 tornadoes strike the central business districts of Central City (pop. 149,000, located in Liberty County) and Capital City (pop. 265,000, located in Grand County) during peak occupation at 2 p.m. on a Wednesday.
Natural	Hurricane	**Description 1:** A Category 4 hurricane makes landfall near a highly developed, residential coastal area during the peak tourist season on Labor Day morning.
Technological	Dam-Failure	**Description 1:** A major power-generating dam has a catastrophic failure, resulting in the downstream flooding of three towns. The dam failure also eliminates the power for the surrounding towns, potable water supply, and fire suppression capability.
Human-Caused	Chemical Attack	**Description 1:** A lone-wolf terrorist releases a chemical agent in a basketball stadium through the ventilation system during a sold-out regional championship game. **Description 2:** A militia attack hits three local chemical facilities containing corrosive and other hazardous materials on a windy day in October.

State of Columbia Threat and Hazard Description Statements (Continued)

Threat/Hazard Group	Threat/Hazard Type	Description
Human-Caused	Cyber Attack	**Description 1:** A cyber attack on the network of a water utility in a rural community serving 10,000 residences is carried out with credentials stolen from a company that makes software used to control industrial systems.

State of Columbia Desired Outcomes

	Core Capability	Desired Outcome
Common	Planning	Maintain, every 3 years, an all-threat/hazard plan that addresses all of the mission areas, with specific annexes as required. Maintain, every 2 years, a Continuity of Operations (COOP)/Continuity of Government (COG) plan for all critical infrastructure.
Common	Public Information and Warning	Provide information in a timely manner, consistent with the threat or hazard, to enable people to take appropriate protective measures.
Common	Operational Coordination	Establish and maintain unified and coordinated operational structure and process in the impacted area within 12 hours of a potential or actual incident.
Prevention	Forensics and Attribution	Prioritize evidence collection and analysis to assist in preventing initial or follow-on terrorist acts.
Prevention and Protection	Intelligence and Information Sharing	Promptly share relevant, timely, and actionable information and analysis with Federal, State, Local, and private partners with appropriate classified/unclassified products in accordance with established protocols.
Prevention and Protection	Interdiction and Disruption	Interdict 100% of specific conveyances, cargo, and persons associated with an imminent threat to the State of Columbia.

State of Columbia Desired Outcomes (Continued)

	Core Capability	Desired Outcome
Prevention and Protection	Screening, Search, and Detection	Screen 100% of targeted conveyances, cargo, and persons associated with an imminent terrorist threat using all means.
Protection	Access Control and Identity Verification	Ensure 100% verification of identity to authorize, grant, or deny physical and cyber access to specific locations, information, and networks.
Protection	Cybersecurity	Detect 100% of malicious activity directed against all critical infrastructure, key resources, and networks.
Protection	Physical Protective Measures	Protect people, structures, materials, products, and systems of key operational activities and critical infrastructure sectors against an identified or perceived threat.
Protection	Risk Management for Protection Programs and Activities	Complete risk assessments for 100% of prioritized critical infrastructure and key resources (CI/KR) assets.
Protection	Supply Chain Integrity and Security	Secure all identified priority supply nodes, transit methods, and materials.
Mitigation	Planning	Maintain, every 3 years, an all-threat/hazard plan that addresses all of the mission areas, with specific annexes as required. Maintain, every 2 years, a Continuity of Operations (COOP)/Continuity of Government (COG) plan for all critical infrastructure.
Mitigation	Public Information and Warning	Provide information in a timely manner, consistent with the threat or hazard, to enable people to take appropriate protective measures.
Mitigation	Operational Coordination	Establish and maintain unified and coordinated operational structure and process in the impacted area within 12 hours of a potential or actual incident.
Mitigation	Forensics and Attribution	Prioritize evidence collection and analysis to assist in preventing initial or follow-on terrorist acts.

State of Columbia Desired Outcomes (Continued)

	Core Capability	Desired Outcome
Response	Intelligence and Information Sharing	Promptly share relevant, timely, and actionable information and analysis with Federal, State, Local, and private partners with appropriate classified/unclassified products in accordance with established protocols.
Response	Interdiction and Disruption	Interdict 100% of specific conveyances, cargo, and persons associated with an imminent threat to the State of Columbia.
Response	Screening, Search, and Detection	Screen 100% of targeted conveyances, cargo, and persons associated with an imminent terrorist threat using all means.
Response	Access Control and Identity Verification	Ensure 100% verification of identity to authorize, grant, or deny physical and cyber access to specific locations, information, and networks.
Response	Cybersecurity	Detect 100% of malicious activity directed against all critical infrastructure, key resources, and networks.
Response	Physical Protective Measures	Protect people, structures, materials, products, and systems of key operational activities and critical infrastructure sectors against an identified or perceived threat.
Response	Risk Management for Protection Programs and Activities	Complete risk assessments for 100% of prioritized critical infrastructure and key resources (CI/KR) assets.
Protection	Supply Chain Integrity and Security	Secure all identified priority supply nodes, transit methods, and materials.

State of Columbia Estimated Impacts Based on Threat and Hazard Descriptions

	Planning (Common)	Public Information & Warning (Common)	Operational Coordination (Common)	Forensics and Attribution (Prevention)	Intelligence & Information Sharing (Prevention and Protection)	Interdiction & Disruption (Prevention and Protection)	Screening, Search & Detection (Prevention and Protection)
Category 4 Hurricane	Execute pre-landfall deliberate plans into crisis action planning/IAP	Warn 150,000 people	300 square miles are impacted				
Dam Failure	Translate dam safety plan into Crisis Action Plan	Warn 15,000 people	Coordinate with dam owner/ operator and impacted jurisdictions based on inundation models				
Chemical Attack	Design law enforcement options plan Translate Terrorist Annex into Crisis Action Plan Coordinate with site-specific plan Implement Medical Countermeasure Plan	Warn 12,000 event attendees and 1,200 vendors and staff	5 square miles potentially impacted	Identify chemical Determine source of origin	Receive classified and unclassified information Capability to declassify information to key stake-holders (responders, location owner)	Site security personnel Weapons of Mass Destruction (WMD) teams, in coordination with FBI Local law enforcement	Air monitoring Chemical sensors at site entrances for 12,000 people Roving dog teams covering 2-mile radius around stadium

State of Columbia Estimated Impacts Based on Threat and Hazard Descriptions (Continued)

	Access Control & Identify Verification (Protection)	Cyber Security (Protection)	Physical Protective Measures (Protection)	Risk Management for Protection Programs & Activities	Supply Chain Integrity & Security (Protection)	Community Resilience (Mitigation)	Long-term Vulnerability Reduction (Mitigation)	Risk and Disaster Resilience Assessment (Mitigation	Threats & Hazards Identification (Mitigation
Category 4 Hurricane	25% of critical infrastructure facilities are damaged		Harden 64 essential critical infrastructure facilities	25% of critical infrastructure facilities are damaged	Security for: Port Oil refinery Rail lines	4 hospitals significantly damaged 10 faith-based org. facilities destroyed 2 major retail stores destroyed 1,000 residential structures destroyed	25% of critical infra-structure facilities damaged Dam damaged	300 square miles are impacted	Category 4 hurricane impacts
Dam Failure	100% of dam personnel have credentials	100% of dam personnel have credentials	Site access screening	Alternate power sources will be needed	Distribution of power throughout the region	200 residential structures destroyed 20 industrial facilities without power	Coordinate with dam owner/ operator and impacted jurisdictions based on inundation models		Inundation of residences and businesses
Chemical Attack	12,000event attendees 1,200 staff and vendors		Site access screening Active vehicle screening	Assess stadium ventilation system					Chemical agent impacts

State of Columbia Estimated Impacts Based on Threat and Hazard Descriptions (Continued)

	Critical Transportation (Response)	Environmental Response/ Health & Safety (Response)	Fatality Management Services (Response)	Mass Care (Response)	Mass Search and Rescue Operations (Response)	On-Scene Security and Protection (Response)	Operational Communications (Response)
Category 4 Hurricane	2 major highways damaged 3 light-rail systems inoperable	2 water treatment plants are inoperable Sewage system is overloaded for more than 300 square miles Port fuel storage is damaged 2,000,000 cubic yards of debris	150 fatalities	300,000 people are impacted 75,000 people require shelter, 20% have access and functional needs 125,000 require feeding	1,000 residences damaged, 40% have household pets 25% of critical facilities	300 square miles of impacted area	7 damaged repeaters for first responder network 50% of the network is out 35% of cellular networks are inoperable
Dam Failure			25 fatalities	2,000 people are impacted 500 people require shelter, 20% have access and functional needs			
Chemical Attack		Hazardous materials precautions must be followed	800 fatalities				

State of Columbia Estimated Impacts Based on Threat and Hazard Descriptions (Continued)

	Public & Private Services & Resources (Response)	Public Health & Medical Services (Response)	Situational Assessment (Response)	Infrastructure Systems (Response/Recovery)	Economic Recovery (Recovery)	Health & Social Services (Recovery)	Housing (Recovery)	Natural & Cultural Resources (Recovery)
Category 4 Hurricane	25% of critical facilities do not have power 15 fuel stations used by emergency responders are inoperable Port fuel terminal is inoperable 35% of community staples (grocery stores, banks, pharmacies) are significantly damaged 8 first responder facilities are damaged	3,000 casualties	25% of reporting nodes are damaged	25% of critical infrastructure facilities are damaged 4 hospitals are significantly damaged 8 first responder facilities are damaged 50% of communications network is inoperable 300 square miles impacted	$100 million direct loss (damage estimates) $10 million indirect loss (commerce loss) 35% of community stores (grocery, banks, pharmacies) are closed	4 hospitals impacted Psychiatric institution damaged 10 community health facilities destroyed	75,000 people sheltered 1,000 residences destroyed	1,250,000 cubic yards of vegetative debris 500,000 cubic yards of construction debris 250,000 cubic yards of hazardous debris 12 historic sites impacted

State of Columbia Estimated Impacts Based on Threat and Hazard Descriptions (Continued)

	Public & Private Services & Resources (Response)	Public Health & Medical Services (Response)	Situational Assessment (Response)	Infrastructure Systems (Response/Recovery)	Economic Recovery (Recovery)	Health & Social Services (Recovery)	Housing (Recovery)	Natural & Cultural Resources (Recovery)
Dam Failure	50% of critical facilities do not have power	150 casualties		Delivery of power to the region is interrupted until alternate source found One major roadway blocked	$20 million loss of revenue		500 people require shelter	500,000 cubic yards of debris
Chemical Attack		5,000 casualties			$2 million loss of revenue			Hazardous materials precautions must be followed

State of Columbia Capability Targets

	Core Capability	Capability Target	Desired Outcomes
Common	**Planning**	**Response:** Execute hurricane plan and associated annexes within 5 days of expected tropical storm force winds; execute dam plan and associated annexes within 1 hour of impact; and execute terrorism plan and associated annexes in accordance with standard protocols, or within 1 hour of impact. **Mitigation:** Maintain an updated hazard mitigation plan that addresses identified threats and hazards, identify changing risk patterns, and create strategy to reduce the increased risk. **Recovery:** Execute a recovery plan within 60 days of impact.	Maintain and execute an all-threat/hazard plan as required. Maintain a COOP/COG plan for all critical infrastructure.
Common	**Public Information and Warning**	**Protection:** Provide warning leading up to the expected impacts of an incident for 150,000 people, including accessible tools to take appropriate actions. **Response:** During the first 72 hours of an incident's impact,	Provide information in a timely manner, consistent with the threat or hazard, to enable people to take appropriate protective measures.

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
		inform 150,000 people by all means necessary, including accessible tools to take appropriate actions.	
Common	**Operational Coordination**	Establish and maintain unified and coordinated operational structure and process over 300 square miles within 12 hours of an incident.	Establish and maintain unified and coordinated operational structure and process in the impacted area within 12 hours of a potential or actual incident.
Prevention	**Forensics and Attribution**	Prioritize chemical identification and determining source of origin in accordance with standard protocols and procedures to assist in preventing initial or follow-on terrorist acts.	Prioritize evidence collection and analysis to assist in preventing initial or follow-on terrorist acts.
Prevention and Protection	**Intelligence and Information Sharing**	Promptly receive and share relevant, timely, and actionable classified and unclassified information according to standard procedures and protocols with Federal, State, Local, and private partners with appropriate classified/unclassified products.	Promptly share relevant, timely, and actionable information and analysis with Federal, State, Local, and private partners with appropriate classified/unclassified products.

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
Prevention and Protection	**Interdiction and Disruption**	Interdict 100% of specific conveyances, cargo, and persons consistent with established protocols in cooperation with Federal, State, and Local law enforcement resources associated with an imminent threat to the State of Columbia.	Interdict 100% of specific conveyances, cargo, and persons associated with an imminent threat to the State of Columbia.
Prevention and Protection	**Screening, Search, and Detection**	Screen 13,200 persons associated with an imminent terrorist threat by using technical, nontechnical, intrusive, and nonintrusive means.	Screen 100% of targeted conveyances, cargo, and persons associated with an imminent terrorist threat using all means.
Protection	**Access Control & Identify Verification**	Verify access rights of 1,200 vendors and staff of the stadium in order to grant or deny access to specific locations or information.	Ensure 100% verification of identity to authorize, grant, or deny physical and cyber access to specific locations, information, and networks.
Protection	**Cybersecurity**	NA	Detect 100% of malicious activity directed against all critical infrastructure, key resources, and networks.

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
Protection	**Physical Protective Measures**	Protect 64 essential critical structures through means necessary to maintain structures, materials, products, and systems of key operational activities and facilities against an identified threat.	Protect people, structures, materials, products, and systems of key operational activities and critical infrastructure sectors against an identified or perceived threat.
Protection	**Risk Management for Protection Programs & Activities**	Update risk assessments for 64 essential critical infrastructure facilities.	Complete risk assessments for 100% of prioritized CI/KR assets.
Protection	**Supply Chain Integrity & Security**	Secure port, oil refinery, and all rail lines critical to supply nodes, transit, and materials.	Secure all identified priority supply nodes, transit methods, and materials.
Mitigation	**Community Resilience**	Implement risk mitigation plans for 100% of the communities in the impacted area. Coordinate both pre- and post-incident with all mission areas to identify specific jurisdictional vulnerabilities and facilitate activities to reduce risk.	Implement risk mitigation plans for communities with highest risk through partnerships with whole community representatives.

