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Course Overview

COURSE OVERVIEW

About This Course

All communities are vulnerable to a variety of hazards. Emergency management provides a structure for anticipating and dealing with emergency incidents.

Emergency management involves participants at all governmental levels and in the private sector. Activities are geared according to phases before, during, and after emergency events. The effectiveness of emergency management rests on a network of relationships among partners in the system.

This course is one in the Federal Emergency Management Agency (FEMA) Professional Development Series. The goal of this course is to introduce you to the fundamentals of emergency management as an integrated system, surveying how the resources and capabilities of all functions at all levels can be networked together in all phases for all hazards.

FEMA's Independent Study Program

FEMA's Independent Study Program is one of the delivery channels that the Emergency Management Institute (EMI) uses to provide training to the general public and specific audiences. This course is part of FEMA's Independent Study Program. In addition to this course, the Independent Study Program includes other courses in the Professional Development Series (PDS), as well as courses in floodplain management, radiological emergency management, the role of the emergency manager, hazardous materials, disaster assistance, the role of the Emergency Operations Center, and an orientation to community disaster exercises.

FEMA's independent study courses are available at no charge and include a final examination. You may apply individually or through group enrollment. When enrolling for a course, you must include your name, mailing address, social security number, and the title of the course in which you wish to enroll.

FEMA's Independent Study Program (Continued)

If you need assistance with enrollment, or if you have questions about how to enroll, contact the Independent Study Program Administrative Office at:

FEMA Independent Study Program
Administrative Office
Emergency Management Institute
16825 South Seton Avenue
Emmitsburg, MD 21727
(301) 447-1200

Information about FEMA's Independent Study Program also is available on the Internet at:

http://training.fema.gov/EMIWeb/IS

Each request will be reviewed and directed to the appropriate course manager or program office for assistance.

Course Completion

The course completion deadline for all FEMA Independent Study courses is 1 year from the date of enrollment. The date of enrollment is the date that the EMI Independent Study Office will use for completion of all required course work, including the Final Examination. If you do not complete this course, including the Final Examination, within that timeframe, your enrollment will be terminated.

Course Prerequisites

Principles of Emergency Management does not have any prerequisites.

Final Examination

This course includes a written Final Examination, which you must complete and return to FEMA's Independent Study Office for scoring. To obtain credit for taking this course, you must successfully complete this examination with a score of 75 percent or above. You may take the Final Examination as many times as necessary.

Unit 1: Course Introduction

COURSE INTRODUCTION

Introduction

When an emergency or disaster strikes, you work as part of a complex emergency management network that calls upon many functions, resources, and capabilities. Your ability to function effectively relates to your understanding of how the emergency management system works and how your agency fits into the network. This course will present the fundamental emergency management principles and provide opportunities for you to apply what you learn.

How to Complete This Course

This independent study course is designed so that you can complete it on your own, at your own pace. Take a break after each unit, and give yourself time to think about the material, particularly how it affects your work and some of the situations you have encountered as an emergency management professional.

On the other hand, this course may be done in a group setting guided by an instructor. This Independent Study can also be used in such groups.

Principles of Emergency Management contains nine units. Each unit is described below.

- **Unit 1, Course Introduction,** offers an overview of the course content.
- **Unit 2, Overview of the Integrated Emergency Management System,** presents an overview of the integrated emergency management system.
- **Unit 3, The Emergency Management Cycle,** describes the phases of the emergency management cycle.
- **Unit 4: The Plan as Program Centerpiece,** focuses on community-specific risks and describes the hazard analysis process, and links hazard analysis to the EOP.
- **Unit 5: Planning and Coordination,** addresses resource requirements, how to supplement resources, the ICS-EOC interface, and the connection between planning and emergency management.

How to Complete This Course (Continued)

- **Unit 6, Functions of an Emergency Management Program,** presents the core functions of an emergency management program.

- **Unit 7, Emergency Management Program Participants,** examines the role of the local emergency program manager and relationships with State and Federal emergency managers.

- **Unit 8, Applying Emergency Management Principles,** provides practice in applying emergency management principles in a problem-solving activity.

- **Unit 9, Course Summary,** summarizes the course content. At the conclusion of this unit, you will have an opportunity to evaluate the course and your success in meeting your personal learning goals.

Activities

This course will involve you actively as a learner by including activities that highlight basic concepts. It will also provide you with guidance on actions required in specific situations through the use of case studies. These activities emphasize different learning points, so be sure to complete all of them. Compare your answers to the answers provided following each activity. If your answers are correct, continue on with the material. If your answers are incorrect, go back and review the material before continuing.