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
Mitigation	**Long-term Vulnerability Reduction**	Decrease the long-term vulnerability of 16 essential critical infrastructure (CI) facilities (including the dam) that were damaged and identify non-CI areas to be mitigated to protect citizens and property.	Achieve a measurable decrease in the long-term vulnerability of critical infrastructure systems, and community features that pose an increased risk of a similar incident.
Mitigation	**Risk & Disaster Resilience Assessment**	Update risk assessment with impacts on 300 square miles to understand the localized vulnerabilities and consequences for the State of Columbia.	Identify, analyze, and maintain risk assessment with localized vulnerabilities and consequences for the State of Columbia.
Mitigation	**Threats & Hazard Identification**	Update State of Columbia threats and hazards list to include hurricane impacts based on pertinent models available to estimate potential consequences in collaboration with whole community partners.	Identify State of Columbia threats/hazards in collaboration with whole community partners and incorporate into analysis and planning process.
Response	**Critical Transportation**	During the first 72 hours of an incident, establish physical access to deliver required resources to save lives and meet the needs of 300,000 people in the impacted area. During the first 60	During the first 72 hours of an incident, establish physical access through appropriate transportation corridors and deliver required resources to save lives and to meet

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
		days, reestablish the three light-rail systems. During the first 60 days, reestablish the two major highways.	the needs of disaster survivors.
Response	**Environmental Response/Health & Safety**	Within 72 hours, restore water treatment facilities to support environmental health and safety actions for response personnel and the affected population of 300,000 and within an area of 300 square miles. Within 30 days, clear debris from more than 300 square miles to support environmental health and safety actions for response personnel and the affected population of 300,000.	During the first 72 hours of an incident, conduct health and safety hazard assessments and disseminate guidance and resources, including the deployment of hazardous materials teams, to support environmental health and safety actions for response personnel and the affected population and area.
Response	**Fatality Management Services**	During the first 72 hours of an incident, conduct operations to recover 800 fatalities.	During the first 72 hours of an incident, conduct operations to recover fatalities.
Response	**Mass Care Services**	During the first 72 hours, shelter 75,000 people to meet the needs of disaster survivors, including individuals with	During the first 72 hours of an incident, move and deliver resources and capabilities to meet the needs of disaster

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
		access and functional needs and others who may be considered at risk. During the first 72 hours, feed 125,000 people to meet the needs of disaster survivors, including individuals with access and functional needs and others who may be considered at risk.	survivors, including individuals with access and functional needs and others who may be considered at risk.
Response	**On-Scene Security and Protection**	During the first 72 hours of an incident, establish a safe and secure environment for the 300-square-mile affected area.	During the first 72 hours of an incident, establish a safe and secure environment for the affected area.
Response	**Operational communications**	During the first 72 hours of an incident, restore seven damaged repeaters to ensure the capacity to communicate with both the emergency response community and the affected populations is sufficient; establish interoperable voice and data communications between responders.	During the first 72 hours of an incident, ensure that the capacity to communicate with both the emergency response community and the affected populations is sufficient; establish interoperable voice and data communications between responders.

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
Response	**Public and Private Services and Resources**	During the first 72 hours of an incident, mobilize and deliver governmental, nongovernmental, and private-sector resources within and outside of the affected area by restoring power generation to 25 damaged critical facilities to save lives, sustain lives, meet basic human needs, stabilize the incident, and transition to recovery, which may include moving and delivering resources and services to the 300,000 disaster survivors.	During the first 72 hours of an incident, mobilize and deliver governmental, nongovernmental, and private-sector resources within and outside of the affected area to save lives, sustain lives, meet basic human needs, stabilize the incident, and transition to recovery, which may include moving and delivering resources and services to disaster survivors.
Response	**Public Health & Medical Services**	During the first 72 hours of an incident, complete triage and initial stabilization of 3,000 casualties and begin definitive care for those likely to survive their injuries.	During the first 72 hours of an incident, complete triage and initial stabilization of casualties and begin definitive care for those likely to survive their injuries.
Response	**Situational Assessment**	During the first 72 hours of an incident, restore eight critical nodes that provide situational awareness in order to deliver information sufficient	During the first 72 hours of an incident, deliver information sufficient to inform decision makers regarding immediate life-saving and -

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
		to inform decision makers regarding immediate life-saving and life-sustaining activities. Engage governmental, private, and civic-sector resources within and outside of the affected area to meet basic human needs and stabilize the incident.	sustaining activities and engage governmental, private, and civic-sector resources within and outside of the affected area to meet basic human needs and stabilize the incident.
Response and Recovery	**Infrastructure Systems**	During the first 72 hours of an incident, stabilize immediate critical infrastructure impacts to four heavily damaged hospitals, four lost fire stations and apparatus, four lost police station and vehicles. This includes providing support to the 300,000 disaster survivors that may be affected by cascading effects and mass care support facilities and evacuation processing centers with a focus on life-sustainment and congregate care services over the impact area with the affected population.	During the first 72 hours of an incident, decrease and stabilize immediate infrastructure threats to the affected population to include survivors in the heavily damaged zone, nearby communities that may be affected by cascading effects, and mass care support facilities and evacuation processing centers with a focus on life-sustainment congregate care services over the impact area to the affected population.

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
Recovery	**Economic Recovery**	Within 6 months of an incident, develop a plan in concert with whole community partners, with a specific timeline to restore 60 community infrastructure sites (grocery stores, banks, etc.) to contribute to resilience, accessibility, and sustainability.	Within 60 days of an incident, conduct a preliminary assessment of economic issues and identify potential inhibitors to fostering stabilization of the affected communities. Within 6 months of an incident, develop a plan with whole community partners, with a specified timeline for redeveloping community infrastructure to contribute to resiliency, accessibility, and sustainability.
Recovery	**Health & Social Services**	Within 60 days of an incident, restore four hospitals, 10 community health facilities, and a psychiatric institution to restore basic health and social services	Within 60 days of an incident, restore basic health and social services functions.

State of Columbia Capability Targets (Continued)

	Core Capability	Capability Target	Desired Outcomes
Recovery	**Housing**	Within 60 days of an incident, identify housing needs and then determine available options for temporarily housing for up to 75,000 people sheltered and plan for permanent housing for 1,000 households.	Within 60 days of an incident, assess preliminary housing impacts and needs, identify currently available options for temporary housing, and plan for permanent housing.
Recovery	**Natural & Cultural Resources**	Within 60 days of an incident, mitigate impacts and stabilize natural and cultural resources by removing 1,250,000 cubic yards of vegetative debris, 500,000 cubic yards of construction debris, and 250,000 cubic yards of hazardous debris; repairing 12 historic sites; and restoring 10% of personnel records/key documents that were destroyed.	Within 60 days of an incident, mitigate impacts and stabilize natural and cultural resources and conduct a preliminary assessment of the impacts that identifies protections needed in place during the various stages of incident management—from stabilization through recovery.

Unit 4: The Planning Process

Visual 1: Unit 4: The Planning Process

Unit 3: The Planning Process



Key Points

Unit 4 presents information on the emergency planning process.

This unit should take approximately 5 hours and 10 minutes.

Topic	Time
Unit Introduction	3 minutes
Emergency Planning Process	2 minutes
Step 1: Form A Collaborative Planning Team Activity 4.1 – Engaging the Whole Community (Visual 7) Activity 4.2 – Planning Team (Visual 8)	50 minutes
Step 2: Understand the Situation Activity 4.3 – Jurisdiction Profile (Visual 18)	60 minutes
Step 3: Determine Goals and Objectives Activity 4.4 – Goals and Objectives (Visual 22)	25 minutes
Step 4: Plan Development Activity 4.5 – Annexes (Visual 36)	120 minutes
Step 5: Plan Preparation, Review, and Approval	10 minutes
Step 6: Plan Implementation and Maintenance Activity 4.6 – Your EOP (Visual 43)	35 minutes
Unit Summary	5 minutes
Total Unit Time:	**5 hours, 10 minutes**

Visual 2: Unit Objectives

- Describe the emergency planning process as defined in Comprehensive Preparedness Guide (CPG) 101
- Identify the content of an emergency operations plan (EOP) as defined in CPG 101
- Plan a threat/hazard/incident-specific annex to an EOP
- Identify individual action steps for emergency operations planning

Key Points

Review the unit objectives.

Visual 3: Emergency Planning Process



Key Points

This unit covers the six steps in the emergency planning process, as described in CPG 101:

Step 1: Form a Collaborative Planning Team

Step 2: Understand the Situation

Step 3: Determine Goals and Objectives

Step 4: Develop the Plan

Step 5: Prepare and Review the Plan

Step 6: Implement and Maintain the Plan

Visual 4: Step 1: Form a Collaborative Planning Team

- Identify a core planning team
- Engage the whole community in planning



Key Points

The first step in emergency planning is to form a collaborative planning team.

By developing a collaborative planning team, jurisdictions or other organizations engage the whole community in the planning effort. Building the team is one of the most important efforts in the planning process because the trust and working relationships fostered by participating together as members of the team will:

Pay dividends in more comprehensive and creative planning
Extend into operations when the same people work together during emergencies

Visual 5: Benefits of a Collaborative Team

Forming a collaborative planning team:

- Expands membership to include the entire community
- Builds relationships and improves trust
- Extends the relationships to operations
- Improves the planning effort



Key Points

Forming a collaborative planning team:

- Builds and expands membership on the core planning team to include representatives of the entire community
- Builds relationships and improves trust, both of which will be valuable assets during an actual emergency/operations
- Extends the relationships to operations
- Improves the planning effort because the full resources of the community are tapped

A community benefits from the participation of a diverse variety of stakeholders in the planning process. Some tips for assembling the team include the following:

- **Plan ahead.** The planning team should receive adequate advance notice regarding the location and time of the planning meeting. If time permits, ask the team members to identify time(s) and place(s) that work for them.
- **Provide information about team expectations.** Planners should explain why participating on the planning team is important to the participants' agencies and to the community itself, showing how contributions lead to more effective operations. In addition, planners should outline the budget and other project management concerns early in the process.
- **Ask the elected or appointed official or designee to sign the meeting announcement.** A directive from the executive office carries the authority of the elected and/or appointed official. The directive notifies the participants of their expected attendance and participation and the importance of operational planning to the community.
- **Allow flexibility in scheduling after the first meeting.** Not all team members need to attend all meetings. In some cases, task forces or subcommittees can complete the work. When the planning team uses this option, it should provide project guidance (e.g., timeframes, milestones) but let the subcommittee members determine when it is most convenient to meet.
- **Consider using external facilitators.** Third-party facilitators can perform a vital function by keeping the process focused and mediating disagreements.

Job Aid 8: Potential Members of a Community Planning Team

Individuals/Organizations	What They Bring to the Planning Team
Senior Official (elected or appointed) or designee	Support for the homeland security planning process Government intent by identifying planning goals and essential tasks Policy guidance and decision-making capability Authority to commit the jurisdiction's resources
Emergency Manager or designee	Knowledge about: • Planning techniques • Interaction of the tactical, operational, and strategic response levels • Prevention, protection, response, recovery, and mitigation strategies for the jurisdiction • Existing mitigation, emergency, continuity, and recovery plans
Emergency Medical Services (EMS) Director or designee	Knowledge about: • Emergency medical treatment requirements for a variety of situations • Treatment facility capabilities • How EMS interacts with the EOC and Incident Command Specialized personnel and equipment resources.
Fire Services Chief or designee	Knowledge about: • Fire department procedures, on-scene safety requirements, hazardous materials response requirements, and search and rescue techniques • The jurisdiction's fire-related risks Specialized personnel and equipment resources
Law Enforcement Chief or designee	Knowledge about: • Police department procedures, on-scene safety requirements Local laws and ordinances, explosive ordnance disposal methods, and specialized response requirements, such as perimeter control and evacuation procedures • Prevention and protection strategies for the jurisdiction. • Fusion centers and intelligence and security strategies for the jurisdiction Specialized personnel and equipment resources

Job Aid 8: Potential Members of a Community Planning Team (Continued)

Individuals/Organizations	What They Bring to the Planning Team
911 Call Center Director	Knowledge of dispatch policies and procedures Familiarity with staffing and surge capability
Public Works Director or designee	Knowledge about the jurisdiction's road and utility infrastructure. Specialized personnel and equipment resources
Legal Counsel	Knowledge of: • Local, Tribal, and State legal authorities • Contract law, case law, etc.
Public Health Officer or designee	Records of morbidity and mortality Knowledge about: • The jurisdiction's surge capacity • Historic infectious disease and disease surveillance • Infectious disease sampling procedures
Acute Care/Hospital representatives	Injury and illness care • Understanding of the special medical needs of the community
Hazardous Materials Coordinator	Knowledge about: • Hazardous materials that are produced, stored, or transported in or through the community • U.S. Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and U.S. Department of Transportation (DOT) requirements for producing, storing, and transporting hazardous materials and responding to hazardous materials incidents
Hazard Mitigation Specialist	Knowledge about planning techniques Knowledge of: • Current and proposed mitigation strategies • Available mitigation funding • Existing mitigation plans
Transportation Director or designee	Knowledge about: • The jurisdiction's road infrastructure • The area's transportation resources Familiarity with the key Local transportation providers Specialized personnel resources

Job Aid 8: Potential Members of a Community Planning Team (Continued)

Individuals/Organizations	What They Bring to the Planning Team
Agriculture Extension Service	Knowledge about the area's agricultural sector and associated risks (e.g., fertilizer storage, hay and grain storage, fertilizer and/or excrement runoff)
School Superintendent or designee	Knowledge about: • School facilities • Threats/hazards that directly affect schools Specialized personnel and equipment resources (e.g., buses)
Social Services Agency representatives	Knowledge about populations with functional needs
Local Federal Asset representatives	Knowledge about: • Specialized personnel and equipment resources that could be used in an emergency • Potential threats to or hazards at Federal facilities (e.g., research laboratories, military installation. Facility security and response plans (to be integrated with the jurisdiction's emergency operations plan

Visual 6: Be Inclusive

- Build on the whole community approach
- Include formal and opinion leaders:
    - Civic leaders
    - Members of the public
    - Representatives of community-based organizations and the private sector



Key Points

Disasters begin and end locally. After the response is over, it is the local community that lives with the decisions made during the incident. Therefore, communities should have a say in how disaster response occurs. They should also shoulder responsibility for building their community's resilience and enhancing its recovery before, during, and after a disaster. The community may have capabilities and resources that do not exist in the volume needed, or at all, within the traditional government response structure.

When building a planning team, be inclusive.

- Build on the whole community approach established for THIRA
- Include both formal leaders and opinion leaders. Opinion leaders on the planning team will have an emphatic influence on the success of the planning effort.
- Be sure the team includes:
    - Civic leader
    - Members of the public
    - Community groups, including disability services, advocacy organizations, and private-sector programs

Visual 7: Activity 4.1 – Engaging the Whole Community

Instructions: Working in your table groups…

- Complete Activity 4.1 Worksheet in your student manual
- Record your answers on the chart paper
- Be prepared to report to the class in 15 minutes

Activity 4.1 Worksheet

Instructions: Indicate below the community segment assigned to your team:

- Persons with disabilities or other access and functional needs
- Nonprofits, NGOs, and other community organizations
- Private sector—retail, small businesses, and large employers
- Owners and operators of critical infrastructure
- Schools, colleges, and universities

Develop a list of strategies for engaging this community segment in emergency planning. (How would you get them to the table and keep them involved?)

Record your strategies below or on the provided chart paper:

Visual 8: Activity 4.2 – Your Planning Team

Instructions: Working Individually…

- Complete Activity 4.2 Worksheet in the IAW
- Share your answers with the class

Visual 9: Step 2: Understand the Situation

- Understand risk
- Identify threats and hazards
- Create threat/hazard profiles
- Compile jurisdiction information
- Analyze and organize the information
- Use the results of risk analysis



Visual 10: Identifying Threats and Hazards

Identify threats and hazards that can affect your jurisdiction, including:

- **Natural:** Result from acts of nature
- **Technological:** Involve accidents or the failures of systems and structures
- **Human-caused:** Due to intentional actions of an adversary

Key Points

The first task in step 2 is to identify and research threats and hazards that can affect the jurisdiction, including natural (results from acts of nature), technological (Involve accidents or the failures of systems and structures), and human-caused (intentional actions of an adversary) threats and hazards. Examples of each type of threat/hazard were presented in Job Aid 6.

The information can be compiled in a database record such as the one in Job Aid 9.

Many technological tools are available to support the analysis of natural threats and hazards, including Geographic Information Systems (GIS) and modeling and predictive tools (HAZUS-MH, CAMEO, ALOHA, and Community Flu).

Job Aid 9: Identifying Threats and Hazards –

Natural	Technological	Human-Caused

Visual 11: Identifying Threats and Hazards (Continued)



Key Points

The research that went into identifying threats and hazards under Hazard Identification and Risk Assessments (HIRAs) and THIRA should provide a good foundation for this step and a lot of valuable information on which to build. The outputs of the THIRA, feed into various steps within the planning process.

Another way to think of it is that the THIRA is the "food" for the planning process.

Jurisdictions may need to do additional research on threats and hazards to ensure that the jurisdiction will be ready for the full range of possibilities, from routine emergencies to catastrophic events.

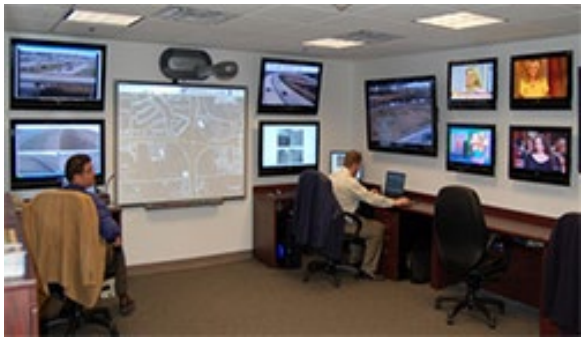
Visual 12: Resources

What resources do you have for learning about threats and hazards of concern to your jurisdiction?

Visual 13: Creating Threat/Hazard Profiles

Threat/hazard profiles enable the planning team to:

- Identify threats/hazards requiring special attention
- Identify required response actions
- Determine resources needs



Key Points

After identifying threats and hazards, the next task is to research the threat/hazard and create (or update) a profile for each threat/hazard. Having such profiles enables the planning team to:

- Assess risk and identify threats/hazards requiring special attention.
- Determine what actions must be planned for and what capabilities are required.
- Decide what resources are likely to be needed.

Job Aid 10 lists many resources that can be useful in researching threats and hazards.

Remember: THIRA lays the foundation. You may need to plan and exercise for additional threats and hazards—not just those "of greatest concern."

Job Aid 10: Resources for Threat/Hazard Research

Natural Threats/Hazards

General

Local Meteorologists
The National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) has a vast array of information on storms and other weather threats and hazards, including:

- Outlooks, watches, and warnings
- Forecasts
- Severe weather monitoring
- Climate monitoring
- Threat/hazard maps
- Radar
- Educational and outreach programs

National Weather Service (http://www.weather.gov/)

Floods

FEMA's National Flood Insurance Program:
The Flood Insurance and Mitigation Administration (FIMA), a component of the Federal Emergency Management Agency (FEMA), manages the National Flood Insurance Program (NFIP). The three components of the NFIP are:

- Flood Insurance.
- Floodplain Management.
- Flood Hazard Mapping

Nearly 20,000 communities across the United States and its territories participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities. Community participation in the NFIP is voluntary.

Flood insurance is designed to provide an alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.

Job Aid 10: Resources for Threat/Hazard Research (Continued)

Floods (Continued)

Flood damage is reduced by nearly $1 billion a year through communities implementing sound floodplain management requirements and property owners purchasing flood insurance.

Additionally, buildings constructed in compliance with NFIP building standards suffer approximately 80 percent less damage annually than those not built-in compliance.

In addition to providing flood insurance and reducing flood damages through floodplain management regulations, the NFIP identifies and maps the Nation's floodplains. Mapping flood hazards creates broad-based awareness of the flood hazards and provides the data needed for floodplain management programs and to actuarially rate new construction for flood insurance.

The National Flood Insurance Program (https://www.fema.gov/national-flood-insurance-program)

U.S. Geological Survey:

The U.S. Geological Survey (USGS) provides resources on flood-related topics, including:

- Controlled flooding.
- Threats/hazards.
- Hydrology.
- Surface water (nonmarine).
- Watershed management.

U.S. Geological Survey (https://www.usgs.gov/)

USGS National Streamflow Information Program (NSIP) (https://www.usgs.gov/centers/utah-water-science-center/science/streamflow-information-program)

USGS Flood Tracking Chart Builder (http://waterwatch.usgs.gov/index.php?id=flood/floodtracking/sid=w__map/floodtracking/r=nd)

National Hydrologic Warning Council (http://hydrologicwarning.org/)

The National Hydrologic Warning Council (NHWC), with membership across the United States and around the world, is a nonprofit organization dedicated to assisting emergency and environmental management officials by providing expert advice on the use of real-time, high-quality hydrologic information from automated remote data systems, with the goals of protecting lives, property, and the environment.

Job Aid 10: Resources for Threat/Hazard Research (Continued)

Wildfire

U.S. Forest Service provides tools and information related to fire management, including:

- Fire news.
- Interactive fire maps.
- National fire outlooks.
- Educational materials.
- Incident management situation reports.
- Wildland fire statistics.

Earthquake

U.S. Geological Survey Earthquake Hazards Program:

> This Web site is provided by the U.S. Geological Survey's (USGS's) Earthquake Hazards Program as part of our effort to reduce earthquake hazard in the United States. This program is part of the USGS Geologic Discipline and is the USGS component of the congressionally established, multiagency National Earthquake Hazards Reduction Program (NEHRP).
>
> The USGS participates in the NEHRP with FEMA, the National Institute of Standards and Technology (NIST), and the National Science Foundation (NSF). In the 2004 reauthorization of NEHRP by Congress, NIST was given the lead role to plan and coordinate this national effort to mitigate earthquake losses by developing and applying earth science data and assessments essential for land-use planning, engineering design, and emergency preparedness decisions.
>
> Available features include:

Earthquake information by region: Earthquake Hazards Program (https://earthquake.usgs.gov/)

Shakemaps (https://earthquake.usgs.gov/data/shakemap/)

Job Aid 10: Resources for Threat/Hazard Research (Continued)

Earthquake

FEMA's National Earthquake Hazards Reduction Program (NEHRP):

NEHRP leads the Federal Government's efforts to reduce the fatalities, injuries, and property losses caused by earthquakes. Congress established NEHRP in 1977, directing that four Federal agencies coordinate their complementary activities to implement and maintain the program. These agencies are FEMA, the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF), and the U.S. Geological Survey (USGS).

The NEHRP agencies pursue the goals of the program through collaboration with each other and numerous partners. In addition to other Federal agencies, program partners include State and Local governments, universities, research centers, professional societies, trade associations, and businesses, as well as associated councils, commissions, and consortia.

NEHRP's work encompasses research, development, and implementation activities. The program develops strategies, tools, techniques, and other measures that can reduce the adverse effects of earthquakes, and facilitates and promotes implementation of these measures, thereby strengthening earthquake resilience among at-risk communities.

NEHRP: (http://www.nehrp.gov/)

Public Health

- ESF #8: Public Health and Medical Services
- Departments of Public Health (all levels)
- Local health care system
- U.S. Department of Health and Human Services
- U.S. Department of Agriculture
- American Red Cross
- National Disaster Medical System (NDMS)
- Strategic National Stockpile (SNS)

Centers for Disease Control and Prevention (CDC):

Health Alert Network (HAN):

Provides health alerts, health advisories, updates, and info service messages to State and Local health officers, Public Information Officers, and others.

Emergency Preparedness and Response (http://emergency.cdc.gov/HAN/)

Job Aid 10: Resources for Threat/Hazard Research (Continued)

Public Health

Snap Shots of State Population Data (SNAPS) (https://emergency.cdc.gov/)

- Provides Local-level community profile information nationwide
- Can be browsed by county, State, and zip code
- A valuable tool when responding to public health emergency events at the State, tribal, and Local levels

U.S. Department of Agriculture (USDA) (https://www.usda.gov/)

USDA Emergency Preparedness and Response: Animal emergencies and disaster planning. Other topics (search by topic)—for example:

- H1N1 influenza
- Avian influenza
- Food security resources

Animal and Plant Health Investigation Service (APHIS)
(https://www.aphis.usda.gov/aphis/home/)

> In addition to protecting the health of livestock, poultry, and crops from foreign diseases and pests, APHIS also works closely with FEMA to provide assistance and coordination during emergencies.

The Emergency Preparedness and Response page contains numerous resources for emergency managers, including the following:

- APHIS Releases Mobilization Guide
- APHIS Emergency Response Fact Sheet
- Emergency Support Function 11
- Information for Industry and State Partners
- Saving Pets Saves Lives
- Animal Health Response

Job Aid 10: Resources for Threat/Hazard Research (Continued)

Technological Threats/Hazards

Hazardous Materials Resources

EPA Web Site (https://www.epa.gov/emergency-response/epas-role-emergency-response): The EPA Web site has a wealth of information for emergency management personnel about hazardous materials. For example, links on the Emergency Management Programs page include:

- **Environmental Response Laboratory Network (ERLN):** EPA's National Network of laboratories that can be accessed as needed to support large-scale environmental responses.
- **Emergency Planning and Community Right-to-Know Act (EPCRA) Requirements:** These requirements help communities prepare for and respond to chemical accidents by requiring facilities to report chemical storage and release information and communities to develop emergency response plans.
- **Emergency Response and Cleanup Actions:** EPA coordinates and implements a wide range of activities to ensure that adequate and timely response measures are taken in communities affected by hazardous substances and oil releases.
- **Facility Response Plan (FRP) Rule:** As part of the Oil Pollution Prevention regulation, some facilities that store and use oil must prepare and submit plans to respond to a worst-case discharge of oil and to a substantial threat of such a discharge.
- **Local Governments Reimbursement (LGR) Program:** EPA's program helps Local governments pay for emergency response measures.
- **National Contingency Plan (NCP) Subpart J Product Schedule:** Subpart J provides for a schedule of dispersants, other chemicals, and other spill mitigating devices and substances that may be authorized for use on oil discharges.
- **Reporting Oil Discharges and Hazardous Substance Releases:** Regulated facilities must report discharges of oil or releases of hazardous substances to EPA, other Federal agencies, and/or State and Local government agencies.
- **Risk Management Plan (RMP):** Facilities that produce, handle, process, distribute, or store certain chemicals must develop and report to EPA an accident prevention plan including a threat/hazard assessment, a prevention history, and an emergency response program.