Knowledge Checks

To help you know when to proceed to the next unit, Units 2 through 8 are followed by a Knowledge Check that asks you to answer questions that pertain to the unit content. The answers are given at the end of each knowledge check. When you finish each Knowledge Check, check your answers, and review the parts of the text that you do not understand. Do not proceed to the next unit until you are sure that you have mastered the current unit.

Appendix

In addition to the nine units, this course includes an appendix that contains an acronym list.

How to Complete This Course (Continued)

Final Examination

This course includes a written examination, which you must complete and return to FEMA's Independent Study Office for scoring. To obtain credit for taking this course, you much successfully complete this examination with a score of 75 percent or above. You may take the final examination as many times as necessary.

When you have completed all of the units, take the final examination online or use the answer sheet provided. EMI will score your test and notify you of the results.

Sample Learning Schedule



Complete this course at your own pace. If you are working independently, you should be able to finish the entire course—including knowledge checks, activities, and the final examination—in approximately 10 hours. This following learning schedule is only an example, intended to show relative times devoted to each unit.

Unit	Suggested Time
Unit 1: Course Introduction	30 minutes
Unit 2: Overview of the Integrated Emergency Management System	60 minutes
Unit 3: The Emergency Management Cycle	60 minutes
Unit 4: Roles of Key Participants	60 minutes
Unit 5: The Plan as Program Centerpiece	90 minutes
Unit 6: Planning and Coordination	120 minutes
Unit 7: Functions of an Emergency Management Program	60 minutes
Unit 8: Applying Emergency Management Principles	60 minutes
Unit 9: Course Summary	30 minutes

Unit 1 Objectives

After completing this unit, you should be able to:

- Relate the topics to your job and community.
- Determine a strategy for completing the course successfully.

Course Objectives

This course is designed to introduce you to the fundamentals of emergency management. At the conclusion of this course, you should be able to:

- Organize emergency management functions, organizations, and activities using concepts and terms explained in the course.
- Explain the all-hazard emergency management process that integrates the resources of local, tribal, State, and Federal governments and voluntary and business assets.
- Explain the local, tribal, State, Federal, and citizen roles in emergency management.
- Explain what citizens can do to protect themselves in emergencies.
- Describe the elements of an emergency management program.
- Discuss the role of individuals and organizations, as well as their relationships with one another, in emergency management.
- Explain the importance of networking to emergency management.
- Explain the social, political, and economic implications of a disaster.
- Recognize opportunities for self-help and empowerment in emergency management.
- Describe alternate models for organizing emergency management programs.



Case Study: Tornado In Barneveld, Wisconsin

The case study on the following pages illustrates the need for emergency management. Read the case study and answer the questions that follow.

On June 8, 1984, at 12:50 a.m., a devastating tornado struck the small village of Barneveld, Wisconsin. Although a tornado watch was in effect, no warning was issued because the tornado originated near the town. The town, which had approximately 580 residents, was literally flattened by winds in excess of 200 miles an hour. Casualties add up about 11% of the population: 9 lives were lost and 57 persons were treated for injuries. The storm destroyed 120 homes, 11 businesses, the village elementary school, 5 churches, and all of the municipal buildings, including a new fire station and the equipment in it. The village was left without electricity, telephone service, or water. Damage was estimated at over $20 million.

The local power company was in radio contact with the sheriff's office within 5 minutes and was moving trucks into the area within 40 minutes, encountering such hazardous conditions as exposed fuel oil and LP tanks. The telephone company set up an emergency bank of phones. Both companies needed several days to complete repairs. A command post was established to coordinate emergency operations. Local officials immediately began to clear debris from the stricken area. Police, fire, and emergency medical personnel concentrated their efforts on search and rescue operations for those who were trapped in collapsed structures. The village was evacuated to another town where congregate care was set up by the Red Cross, which also assisted in preliminary damage assessment.

The town received State assistance immediately. The State patrol directed traffic and assisted in securing portions of the affected area, and the National Guard assisted in security and law enforcement, as well as emergency operations. The Department of Natural Resources assisted in security, traffic control, and recovery operations. The State Department of Health and Social Services supported the county social service offices, which were quickly overwhelmed with requests for assistance. The State response was coordinated through the EOC, which was also dealing with other tornado damage.

The State requested Federal assistance on June 9, and it was granted. The disaster assistance center was located 20 miles from the town to serve victims in other locations as well. Because few residents had cars in working order, transportation to the center was difficult. Many residents were angered to find that emergency loans required several months to process. Having no way to earn a living, many left the village.

The after-action plan noted that the county had no plan for debris removal, and that combustibles and noncombustibles should have been separated. There was no plan for a systematic turn-off of gas or for identification of hazardous materials and toxic substances. There was no plan designating who would be in charge of cleanup, although the highway commissioner eventually took this role. The best site for disposal had not been predesignated. With 20-20 hindsight, officials realized that each county's emergency program manager should identify landfills in advance and mark out procedures for getting burning permits.