Job Aid 10: Resources for Threat/Hazard Research (Continued)

Hazardous Materials Resources

LEPCs and SERCs
ESF #10: Oil and Hazardous Materials
U.S. Coast Guard (USCG) National Strike Force
National Response System (NRS)
Toxics Release Inventory:

> The Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of more than 600 toxic chemicals from thousands of United States facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment. This Web site allows you to search by zip code for information about releases in your jurisdiction.
>
> TRI Search: (https://www.epa.gov/enviro/tri-search)

Critical Infrastructure and Key Resources Information

National Infrastructure Protection Plan (NIPP):
(http://www.dhs.gov/xlibrary/assets/NIPP_Plan.pdf)

> The National Infrastructure Protection Plan provides the unifying structure for the integration of a wide range of efforts for the enhanced protection and resiliency of the Nation's critical infrastructure and key resources (CIKR) into a single national program. The overarching goal of the NIPP is to build a safer, more secure, and more resilient America by preventing, deterring, neutralizing, or mitigating the effects of deliberate efforts by terrorists to destroy, incapacitate, or exploit elements of our Nation's CIKR and to strengthen national preparedness, timely response, and rapid recovery of CIKR in the event of an attack, natural disaster, or other emergency.

DHS Critical Infrastructure Learning Series (https://www.dhs.gov/critical-infrastructure-learning-series)

> The Critical Infrastructure Learning Series offers 1--hour web-based seminars that provide presentations by senior critical infrastructure protection experts on the tools, trends, issues, and best practices for infrastructure protection and resilience.
>
> Series offerings are available at no cost and are highly recommended for the DHS private- sector and government partners, including critical infrastructure owners and operators, and officials with responsibility for risk, security, and emergency management functions.

Job Aid 10: Resources for Threat/Hazard Research (Continued)

Human-Caused Threats/Hazards

Terrorism

InfraGard (https://www.infragard.org/) is an information sharing and analysis effort serving the interests and combining the knowledge base of a wide range of members. At its most basic level, InfraGard is a partnership between the FBI and the private sector. InfraGard is an association of businesses, academic institutions, State and Local law enforcement agencies, and other participants dedicated to sharing information and intelligence to prevent hostile acts against the United States. InfraGard Chapters are geographically linked with FBI Field Office territories.

The National Counterterrorism Center (NCTC) (https://www.nctc.gov/) was established by Presidential Executive Order 13354 in August 2004, and codified by the Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA). NCTC serves as a central and shared knowledge bank on known and suspected terrorists and international terror groups. The NCTC Report on Terrorism provides information on terrorist trends.

National Consortium for the Study of Terrorism and Responses to Terrorism (START) (http://www.start.umd.edu/gtd/)

- Research center based at the University of Maryland.
- Committed to scientific study of the causes and human consequences of terrorism in the United States and around the world.
- Provides the Global Terrorism Database, an open source that allows you to search by location, perpetrator, attack type, weapon, and target type.

Visual 14: Creating Threat/Hazard Profiles (Continued)

For each threat/hazard, identify:

- Likelihood/frequency of occurrence
- Consequences (impact on capabilities)
- Warning time
- Special planning considerations



Key Points

Key information for threat/hazard profiles includes:

Likelihood and frequency. How often is the hazard likely to occur in your jurisdiction?
Consequences (the expected impact on the jurisdiction's capabilities). The impact may range:

- From catastrophic (e.g., a threat/hazard resulting in deaths and/or more than 50 percent of property severely damaged, overwhelming the jurisdiction's capabilities to respond and recover)
- To negligible (e.g., a threat/hazard resulting in minor injuries and/or less than 10 percent of property severely damaged, falling well within the jurisdiction's capabilities to respond and recover with existing resources).

Warning time (how fast the threat/hazard can impact the public). This time interval may be minimal, with little or no warning before the hazard occurs, or more than 24 hours advance warning may be possible, depending on the hazard.
Special planning considerations. For example, a public health emergency might require vaccination and vector control capabilities; a hazardous materials release might require the capability to evacuate affected areas; and a terrorist act might lead to inundation of hospitals because of the fear factor, thereby stressing medical care capabilities.

Other factors include:

- Magnitude—How severe is the hazard likely to be?
- Location—What areas of the jurisdiction are most likely to be affected?
- Area—How much of the jurisdiction is likely to be affected?
- Duration—How long can the threat/hazard be expected to last?
- Seasonality—Is the threat/hazard more likely to occur during a specific time of the year?

Job Aid 11 includes an example of a simple form that can be used to record the information.

Job Aid 11: Threat/Hazard Profile Worksheet

This worksheet can be used to record information about a threat/hazard. Your jurisdiction may have its own format, or you may wish to develop a form that works for you.

Threat/Hazard Type	
Likelihood	**Circle one of the following:** Highly likely (near 100% in the next year) Likely (between 10% and 100% probability in the next year) Possible (between 1% and 10% probability in the next year) Unlikely (less than 1% probability in the next year) Is there a seasonal pattern? No Yes (Specify when incidents occur here): _____
Consequences	**Circle one of the following:** Catastrophic impact on jurisdiction capabilities Critical impact on jurisdiction capabilities Limited impact on jurisdiction capabilities Negligible impact on jurisdiction capabilities **Are any areas of the community more likely to be affected? If so, which areas?**
Warning Time	**Circle one of the following:** Minimal or no warning 6-to-12 hours warning 12-to-24 hours warning More than 24 hours warning
Special Planning Considerations	

Visual 15: Facts vs. Assumptions

Risk assessments generate facts and assumptions.

- **Facts** are verified pieces of information, such as laws, regulations, terrain maps, population statistics, resource inventories, and prior occurrences
- **Assumptions** are elements of information accepted by planners as true in the absence of facts; assumptions enable planners to envision expected conditions in an operational environment



Key Points

Risk assessments generate facts and assumptions.

- Facts are verified pieces of information, such as laws, regulations, terrain maps, population statistics, resource inventories and prior occurrences
- Assumptions are elements of information accepted by planners as true in the absence of facts; Assumptions enable planners to envision expected conditions in an operational environment.

Research increases the proportion of facts over assumptions!

As plans are implemented, planners replace assumptions with facts from the actual situation. For example, when producing a flood annex, planners may assume the location of the water overflow, size of the flood hazard area and speed of the rise in water. If a flood event does occur, the actual data should inform an update to the assumptions in the plan. The improved understanding of the community's situation in light of the risk assessment can help planners determine response goals and objectives (Step 3), identify response courses of action (Step 4), evaluate the validity of the plan (Step 5), and exercise the plan and identify training requirements (Step 6).

Visual 16: Jurisdiction Information

Review and update the jurisdiction profile, including:

- Population demographics
- Property types and location
- Geographic characteristics
- Area(s) likely to be affected
- Infrastructure
- Resource base
- Current capability levels
- Impact of threats/hazards on jurisdiction capabilities



Key Points

The next task in understanding the situation is to compile information about the jurisdiction and develop (or update) the jurisdiction profile. Include such information as:

- Demographics:
  - Population in the affected area, including people with disabilities with access and functional needs or with other requirements relevant to emergency planning
  - Animal populations, including household pets, service animals, and livestock
- The type(s) of property in the area and their locations
- Geographic and topological characteristics that could affect the impact of threats/hazards on the jurisdiction or could affect emergency operations
- Areas likely to be affected by the different threats/hazards
- Infrastructure in the affected area
- The jurisdiction's resource base (both in the jurisdiction and in jurisdictions with which there are mutual aid agreements, standby contracts, emergency management assistance compacts (EMACs), and other agreements)
- Current capability levels relative to the capability targets identified in THIRA
- Likely impact of threats/hazards on jurisdiction capabilities

These types of jurisdiction information are useful for emergency planning. For example, a jurisdiction with a large number of residents with limited English proficiency might need to identify methods by which language assistance will be provided (e.g., bilingual personnel, interpreters, translated documents) to support operations, such as evacuation, sheltering, and recovery. Additionally, planners need to work with social services agencies to plan for unaccompanied minors and to identify types of resources needed for the community's children during and following a disaster.

Visual 17: Sources of Jurisdiction Information

- State, tribal, and local hazard mitigation plans
- Regional and state information centers
- Hazard maps from Federal and state agencies
- Local planning and zoning department
- Tax assessor
- Building inspection office
- Local public works or civil engineering department

Key Points

A number of resources are available outside of the jurisdiction for gathering information about your jurisdiction. Other resources are available from within the jurisdiction and will vary from one jurisdiction to the next. Examples of sources are listed on the visual.

Visual 18: Activity 4.3 - Jurisdiction Profile

Instructions:

Working Individually…

- Complete Activity 4.3 Worksheet in the IAW
- Share your answers with the class

Visual 19: Step 3: Determine Goals & Objectives

Goals and objectives:

Are based on:

- Capabilities for responding to and recovering from high-risk and/or high-impact threats/hazards
- Likely response constraints, demands, or needs associated with the threat/hazard

Should include:

- Determine operational priorities
- Set goals and objectives

Key Points

Planners may use the incidents that have the greatest impact on the jurisdiction (worst-case), those that are most likely to occur, or an incident constructed from the impacts of a variety of risks.

During the process of building an incident scenario, the planning team identifies the capability requirements generated by the threat or hazard, by the response, and by constraints/restraints.

Capabilities can stem from the nature of the threat or hazard and the required actions in response to the threat/hazard. An example is the potential need for emergency refueling during a large-scale evacuation.

A **constraint** is something that must be done ("must do"), while a **restraint** is something that prohibits action ("must not do"). They may be caused by a law, regulation, or management directive; some physical characteristic (e.g., terrain and road networks that make east-west evacuations impossible); or resource limitations.

Operational priorities specify what the responding organizations are to accomplish to achieve a desired end-state for the operation. By using information from THIRA and the risk profile developed as part of the analysis process, the planning team establishes how the threat or hazard would evolve in the jurisdiction and what defines a successful outcome for responders, disaster survivors, and the community—in other words, what capabilities are required to successfully manage the situation.

Visual 20: Goals and Objectives

Use relevant capability targets from THIRA as the basis for establishing goals and objectives

Goals:

- Broad, general statements of what personnel and equipment are supposed to achieve
- Help identify when major elements of the response and recovery are complete and when the operation is successful

Objectives:

- Specific and identifiable actions that participants in the operation must accomplish
- Lead to achieving response goals and determining the actions that participants in the operation should accomplish

Key Points

Goals and objectives describe the desired outcomes and interim steps to achieve them. Clearly specifying goals and objectives and having buy-in from all partners fosters unity of effort and consistency of purpose across the individuals and organizations involved in executing the plan.

Goals are general statements that describe the intended outcomes. Often expressed as descriptions of the desired outcome, State, Local, Tribal, Territorial, and Insular area goals are what personnel and equipment resources are intended to achieve. Goals help identify when major elements of the response and recovery are complete and when the operation is successful.

Objectives are specific and identifiable actions carried out during the operation. They lead to achieving response goals and determining the actions that participants in the operation should accomplish. Translating these objectives into activities leads to the development of courses of action as well as the capability estimate (see Step 4).

EOP Objectives and Incident Objectives

The objectives for an EOP that planners identify should not be confused with incident (or EOC) objectives, which incident commanders (or the unified commands) establish during actual incident operations as a step-in incident action planning.

- EOP objectives are typically broad and define what the EOP should achieve
- Incident objectives identify the specifics of what the incident commander or unified command wants to achieve during the next one or more operational periods

Some EOPs or hazard-specific annexes include suggested incident or EOC objectives for the initial operational periods for incident commanders, unified commands or EOC leadership to use or modify.

Visual 21: Goals and Objectives Example

Capability Target:	Goals:	Objectives:
Within 72 hours, rescue: • 2,500 people in 500 completely collapsed buildings • 5,000 people in 1,000 non-collapsed buildings • 10,000 people in 2,500 buildings • 500 people from collapsed light structures	Safely rescue the greatest number of people possible within the shortest time	Responders will search 500 completely collapsed buildings and rescue 2,500 people within 72 hours after an earthquake

Visual 22: Activity 4.4 – Goals and Objectives

Instructions:

Working individually…

- Complete Activity 4.4 Worksheet in the IAW
- Share your answers with the class



Visual 23: Step 4: Develop the Plan

- Develop and analyze courses of action
- Identify resources
- Identify information and intelligence needs

Key Points

Develop and analyze courses of action

This step involves generating, comparing, and selecting possible solutions for achieving the goals and objectives identified in Step 3. Planners consider requirements, goals and objectives to develop several response alternatives, essentially asking, "How are we going to accomplish our objectives?" The art and science of planning help determine how many solutions or alternatives to consider; however, planning teams should always consider at least two options. Developing only one solution may speed the planning process, but it could result in an inadequate response.

When developing courses of action, planners depict how an operation unfolds by building a portrait of the incident's actions, decision points and participant activities. This process helps planners identify tasks that occur immediately at incident initiation, tasks that are focused mid-incident and tasks that affect long-term operations. The planning team should use tools that help members visualize operational flow, such as a whiteboard, sticky note chart or project management or planning software. Community lifelines are another useful resource that can inform planning team efforts. The lifelines framework can help planners as they identify and prioritize potential actions to stabilize lifelines by re-establishing key services or developing contingency options.

Developing a course of action follows these steps:

- Estimate a timeline
- Identify and depict decision points
- Identify and depict operational tasks
- Select courses of action

These steps can be addressed using a number of methods. The method selected for developing a course of action is less important than ensuring the outcome of each step is derived.

Identify resources

Once courses of action are selected, the planning team identifies resources needed to accomplish tasks without regard to resource availability. The object is to identify the resources needed to make the operation work. Once the planning team identifies all the requirements, they begin matching available resources to requirements. By tracking obligations and assignments, the planning team determines resource shortfalls and develops a list of needs that private suppliers or

other jurisdictions (e.g., mutual aid partners) might fill. The resource base should include a list of facilities vital to emergency operations and indicate how individual hazards might affect the facilities.

Whenever possible, planners should match resources with other geographical or regional needs to identify multiple demands for the same or similar resources and resolve conflicts. This step provides planners an opportunity to identify and communicate resource shortfalls to higher levels of government and prepare draft resource requests, as appropriate.

The EOP should also account for unsolvable resource shortfalls, so they are not disregarded. The capability estimate process is essential to this effort. A capability estimate is a planner's assessment of a jurisdiction's ability to take a given course of action.

Capability estimates:

- Help planners decide if a course of action is realistic and supportable
- Help planners project and understand what might take place during an operation
- Inform the resource section of the plan or annex
- Ultimately determine whether a given course of action is feasible for the jurisdiction.

Planners can capture capability estimates as documents, tables or presentations and use them for both current and future operational planning.

At a minimum, planners should prepare capability estimates for personnel, administration and finance, operational organizations (e.g., fire, law enforcement, EMS), logistics, communications, equipment and facilities. Capability estimates should identify the criteria to evaluate each area; facts and assumptions that affect those areas; and the issues, differences and risks associated with a course of action.

Identify information and intelligence needs

Another outcome from developing courses of action is a list of the information needs for each of the response participants. Planners should identify the information they need and the deadline(s) for receiving it to drive decisions and trigger actions. The planning team should capture these needs.

Visual 24: EOP Format

Various formats can be used:

- Emergency Support Function (ESF) Format
- Traditional Format
- Agency or Department Focused Format

What format is used for your plan?

Key Points

An Emergency Operations Plan (EOP) is a public document that describes what the Local government will do when conducting emergency operations. The plan addresses:

- Protection of people and property
- Assignment of responsibility for specific emergency actions
- Identification of personnel, equipment, facilities, supplies, and other resources within the jurisdiction or by agreement with other jurisdictions
- Coordination of authority and activity among the agencies within the jurisdiction and other organizations

The EOP is the primary example used in this course; however, there are other plans to which these steps can apply.

Visual 25: Common EOP Sections

Basic Plan: Broad information relevant to whole plan, including policies, organization, and assignments

Supporting Annexes: Methods, procedures, actions of critical operational functions

Threat/Hazard/Incident-Specific Annexes: Response strategies for specific situations

Key Points

Various formats can be used for the EOP. Three are described below. None are mandatory unless specified in State requirements.

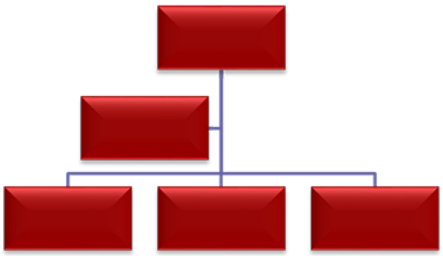
Format	Description
Traditional Format	Most commonly used EOP format Three major sections: the basic plan, supporting annexes, and threat/hazard/incident-specific annexes
Emergency Support Function (ESF) Format	Used in the NRF and in many State-level EOPs. Begins with a basic plan, includes unique annexes that support the whole plan, addresses individual ESF annexes, and attaches separate support or incident annexes
Agency- or Department-Focused Format	Often used by very small communities Addresses each departments or agency's tasks in a separate section Includes the basic plan, lead and support agency sections, and threat/hazard/incident-specific procedures for the individual agencies.

What format is used for your plan?

Visual 26: Basic Plan

Provides an overview of the emergency management and response program by:

- Documenting emergency response policies
- Describing the response organization
- Assigning tasks



Key Points

The basic plan section in each format type provides an overview of the jurisdiction's emergency management and response program by:

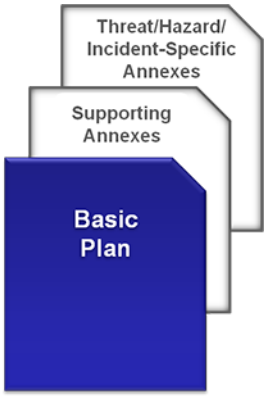
- Documenting emergency response policies
- Describing the response organization
- Assigning tasks

The basic plan guides the development of the supporting operational and function-based annexes of the EOP.

The organizational structure used for the basic plan also should carry over to the annexes.

Visual 27: Elements of the Basic Plan

- Introductory Material
- Purpose, Scope, Situation, Assumptions
- Concept of Operations (CONOPS)
- Organization, Assignment of Responsibilities



Key Points

Elements of a Basic Plan: Introductory Material, Purpose, Scope, Situation, Assumptions, Concept of Operations (CONOPS) Organization, Assignment of Responsibilities, Direction, Control, Coordination, Information Collection, Analysis, Dissemination, Communications, Administration, Finance, Logistics, Plan Development, Maintenance, Authorities, References

An EOP is a public document, although some parts of the plan may contain sensitive information and may not be suitable for release to the public.

Some States require a Comprehensive Emergency Management Plan (CEMP), which is similar. Some States have templates to be used in creating the plan.

EOPs also must comply with the Americans with Disabilities Act.

Job Aid 12 provides a checklist that describes each element of the basic plan.

Job Aid 12: Basic Plan Content Checklist

This component of the EOP provides an overview of the jurisdiction's incident management program and its ability to prepare for, respond to, and recover from incidents/disasters/emergencies.

PROMULGATION DOCUMENT/SIGNATURE PAGE

This component is a signed statement formally recognizing and adopting the plan as the jurisdiction's EOP.

Include a Promulgation Statement signed by the jurisdiction's senior elected or appointed official(s). (**Note:** This statement must be updated each time a new senior elected or appointed official takes office).

APPROVAL AND IMPLEMENTATION

The approval and implementation page introduces the plan, outlines its applicability, and indicates that it supersedes all previous plans.

- Include a delegation of authority for specific modifications that can be made to the plan and by whom they can be made WITHOUT the senior official's signature.
- Include a date and ensure that the page is signed by the senior official(s) (e.g., elected/appointed officials, fire chief, police chief, and emergency manager).

RECORD OF CHANGES

The record of changes is usually a table that (at a minimum) has fields that show a change number, the date of the change, and the name of the person who made the change. Other relevant information could be considered.

Record of Distribution

The record of distribution is usually a table with fields that indicate the title and the name of the person receiving the plan, the agency to which the receiver belongs, the date of delivery, and the number of copies delivered.

Table of Contents

This item outlines the plan's format, key sections, attachments, charts, etc.

List/identify the major sections/chapters and/or key elements within the EOP.

PURPOSE, SCOPE, SITUATION, ASSUMPTIONS

This section explains the plan's intent, whom it involves, and why it was developed.

Purpose

Describe the purpose for developing and maintaining an EOP (e.g., increase community resilience by building and sustaining core capabilities, coordinate local agency SOPs, define threat/hazard/ incident-specific procedures, outline roles and limitations).

Scope

Describe at what times or under what conditions this plan would be activated (e.g., major county disaster versus minor local emergency; major statewide disaster; human-caused incident within the local community, county, or State).

Situation Overview

Job Aid 12: Basic Plan Content Checklist (Continued)

This section provides a brief overview of the steps taken by the jurisdiction to prepare for disasters.

Threat/Hazard Analysis Summary

This section builds upon the THIRA and summarizes the major findings identified from a completed assessment of each threat/hazard likely to affect the jurisdiction. **Note:** The threat/hazard assessment information can be presented as a tab to the EOP or maintained as a part of the local THIRA or mitigation plan. In either case, this section needs to provide an overview of the analysis process and its results and then refer to the tab or the original assessment.

PURPOSE, SCOPE, SITUATION, ASSUMPTIONS (CONTINUED)

Threat/Hazard Analysis Summary (Continued)

- Summarize/identify the threats/hazards that pose a unique risk to the jurisdiction and would result in the need to activate this plan (e.g., threatened or actual natural disasters, technological incidents, or human-caused emergencies).
- Summarize/identify the probable high-risk areas (population, infrastructure, and environmental) that are likely to be affected by the defined threats/hazards (e.g., medical facilities, types/numbers of critical infrastructure facilities in floodplains or near chemical facilities).
- Summarize/identify the likelihood that the defined threats/hazards have occurred and will continue to occur within the community (e.g., historical frequency, probable future risk, national security threat assessments).
- Describe how the intelligence from threat analysis via State/Local fusion centers, joint terrorism task forces, national intelligence organizations, etc., has been incorporated into the jurisdiction's threat/hazard analysis.
- Describe how critical infrastructure/key resource protection activities have been incorporated into the threat/hazard analysis.
- Describe how agricultural; food supply; cyber security; chemical, biological, radiological, and/or nuclear explosive events; and pandemics (those located/originating in the jurisdiction, as well as a nonlocal, nationwide, or global event) have been assessed and incorporated into the jurisdiction's threat/hazard analysis.
- Describe the assumptions made and the methods used to complete the jurisdiction's threat/hazard analysis, including what tools or methodologies were used to complete the analysis (e.g., State and Local THIRAs, mitigation plan guidance, vulnerability assessment criteria, consequence analysis criteria).
- Include maps that show the high-risk areas that are likely to be affected by the identified threats/hazards (e.g., critical infrastructure within defined floodplains, earthquake fault zones, vulnerable zones for hazardous materials facilities/routes, or ingestion zones for nuclear power plants).
- Describe/identify the threats/hazards that could originate in a neighboring jurisdiction and could create hazardous conditions in the jurisdiction (e.g., watershed runoff, chemical incident, riot/terrorist act).

Job Aid 12: Basic Plan Content Checklist (Continued)

- Describe/identify the unique time variables that may influence the threat/hazard analysis and preplanning for the emergency (e.g., planned or seasonal events, how quickly the event occurs, the time of day that the event occurs).

Capability Assessment

Describe the process used by the jurisdiction to determine its capabilities and limits in order to prepare for and respond to the defined threats/hazards. **Note:** The jurisdiction may wish to address this topic as part of the threat/hazard/incident-specific sections. This decision would allow the jurisdiction to address the unique readiness issues and limitations for each specific threat/hazard. In this case, this section should provide an overview of the jurisdiction's capabilities and then refer the reader to the threat/hazard/incident-specific sections for more detailed information.

- Summarize the jurisdiction's prevention, protection, mitigation, response, and recovery capabilities involving the defined threats/hazards.
- Describe the jurisdiction's limitations on the basis of training, equipment, or personnel.

PURPOSE, SCOPE, SITUATION, ASSUMPTIONS (CONTINUED)

Capability Assessment (Continued)

- Describe the methods used and agencies involved in a formal capability assessment, including how often to conduct the assessment.
- Describe methods used and nongovernmental organizations (business, not-for-profit, community, and faith based) involved in formal community capability assessment, including how often to conduct the assessment.

Mitigation Overview

This section covers the actions taken in advance to minimize the impact that is likely to result from an emergency, including short- and long-term strategies. **Note:** Specific mitigation plans/guidance documents may be available from State emergency management agencies, the Federal Emergency Management Agency (FEMA), or the Department of Homeland Security (DHS).

- Provide a brief overview of the mitigation programs used locally to reduce the chance that a defined threat/hazard will affect the jurisdiction (e.g., moving facilities out of floodplain, installing surveillance cameras), including short- and long-term strategies.
- Identify potential prevention, protection, and mitigation strategies for high-risk targets.
- Describe the procedures used to develop jurisdiction-specific protection plans, including access control and identity verification; intelligence and information sharing; interdiction and disruption; physical protective measures; screening, search, and detection; supply chain integrity and security; and cyber security.
- Describe the procedures used to educate and involve the public in the mitigation programs (e.g., public education programs, jurisdiction fundraisers for mitigation activities).

Job Aid 12: Basic Plan Content Checklist (Continued)

- Describe the process and agencies used to develop mitigation plans and how these are coordinated with Local, State, tribal, and Federal agencies/plans.

Planning Assumptions

This section identifies what the planning team assumed to be facts for planning purposes in order to make it possible to execute the EOP.

CONCEPT OF OPERATIONS

- Describe who has the authority to activate the plan (e.g., emergency management agency office, chief elected official, State official, fire/police chief).
- Describe the process, templates, and individuals involved in issuing a declaration of emergency for a given threat/hazard and how the declaration will be coordinated with neighboring jurisdictions and the State.
- Describe how legal questions/issues are resolved as a result of prevention, protection, response, or recovery actions, including what liability protection is available to responders.
- Describe the process by which the emergency management agency office coordinates with all appropriate agencies, boards, or divisions within the jurisdiction.
- Describe how emergency plans take into account populations with disabilities or other access and functional needs and service or working animals.
- Describe how emergency plans take into account companion and farm animal care (e.g., for service animals for individuals with access or functional needs or agricultural education programs).
- Identify other response/support agency plans that directly support the implementation of this plan (e.g., hospital plans, facility plans).

ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

- Describe how roles and responsibilities will be determined for unaffiliated volunteers and how to incorporate these individuals into the emergency operation.
- Describe/identify what mutual aid and assistance agreements are in place for the quick activation and sharing of resources during an emergency. Examples of agreements that may exist include the following:
  - Agreements between response groups (e.g., fire and police, emergency medical/ambulance).
  - Agreements for additional resources/assistance between neighboring jurisdictions' response forces (e.g., fire, police, EMS).
  - Agreements for providing and receiving additional resources through the Emergency Management Assistance Compact.
  - Agreements for alert and notification and dissemination of emergency public information.
  - Resource agreements (e.g., outside assistance, personnel, equipment).
  - Agreements between medical facilities inside and outside the jurisdiction (e.g., using facilities, accepting patients).

Job Aid 12: Basic Plan Content Checklist (Continued)

- Evacuation agreements (e.g., use of buildings, restaurants, homes as shelters/lodging, relocation centers; transportation support), including agreements between jurisdictions for the acceptance of evacuees.

Note: Actual mutual aid and assistance agreements should not be included in the plan in their entirety. The EOP should only identify that the agreement exists and briefly summarize who is covered by the agreement, what goods or services are covered, and what limitations apply, if any.

Note: Mutual aid and assistance may also be addressed separately in each section of the EOP if the jurisdiction believes that such placement will help to better explain how that mutual aid/assistance directly supports a specific procedure.

- Describe how the jurisdiction maintains a current list of available National Incident Management System (NIMS) Typed Resources and Credentialed Personnel.
- Describe how all tasked organizations maintain current notification rosters, standard operating procedures, and checklists to carry out their assigned tasks.
- Provide a matrix that summarizes which tasked organizations have the primary lead versus a secondary support role for each defined response function.
- Describe the jurisdiction's policies regarding public safety enforcement actions required to maintain the public order during a crisis response, including teams of enforcement officers needed to handle persons who are disrupting the public order, violating laws, requiring quarantine, etc.

DIRECTION, CONTROL, AND COORDINATION

This section describes the framework for all direction, control, and coordination activities.

- Identify who has tactical and operational control of response assets.
- Discuss multijurisdictional coordination systems and processes used during an emergency.

INFORMATION COLLECTION AND DISSEMINATION

- Identify intelligence position (e.g., fusion center liaison) requirements for the emergency operations center's planning section.
- Describe plans for coordination between the planning section and the jurisdiction's fusion center.
- Describe information dissemination methods (e.g., verbal, electronic, graphics) and protocols.
- Describe critical information needs and collection priorities.
- Describe long-term information collection and dissemination strategies.
- Describe collaboration with the general public, to include sector-specific watch programs.

Job Aid 12: Basic Plan Content Checklist (Continued)

COMMUNICATIONS

This section describes communication protocols and coordination procedures used during incidents for communication between response organizations.

- Describe the framework for delivering communications support and how the jurisdiction's communications integrate into the regional or national disaster communications network.
- Identify and summarize separate interoperable communications plans.

ADMINISTRATION, FINANCE, AND LOGISTICS

Administration

This section describes administrative procedures used during an emergency operation.

Documentation is an administrative process used by a jurisdiction to document the response to and recovery from a disaster. **Note:** This information can also be discussed for each emergency response function or for the specific threats/hazards.

- Describe the process and agencies used to document the actions taken during and after the emergency (e.g., incident and damage assessment, incident command logs, cost recovery).
- Describe/summarize the reasons for documenting the actions taken during response and recovery (e.g., create historical records, recover costs, address insurance needs, develop mitigation strategies).
- Include copies of the reports that are required (e.g., cost recovery, damage assessment, incident critique, historical record).
- Describe the agencies and procedures used to create a permanent historical record of the event (after-action report) and include information identifying the actions taken, resources expended, economic and human impacts, and lessons learned as a result of the disaster.
- Describe/summarize the reasons for documenting the actions taken during response and recovery (e.g., create historical records, recover costs, address insurance needs, develop mitigation strategies).
- Include copies of the reports that are required (e.g., cost recovery, damage assessment, incident critique, historical record).
- Describe the agencies and procedures used to create a permanent historical record of the event (after-action report) and include information identifying the actions taken, resources expended, economic and human impacts, and lessons learned as a result of the disaster.

After-action review is an administrative process used by the jurisdiction to review and discuss the response in order to identify strengths and weaknesses in the emergency management and response program.

- Describe the reasons and need to conduct an after-action review (e.g., review actions taken, identify equipment shortcomings, improve operational readiness, highlight strengths/initiatives).

Job Aid 12: Basic Plan Content Checklist (Continued)

ADMINISTRATION, FINANCE, AND LOGISTICS (CONTINUED)

- Describe the methods and agencies used to organize and conduct an after-action review of the disaster, including how recommendations are documented to improve readiness (e.g., change plans/procedures, acquire new or replace outdated resources, retrain personnel).
- Describe the links and connections between the processes used to critique the response to an incident and the processes used to document recommendations for the jurisdiction's exercise program.
- Describe how the jurisdiction ensures that the deficiencies and recommendations identified during an after-action review are corrected/completed

  Finance

  This *section* describes finance procedures used to recover the costs incurred during an emergency operation.

- Describe/identify the various programs that allow local political jurisdictions and their response/support agencies to recover their costs (e.g., Small Business Administration, FEMA Public Assistance Program).
- Describe the procedures agencies follow to document the extraordinary costs incurred during response and recovery operations (e.g., personnel overtime, equipment used/expended, contracts initiated).
- Describe/identify the programs and how the jurisdiction assists the general public to recover their costs and begin rebuilding (e.g., Small Business Administration, unemployment, worker's compensation).
- Describe the methods used to educate responders and local officials about the cost recovery process.
- Describe the impact and role that insurance has in recovering costs (e.g., self-insurance, participation in the National Flood Insurance Program, homeowner policies).

  Logistics

  This section describes the logistics and resource management mechanisms used to identify and acquire resources in advance of and during an emergency operation, especially to overcome gaps possibly identified in a capability assessment.

- Describe/identify the procedures and agencies involved in using the existing threat/hazard analysis and capability assessment to identify what resources are needed for a response to a defined threat/hazard, including using past incident critiques to identify/procure additional resources.
- Describe/identify the steps taken to overcome the jurisdiction's identified resource shortfalls, including identifying the resources that are only available outside the jurisdiction (e.g., resources for hazardous materials response; water rescue; search and rescue; and chemical, biological, radiological, nuclear, or high-yield explosive incident response) and the procedures to request those resources.

Job Aid 12: Basic Plan Content Checklist (Continued)

ADMINISTRATION, FINANCE, AND LOGISTICS (CONTINUED)

- Provide a brief summary statement about specialized equipment, facilities, personnel, and emergency response organizations currently available to respond to the defined threats/hazards. Note: A tab to the plan or a separate resource manual should be used to list the types of resources available, amounts on hand, locations, and any restrictions on use.
- Describe the process used to identify private agencies/contractors that will support resource management issues (e.g., waste haulers, spill contractors, landfill operators). Identify existing memorandums of agreement or understanding and contingency contracts with these organizations.

PLAN DEVELOPMENT AND MAINTENANCE

This section describes the process used to regularly review and update the EOP.

- Describe how this plan was coordinated with the EOPs from adjoining/intrastate regional jurisdictions to include local political subdivisions that develop their own EOPs in accordance with State statute.
- Describe the process used to review and revise the plan each year, or more often if changes in the jurisdiction warrant (e.g., changes in administration or procedures, newly added resources/ training, revised phone contacts or numbers).
- Describe the responsibility of each organization/agency (governmental and nongovernmental) to review and submit changes to its respective portion(s) of the plan.
- Identify/summarize to whom the plan is distributed, including whether it is shared with other jurisdictions. Include a plan distribution list. Note: This list can be included as a tab to the plan.
- Describe/identify how or where the plan is made available to the public.
- Summarize the process used to submit the plan for review, coordination, and/or evaluation by other jurisdictions/organizations.
- Include a page to document when the changes are received and entered into the plan.

AUTHORITIES AND REFERENCES

- Identify/describe the Local, State, and Federal laws that specifically apply to the development and implementation of this plan, including (but not limited to) the following:
  - Local and regional ordinances and statutes
  - State laws or revised code sections that apply to emergency management and homeland security
  - State administrative code sections that define roles, responsibilities, and operational procedures
  - State Attorney General's opinions
  - Federal regulations and standards (e.g., Stafford Act, FEMA Policy, Patriot Act, National Fire Protection Association 1600).

Job Aid 12: Basic Plan Content Checklist (Continued)

AUTHORITIES AND REFERENCES (CONTINUED)

- Identify/describe the reference manuals used to develop the plan and/or help prepare for and respond to disasters or emergencies, including (but not limited to) the following:
  - General planning tools
  - Technical references
  - Computer software
- Identify/define the words, phrases, acronyms, and abbreviations that have special meanings with regard to emergency management and are used repeatedly in the plan.

Job Aid 13: Plan Review Rating Form

Instructions: Please indicate the current rating for each criterion by placing the appropriate number from the scale below in the Rating column. If the plan is currently in the initial stages of development and you are unable to evaluate certain criteria, please indicate 'N/A' in the Rating column. 1. The Plan / Annex is missing all of the specified characteristics. 2. The Plan / Annex minimally addresses the specified characteristics. 3. The Plan / Annex addresses some of the specified characteristics. 4. The Plan / Annex addresses most of the specified characteristics. 5. The Plan / Annex addresses all of the specified characteristics.	Rating
Adequacy. A plan is adequate if the scope and concept of planned operations identify and address critical tasks effectively; the plan can accomplish the mission while complying with guidance; and the plan's assumptions are valid, reasonable, and comply with guidance.	
Feasibility. A plan is feasible if the organization can accomplish the mission and critical tasks by using available resources within the time contemplated by the plan. The organization allocates available resources to tasks and tracks the resources by status (e.g., assigned, out of service). Available resources include internal assets and those available through mutual aid or through existing State, regional, or Federal assistance agreements. Specifically, the jurisdiction should complete a capability estimate that: Identifies the current status (e.g., training, quantity) of resources arrayed to support the plan. Analyzes the required resources based on the courses of action in the plan. Identifies the most supportable courses of action and ways to reduce the impact of resource deficiencies (example: mutual aid).	
Acceptability. A plan is acceptable if it meets the requirements driven by threats/hazards, meets decision-makers and publics cost and time limitations, and is consistent with the law. The plan can be justified in terms of the cost of resources and if its scale is proportional to mission requirements.	

Job Aid 13: Plan Review Rating Form (Continued)

Instructions: Please indicate the current rating for each criterion by placing the appropriate number from the scale below in the Rating column. If the plan is currently in the initial stages of development and you are unable to evaluate certain criteria, please indicate 'N/A' in the Rating column. 1. The Plan / Annex is missing all of the specified characteristics. 2. The Plan / Annex minimally addresses the specified characteristics. 3. The Plan / Annex addresses some of the specified characteristics. 4. The Plan / Annex addresses most of the specified characteristics. **5.** The Plan / Annex addresses all of the specified characteristics.	Rating
Completeness. A plan is complete if it: Incorporates all tasks to be accomplished Includes all required capabilities Provides a complete picture of the sequence and scope of the planned response operation (i.e., what should happen, when, and at whose direction) Integrates the needs of the general population, children of all ages, individuals with disabilities and others with access and functional needs, immigrants, individuals with limited English proficiency, and diverse racial and ethnic populations Makes time estimates for achieving objectives Identifies success criteria and a desired end-state	
Compliance. The plan should align with guidance and doctrine to the maximum extent possible, because these provide a baseline that facilitates both planning and execution. Compliance with CPG 101, Version 2.0 Consistence with CPG 201 (THIRA) Compliance with Other	

Source: This form is derived from the CPG 101, Version 2.0 – Process and Analysis Support Tool-March 2011 (https://www.fema.gov/pdf/about/divisions/npd/CPG_101_v2_past.pdf)

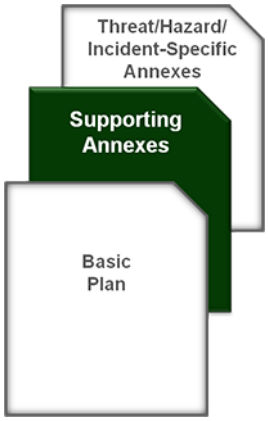
Visual 28: The EOP . . .



- Describes how people and property will be protected
- Details who is responsible for carrying out specific actions
- Identifies available resources
- Outlines how actions will be coordinated

Visual 29: Supporting Annexes

- Add specific information and direction
- May include functional, support, emergency phase, or agency-focused annexes
- Focus on critical operational functions
- Indicate specific responsibilities, tasks, and operational actions related to a particular function



Key Points

Supporting annexes add specific information and direction to the EOP. They may include functional, support, emergency phase, or agency-focused annexes.

Focus on critical operational functions. It is important to identify the functions that are critical to successful emergency response. These core functions become the subjects of the separate annexes. Indicate specific responsibilities, tasks, and operational actions related to a particular function. While no single list of functions applies to all jurisdictions, the core functions warrant special attention because they may require specific actions during emergency response operations.

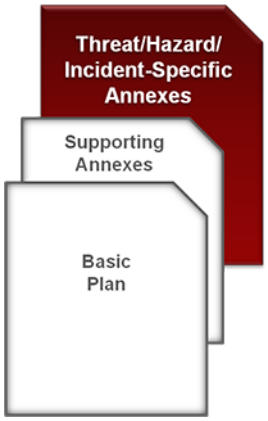
The following list of core functions is not comprehensive. Each jurisdiction must assess its own needs, and additional or different annexes should be prepared at the planning team's discretion.

- Direction, Control, and Coordination
- Information Collection, Analysis, and Dissemination
- Communications
- Transportation
- External Affairs/Emergency Public Information
- Population Protection
- Mass Care, Emergency Assistance, Housing, and Human Services
- Public Health and Medical Services
- Resource Management
- Continuity of Government/Operations
- CIKR Restoration
- Damage Assessment
- Firefighting
- Logistics Management and Resource Support
- Search and Rescue
- Oil and Hazardous Materials Response
- Agriculture and Natural Resources
- Energy
- Public Safety and Security
- Long-Term Community Recovery
- Financial Management
- Mutual Aid/Multi-Jurisdictional Coordination
- Private Sector Coordination
- Volunteer and Donations Management
- Worker Safety and Health
- Prevention and Protection

Visual 30: Threat/Hazard/Incident-Specific Annexes

- Focus on special planning needs generated by a threat, hazard, or incident
- Address unique or specific:
  - Response details
  - Risk areas and evacuation routes
  - Provisions for emergency public information
  - Protective equipment for responders

Include tabbed maps, charts, inventories, and other work aids



Key Points

Threat, hazard, or incident-specific annexes focus on special planning needs generated by individual threats/hazards. Threat/hazard- or incident-specific annexes usually:

- Contain unique and regulatory response details that apply to a single threat/hazard or type of incident
- Identify threat/hazard-specific risk areas and evacuation routes
- Specify provisions and protocols for warning the public and disseminating emergency public information
- Specify the types of protective equipment and detection devices for responders

Threat/hazard/incident-specific annexes follow the basic plan's content organization. They may include tabs that serve as work aids for items such as maps, charts, tables, checklists, resource inventories, and summaries of critical information.

Visual 31: Developing an Annex

- Focus on the special planning needs generated by the threat/hazard
- Include unique and regulatory response details related to the threat/hazard



Key Points

When developing a threat/hazard/incident-specific annex, focus on the special planning needs generated by the threat/hazard. Include unique and regulatory response details related to the threat/hazard.

Visual 32: Annex Organization

Follow the basic plan's content organization:

- Purpose, Scope, Situation Overview, and Planning Assumptions
- Concept of Operations (CONOPS)
- Organization and Assignment of Responsibilities
- Direction, Control, and Coordination
- Information Collection, Analysis, and Dissemination
- Communications
- Administration, Finance, and Logistics
- Plan Development and Maintenance
- Authorities and References

Key Points

The organization of the annex should follow the organization used in the basic plan. For example, if a traditional functional format for the EOP is used, the following topics would be also included in the annex:

- Purpose, Scope, Situation Overview, and Planning Assumptions
- Concept of Operations (CONOPS)
- Organization and Assignment of Responsibilities
- Direction, Control, and Coordination
- Information Collection, Analysis, and Dissemination
- Communications
- Administration, Finance, and Logistics
- Plan Development and Maintenance
- Authorities and References

Visual 33: Operations Information in an Annex

In the annex CONOPS section, provide threat/hazard-specific operations information, including:

- Assessment and control
- Unique prevention and protection actions
- Public warning
- Stabilization and recovery actions



Key Points

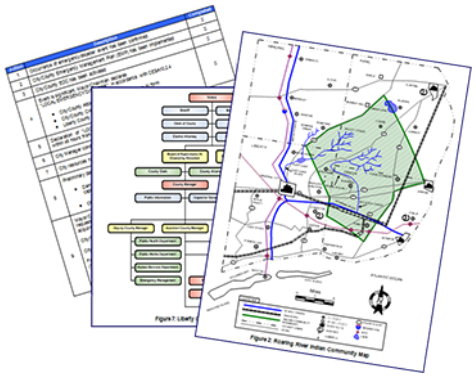
Operations information related to the threat/hazard is usually placed in the Concept of Operations (CONOPS) section of the annex. Include the following types of information:

- Assessment and control of the threat/hazard
- Unique prevention and protection actions to address the hazard
- Public warning
- Stabilization and recovery actions

Visual 34: Implementing Instructions

Annexes may include implementing instructions, as attachments or references:

- SOPs/SOGs
- Maps
- Charts and tables
- Forms
- Checklists



Key Points

Each annex, as well as the basic plan, may use implementing instructions in the form of standard operating procedures (SOPs), standard operating guidelines (SOGs), maps, charts, tables, forms, and checklists. These items may be included as attachments or references.

The EOP planning team may use supporting documents, as needed, to clarify the contents of the plan or annex. For example, a winter storm annex may be made clearer by attaching maps marked with snow emergency routes. A flood annex might include designated shelters outside the floodplain.

Visual 35: Tips for Plan Development

- Consider multiple solutions
- Address Who – What – Where – When for each solution
- Align procedures and resources to related capabilities identified in THIRA
- Identify what information/intelligence participants need to perform their tasks



Key Points

Tips for plan development include the following:

Consider multiple solutions. The art and science of planning helps determine how many solutions or alternatives to consider; however, at least two options should always be considered. Developing only one solution may speed the planning process, but it will probably provide for an inadequate response, leading to more damaging effects on the affected population or environment.

Address What-Who-Where-When for each solution.

- What is the action? What resources does the person/entity need in order to perform the action?
- Who is responsible for the action?
- Where are the potential impact areas, key facilities, resources, etc., located?
- When should the action take place? How long should the action take and how much time is actually available? What has to happen before? What happens after?

Align procedures and resources to related capabilities identified in THIRA. Remember, emergency planning should be capabilities-based, and capability estimates are critical to this effort. A capability estimate is a planner's assessment of a jurisdiction's ability to take a course of action. Capability estimates help planners decide if pursuing a particular course of action is realistic and supportable. They help planners better project and understand what might take place during an operation.

Identify what information and intelligence response participants need to perform their tasks. Planners should identify the information and intelligence they will need and their deadline(s) for receiving it to drive decisions and trigger critical actions.

Visual 36: Activity 4.5 – Annex Development

Instructions:

Working in your group…

- Briefly review the Liberty County EOP in the ESSD
- Complete the Activity 4.5 Worksheet in the student manual
- Share your answers with the class

Key Points

- Exercise Simulation System Document (ESSD)
  training.fema.gov/programs/essd/curriculum/1.html
- The Liberty County EOP is 8.0 Liberty County Basic Emergency plan – page 214 of the PDF version

Purpose: The purpose of this activity is to understand what is different in an annex versus a basic EOP and be able to identify threat/hazard/incident-specific annexes.

Scenario: You are part of a planning team that is updating the EOP for Liberty County. As part of that effort, the threat/hazard/incident-specific annexes listed in the Activity 4.5 Worksheet will be added. Your working group will be assigned one of those threats/hazards. As a team, develop an outline of the information and procedures you would include in your annex.

Activity 4.5 Worksheet

Instructions:

1. Indicate your group's assigned threat/hazard below:
   - Natural threat/hazard: Winter storm, earthquake, or wildfire (select one)
   - Natural threat/hazard: Public health threat (pandemic flu)
   - Technological threat/hazard: Hazardous materials release (transportation)
   - Human-caused threat/hazard: Terrorist act against a public venue
   - Human-caused threat/hazard: Cyber-attack on government systems
2. Develop an outline of the information and procedures you would include in your annex in the provided outline space below.

Your Outline

Activity 4.5 Worksheet (Continued)

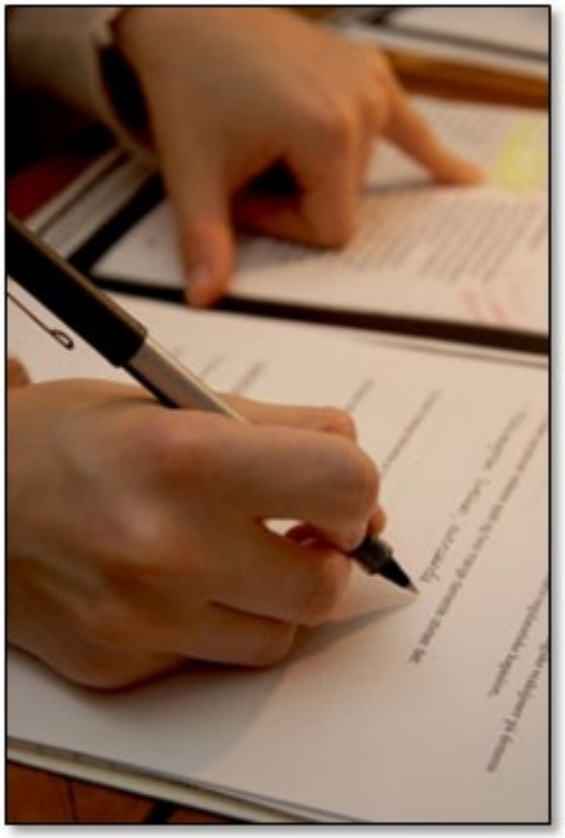
Activity 4.5 Worksheet (Continued)

1. Write the answer below. Identify who would you ask to assist with developing and writing this annex.

2. Write the answer below. Who would review and approve the annex?

Visual 37: Step 5: Prepare and Review the Plan

- Write the plan
- Review the plan
- Approve and disseminate the plan



Key Points

Plan preparation, review, and approval involves:

- Writing and validating the plan that was conceptualized in Step 4
- Reviewing the plan
- Approving and disseminating the plan

Visual 38: Writing Process

- Develop a plan outline
- Develop the content for the draft plan and annexes
- Develop the final draft



Key Points

The outline and rough draft of an EOP are based on the research and activities undertaken to develop viable strategies in the previous steps.

Develop the content of the draft basic plan and supporting and threat/hazard/incident-specific annexes as part of the outline and draft process.

Commit to a cycle of careful reviews to refine the plan and develop the final draft. Include all organizations with plan responsibilities and other stakeholders in the review process.

Visual 39: Tips for Writing the Plan

- Keep the language simple and clear
- Summarize important information with visual aids
- Avoid jargon and minimize acronyms
- Use short sentences and active voice
- Provide detail without speculation
- Format the plan for ease of use
- Focus on providing mission guidance
- Develop accessible tools and documents



Key Points

Follow these simple rules to write plans and procedures that readers and users can easily access and effectively use:

- Keep the language simple and clear by writing in plain English
- Summarize important information with checklists and visual aids, such as maps and flowcharts
- Avoid using jargon and minimize the use of acronyms
- Use short sentences and active, not passive, voice
- Provide enough detail to convey an easily understood plan that is actionable, taking into consideration the target audience and the amount of certainty about the situation
- Format the plan and organize its contents so that readers can quickly find solutions and options
- Focus on providing mission guidance (i.e., insight into intent and vision) rather than discussing policy and regulations, which can be documented in detail in SOPs/SOGs
- Develop accessible tools and documents (e.g., plans, fact sheets, checklists) that users can easily adapt or convert into alternate formats

Active vs. Passive Voice Sentences

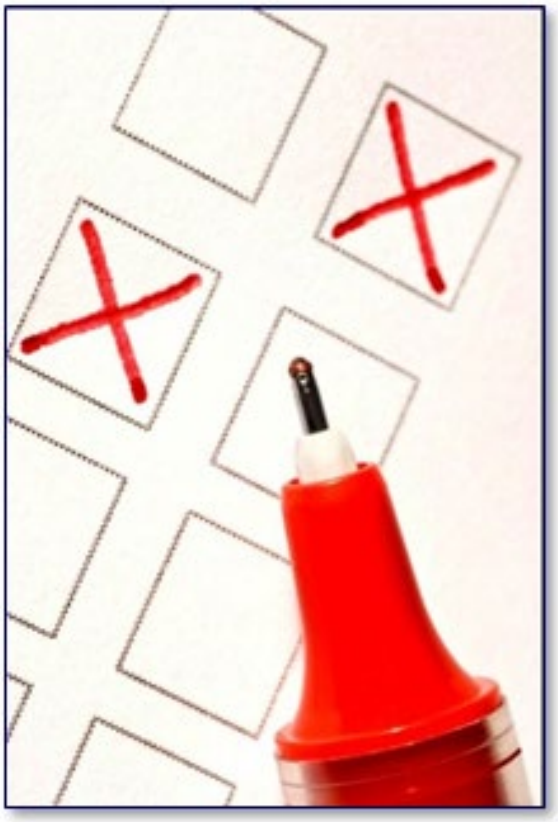
- Passive voice sentences are not always clear because they de-emphasize who or what is acting.
- The action happens to the subject. For example, “The EOC is then activated.”
- Active voice sentences are direct because they indicate the who or what that is doing the action. The subject performs the action.
- For example, “The emergency manager then activates the EOC.”

Use active voice sentences whenever possible in plans.

Visual 40: Validating and Approving the Plan

Review the plan. The plan must be:

- Adequate
- Feasible
- Acceptable
- Complete
- Compliant



Key Points

- Adequacy
  - The scope and concept of the plan's response or recovery operations identify essential tasks
  - The plan describes measures that accomplish the assigned mission and comply with pertinent guidance
  - The plan's assumptions are valid
- Feasibility
  - The organization can accomplish the assigned mission and critical tasks with available resources within the time contemplated by the plan.
  - The organization allocates resources to tasks and tracks the resources by status (e.g., assigned, out of service)
  - Available resources include internal assets and those available through mutual aid or through existing State, Local, Tribal, Territorial, and Insular area Regional or Federal assistance agreements.

- Acceptability
    - Meets the requirements driven by a threat or incident
    - Meets decision maker intent
    - Adheres to cost and time constraints
    - Is consistent with the law
- Completeness
    - Incorporates all tasks to be accomplished
    - Includes all required capabilities
    - Integrates the needs of the general population, children of all ages, individuals with disabilities and others with access and functional needs, immigrants, individuals with limited English proficiency, diverse racial and ethnic populations, and historically underserved communities
    - Provides a complete picture of the sequence and scope of the planned response operation (i.e., what should happen, when and at whose direction)
    - Includes time estimates for achieving objectives
    - Identifies success criteria and a desired end state
- Compliance
    - The plan should be consistent with guidance and doctrine, which provide a baseline that facilitates both planning and execution

Visual 41: Approve and Disseminate the Plan

- Approval from appropriate senior or elected officials
- Promulgate the plan
- Post plan as required by law
- Ensure all appropriate stakeholders have a copy of the plan

Key Points

Who in your community has authority to approve EOPs?

Once the plan has been validated, the planner should present it to the appropriate elected officials and obtain official approval to promulgate the plan.

Promulgation officially announces a plan. Promulgation should comply with pertinent statutes, laws, or ordinances. Obtaining the senior official's support and approval is vital to gaining acceptance for the plan. Promulgation also documents who has the authority to make changes to the plan.

Once the senior official grants approval, the planner should arrange to distribute the plan and maintain a record of the people and organizations that received it.

Sunshine laws may require that the jurisdiction post a copy of the plan on its website or place the plan in some other publicly accessible location. The plan should be available in alternate formats for wide accessibility and to remain compliant with relevant laws and policies (e.g., American with Disabilities Act).

Visual 42: Step 6: Implement and Maintain the Plan

- Train on the plan
- Exercise the plan
- Review, revise, and maintain the plan



Key Points

Step 6 of the planning process is plan implementation and maintenance. The tasks involved in this final step are:

Train on the plan

After developing a plan, organizations disseminate it and train their personnel on its content. Training equips individuals with the knowledge, skills, and abilities they need to perform their respective tasks as identified in the plan. Personnel should also receive training on organization-specific procedures necessary to implement the plan.

Additional training for relevant organizations helps implement the EOP. FEMA's National Training and Education System consists of a nationwide network of training providers who help build and sustain capabilities across multiple professional disciplines in emergency management, including planning. Through specialized training, emergency management personnel achieve critical skills and measurable capabilities, enabling jurisdictions and organizations to effectively plan for and have confidence in their personnel responding to emergencies, as well as those from other entities providing mutual assistance.

Finally, an informed public is also key to the successful implementation of the EOP. Public outreach and training can raise awareness within communities about important topics such as emergency information protocols, shelters and potential evacuation processes.

Exercise the plan

Evaluating the effectiveness of plans involves a combination of training events, exercises and real-world incidents to determine whether the goals, objectives, decisions, actions and timing outlined in the plan led to a successful response. In this way, homeland security and other

emergency preparedness exercise programs become an integral part of the planning process. Similarly, planners need to be aware of lessons and practices from other communities.

Exercising helps a planning team validate the EOP or supporting guidance to determine if the plan is adequate, feasible, acceptable, complete, and compliant. FEMA's Homeland Security Exercise and Evaluation Program (HSEEP) provides guiding principles for exercise programs and a consistent approach to exercise program management, design and development, conduct, evaluation and improvement planning.

HSEEP includes an integrated preparedness cycle that connects the jurisdiction's planning, organizing, equipping, training, exercising, evaluating, and improving through an Integrated Preparedness Planning Workshop and resulting Integrated Preparedness Plan that establishes multiyear preparedness priorities. Planners should consider using the results of the risk analysis conducted in Step 2 to guide preparedness priorities and activities and determine exercise needs. Planners should also consider how each element of the Integrated Preparedness Cycle--such as corrective actions; changes in the organization/jurisdiction structure and available equipment; and training needed to execute the EOP—relates to the EOP.

Exercises help responders and other response, and recovery partners understand the plan, the responsibilities and authorities of various players and the relationships among those players. Exercising also supports the premise that communities train as they expect to respond. Improvement planning helps a planning team identify specific areas for improvement and corrective actions for the EOP.

Improvement planning is based on collecting and analyzing exercise after-action reports, post-incident critiques, self-assessments, audits, administrative reviews or lessons learned. Through improvement planning, jurisdictions and organizations document areas for improvement and track implementation of corrective actions to improve plans, build and sustain capabilities, and improve preparedness. Following exercises and real-world events, the EOP planning team should discuss findings and consider whether and how to improve the EOP or supporting guidance.

For EOPs, corrective actions may involve revising planning assumptions and operational concepts, changing organizational tasks or modifying organizational implementing instructions (i.e., the SOPs/SOGs). Corrective actions may also involve providing refresher training. Ultimately, the planning team should assign responsibility for taking the corrective actions.

Review, revise and maintain the plan

This step completes this iteration of the planning process. It adds information gained through exercises and actual incidents to the research collected in Step 2 and starts the planning process over again. Plans should change and improve as jurisdictions learn lessons, obtain new information and insights and update priorities.

Planning teams should establish a process to review and revise the plan on a recurring basis. Some jurisdictions have found it useful to review and revise portions of their EOPs every month, while others accomplish their reviews annually.

Teams should consider reviewing and updating the plan after the following events:

- A major incident
- A change in operational resources (e.g., policy, personnel, organizational structures, management processes, facilities, equipment)
- A formal update of planning guidance or standards
- A change in elected officials
- Each time the plan is used
- Major exercises
- Changes in the jurisdiction's demographics or hazard or threat profile
- Changes in the jurisdiction's tolerance of identified risks
- The enactment of new or amended laws or ordinances

Visual 43: Tips for Plan Implementation

- Use training events, exercises, and real-world incidents to gauge success
- Use a remedial action process and tracking mechanism to correct problems
- Use lessons learned to update the EOP and THIRA
- Use other communities' lessons and practices to improve your plan



Key Points

When implementing the plan:

- Use training events, exercises, and real-world incidents to determine whether the plan led to a successful response.
- Use a remedial action process and tracking mechanism to correct any problems that are identified.
- Use lessons learned to update the EOP and THIRA.
- Be aware of lessons and practices from other communities and build on them to improve your own plan.

FEMA Training Resources to Support EOP Development and Maintenance
FEMA supports a nationwide emergency management training and education network. The network includes the Center for Domestic Preparedness, the Emergency Management Institute, the National Fire Academy, the Center for Homeland Defense and Security, the National Domestic Preparedness Consortium, the Rural Domestic Preparedness Consortium, the FEMA Continuing Training Grants program partners, and the FEMA Higher Education Program. Together, these organizations offer more than 600 courses covering a wide range of topics and skill levels. Instruction is delivered through on-campus courses, mobile delivery, and virtual training, such as independent study courses and webinars.

The following FEMA independent study courses are recommended for planning team members:

- IS-130: Exercise Evaluation and Improvement Planning
- IS-235: Emergency Planning
- IS-366: Planning for the Needs of Children in Disasters
- IS-368: Including People with Disabilities and Others with Access and Functional Needs in Disaster Operations
- IS-1300: Introduction to Continuity of Operations

Visual 44: Activity 4.6 – Your EOP

Instructions:

Working Individually…

- Complete Activity 4.6 Worksheet in the IAW
- Share your answers with the class



Visual 45: Unit Summary

CPG-101 provides guidance for emergency planning



Key Points

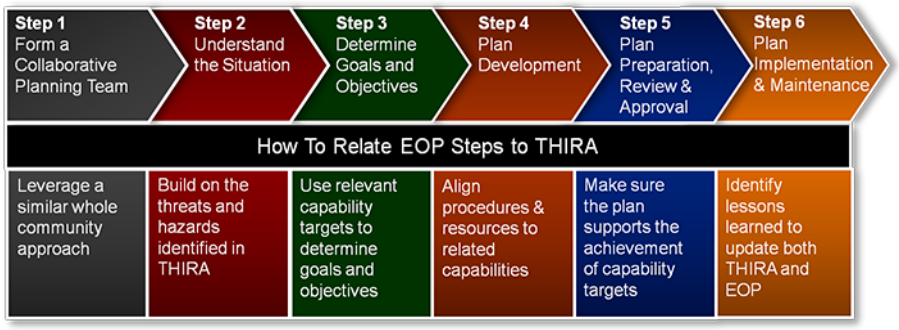
The planning process described in CPG 101 includes the following steps:

1. Form a Collaborative Planning Team
2. Understand the Situation
3. Determine Goals and Objectives
4. Develop the Plan
5. Prepare and Review the Plan
6. Implement and Maintain the Plan

The outputs of THIRA can be used at each step in this process to enhance the planning process and the planning outcomes.

Job Aid 14: Emergency Planning Process

Emergency Planning Process and THIRA



Step 1: Form a Collaborative Planning Team

By developing a collaborative planning team, jurisdictions or other organizations engage the whole community in the planning effort. Building the team is one of the most valuable efforts in the planning process because the trust and working relationships fostered by participating together as members of the team will:

Pay dividends in more comprehensive and creative planning.
Extend into operations when the same people work together during emergencies.

The following are examples of community officials and workers who might participate on the planning team:

- Senior Official (elected or appointed) or designee
- Emergency Manager or designee
- Emergency Medical Services (EMS) Director or designee
- Fire Services Chief or designee
- Law Enforcement Chief or designee
- Public Works Director or designee
- Public Health Officer or designee
- Hazardous Materials Coordinator
- Hazard Mitigation Specialist
- Transportation Director or designee
- Agriculture Extension Service representative
- School Superintendent or designee
- Social services agency representatives
- Local, Federal asset representatives
- Nongovernmental Organizations (NGOs) (includes members of National Voluntary Organizations Active in Disaster (NVOAD) and other private, nonprofit, faith-based, and community organizations)
- Local business and industry representatives
- Amateur Radio Emergency Services (ARES)/Radio Amateur Civil Emergency Service (RACES) Coordinator
- Utility representatives
- Veterinarians/animal shelter representatives, and State Animal Response Team (SART)

Step 2: Understand the Situation

This step is a problem-solving process consisting of the following activities:

Conducting research to identify threats and hazards
Developing (or updating) a jurisdiction profile
Analyzing the information to assess risks

Step 3: Determine Goals and Objectives

Goals and objectives are generated from the threat and hazard analysis and the capability targets developed during the risk assessment. These base goals and objectives are based on:

The capabilities needed in responding to and recovering from high-risk and/or high-impact threats/hazards
The likely constraints, demands, or needs associated with responding to the threat/hazard

After identifying the capability requirements and demands caused by the threat/hazard, the planning team restates them in terms of:

Determine operational priorities, indicating a desired end state for the operation
Response goal, indicating a general solution to the identified threat
Intermediate objectives, indicating specific actions carried out during the operation

Step 4: Develop the Plan

Plan development involves conceptualizing the plan, including:

Developing and analyzing courses of action
Identifying resources

The planning team relies on a problem-solving model to generate a range of possible solutions to achieve the goals and objectives developed in Step 3. One or more courses of action are then developed from the possible solutions. Courses of action may be:

Scenario-based, which involves analyzing the impact of a scenario to determine appropriate courses of action
Functional, which involves identifying the common tasks that a jurisdiction must perform during emergencies
Capabilities-based, which involves focusing on a jurisdiction's capacity to take a course of action

Often, planners use a hybrid planning approach that combines the three concepts.

Step 5: Prepare and Review the Plan

This step is where the actual written plan is created, based on the courses of action identified in the previous step. The plan is then reviewed and finalized, approved by the appropriate authorities, and disseminated.

Step 6: Implement and Maintain the Plan

In this step, the approved plan is put into action. This involves:

Having key personnel review the plan
Conducting training and exercises to evaluate the plan's effectiveness. A plan is effective when the goals, objectives, and activities identified in the plan lead to a successful response.
Compiling and analyzing feedback, and revising the plan as needed.
Maintaining the plan on an ongoing basis through periodic reviews, exercises, and revision cycles. This step brings us back to Step 1, and the planning cycle continues.

Unit 5: Emergency Operations Planning Activity

Visual 1: Unit 5: Emergency Operations Planning Activity

Unit 5: Emergency Operations Planning Activity



Key Points

Unit 5: Emergency Operations Planning Activity provides an opportunity to apply concepts learned in earlier units. This unit should take approximately 4 hours and 10 minutes to complete.

Topic	Time
Unit Introduction	1 minute
Activity Activity 5.1 Whole Community Planning (Visual 3)	180 minutes
Course Summary Activity 5.2 IAW Summary Activity (Visual 7)	35 minutes
Post-Assessment	30 minutes
Feedback	4 minutes
Total Unit Time:	**4 hours, 10 minutes**

Visual 2: Unit Objective

Analyze the effectiveness of an emergency operations plan in addressing the needs of the whole community and identify strategies to improve the plan



Key Points

Review the unit objective.

Visual 3: Activity 5.1 - Whole Community Planning

Instructions:

Working in your groups…

1. Using Activity 5.1 Worksheet as a guide, brainstorm how to better meet the needs of your assigned community segment in the updated plan

Key Points

Purpose: This activity provides an opportunity to evaluate an emergency operations plan and related materials from the standpoint of representing the whole community and to identify needed improvements when the plan is updated.

Instructions:

1. Review the scenario and instructions provided in Activity 5.1 Worksheet (located in the student manual).
2. Your team will be assigned one of the community segments identified in the worksheet.
3. As a team, complete the materials review and discussion as described in the worksheet for your assigned community segment.

Activity 5.1 Worksheet

Scenario: You are part of a planning team whose goal is to update the Liberty County Emergency Operations Plan and related planning materials (e.g., threat/hazard assessments, community profile).

The instructor will assign each team one of the community segments listed below. Your team will serve as a focus group. You will examine the materials from the perspective of a particular community segment and brainstorm how to better meet their needs in the updated plan.

1. Indicate your team's assigned community segment below:

- Children of all ages
- People in congregate living arrangements (e.g., dormitories, group homes, long-term care facilities, prisons)
- Homeless people and undocumented immigrants
- Individuals with disabilities and other access and functional needs
- People with limited English proficiency.

2. Who would you include in the planning team?

3. What steps will you recommend to ensure that this group is fully engaged in the planning process and that the end product (the plan) will address their needs?

4. As a group, discuss the planning considerations for your community segment. What are key issues that should be addressed for this group?

5. Review the current Liberty County materials, and answer the following questions:
    a. What must the revised plan include?

    b. What planning materials will you need to ensure the plan will fully represent the community segment?

2. To what extent does the plan, as written, meet these requirements? What should be added or changed to better represent this group? (Be specific)

Visual 4: Activity 5.1 - Whole Community Planning (Continued)



Team Reports:

- Who is on the team?
- How will you ensure engagement?
- What is your planning segment?
- What key issues should be addressed for the group?
- What must a revised plan include?
- What materials will you need?
- What needs to be changed?

Key Points

Report your group's findings.

Visual 5: Course Summary

- A key principle of emergency planning is the use of a logical and analytical problem-solving process to address the complexity and uncertainty of potential threats and hazards
- CPG 101 provides such a process:



Visual 6: Course Summary (continued)

- CPG 201 provides a process for identifying threats and hazards and assessing risks
- These processes are crucial to ensure preparedness and manage risks
- Community preparedness depends on the development of emergency operations plans that represent the needs of the whole community



Key Points

Do you have any questions about the concepts covered in this course?

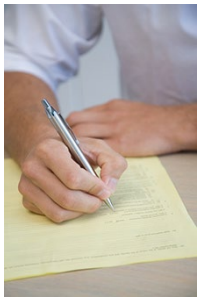
Visual 7: Activity 5.2 – IAW Summary Activity



Instructions:

1. Take a few minutes and consider your IAW, the answers you provided, and learning you participated in
2. Review the Action Plan Job Aid in the IAW
3. Share:
    a. One interesting skill or knowledge you learned in this class
    b. One thing you are going to do differently after learning information from this course
    c. One "To-Do" you identified for when you return to your jurisdiction

Visual 8: Post-Assessment



Instructions:

1. Take a few minutes to review the course contents in your Student Manual and Resource Manual
2. Next, complete the post-assessment
3. Be prepared to submit your post-assessment in 30 minutes

Key Points

The instructor will distribute the final exam.

Visual 9: Feedback



- Any other comments or questions?
- Please complete the course evaluation form.
- Your comments are important!
- Thank you for your participation.

Key Points

Congratulations! You have completed the course Planning: Emergency Operations. Thank you for your participation and for your contributions to the discussions.

We value your input. Please provide your feedback on the provided form.