Case Study: Tornado In Barneveld, Wisconsin

The town also lacked a plan to coordinate volunteer agencies. While there were many volunteers, no one was clearly in charge.

While our case study has focused on short-term effects, such a disaster can shatter a local economy and change the lives of residents for years. The emotional damage of living through such a disaster is less obvious than the physical devastation, but no less real. Providing emotional support to residents and helping them reconstruct their lives, including the economic base for their community, is a critical part of the recovery phase of any such emergency.

---

1. What effects can an emergency have on a small community—in this case, Barneveld, Wisconsin?

2. What kinds of emergency services are needed during and after an emergency?

3. What effects do emergency planning activities have on the response to a disaster such as the tornado and recovery from it?

Your Place in the Emergency Management System

Normally, you work in a setting where day-to-day responsibilities are clear and lines of communication are well-established through experience.

However, you also are part of a complex network of people and organizations responsible for dealing with emergencies in your local community. It is important that when the need arises, you know where you fit into that network and how to work within it.



Case Study: Hazardous Chemical Release

The case study that follows will help you think about where you fit into your community's emergency management network. Read the following description of a hazardous chemical release.

Think about what your role might be in such an incident. Your community may be exposed to a similar risk from hazardous chemical spills because of nearby rail lines, highways, or chemical plants or you may have responded to a similar incident.

When you have finished reading the case study, answer the questions that follow.

A freight train derailed in the upper Midwest in January 2002, in a county with a population of 60,000. Fifteen of the cars on the train contained anhydrous ammonia. (Anhydrous means "without water." Anhydrous ammonia seeks water from any source—even the human body. The compound will, therefore, seek the moisture in the eyes, nose, mouth, and lungs, causing caustic burns as it dissolves into body tissue. Inhaling large amounts of anhydrous ammonia will cause swelling of the throat and suffocation. Anhydrous ammonia is transported as a liquid under pressure.)

When the train derailed, eight of the fifteen cars ruptured, causing an explosion of the pressurized chemical. The force of the explosion sent one piece of a car slicing into a house a mile away. The blast caused the release of 240,000 to 290,000 gallons of anhydrous ammonia gas—the largest release in the world to date.

The incident occurred at 3:00 AM, when warning systems that rely on radio or television transmission fail to alert most people. Any evacuation attempt would have exposed residents to greater hazard. As a result, they were initially advised to shelter in their homes. Eventually 21 homes were evacuated. One resident died while attempting to leave the area. Approximately one third of a nearby city was also affected, but residents were not able to evacuate. Those affected were advised to shelter in place.

There were also some delays in activating responders, who could not enter the accident vicinity without proper gear. Fire-fighting gear does not offer adequate protection. One responder was trapped after he drove into a ditch trying to leave the scene because his vehicle windshield was coated with frozen gas in the toxic cloud. The responder was rescued some time later.

Residents were told to turn off their furnaces to avoid drawing outside air into their homes. Public heath was a major concern. Approximately 400 patients were processed through hospitals.

Case Study: Hazardous Chemical Release (Continued)

Media attention was intense. Citizens needed public information on treating exposure symptoms, cleaning homes, and dealing with exposed pets and livestock. Many horses, being especially sensitive to airborne contaminants, died.

The cause for the derailment is still unknown, but was probably a faulty rail or wheel on the train. Possible sabotage has not been ruled out.



Activity: Where Do I Fit?

Many agencies are involved in such an incident. Emergency management, fire and police departments from different jurisdictions, voluntary agencies, emergency medical and health officials, and environmental agencies are among those to respond or deal with the aftermath of a hazardous materials release, such as that described in the scenario.

Think about what your department or agency would have done if the derailment and subsequent chemical release had happened in your community, and answer the questions below.

1. What role would your agency, department, or organization play during and after this incident?

2. What types of duties would you be likely to perform?

3. Name three points of contact who would be important to completing your responsibilities successfully during and after such an incident in your community.

Summary and Transition

This unit provided an overview of the course content and asked you to think about where you fit in your community's emergency management system. Unit 2 presents an overview of the integrated emergency management system.

Unit 2: Overview of the Integrated Emergency Management System

OVERVIEW OF THE INTEGRATED EMERGENCY MANAGEMENT SYSTEM

Introduction and Unit Overview

This unit will provide an overview of an integrated emergency management system, and where you fit within the system.

After completing this unit, you should be able to:

- Describe the integrated emergency management system and what the system should do.
- Define emergency management concepts and terms.
- Identify the players in the emergency management network.
- Describe the roles of the key players in the emergency management system.
- Identify the location of the emergency management function within their local government.

Why an Integrated Emergency Management System?

When an emergency or disaster occurs:

- Personnel from different agencies, jurisdictions, and governmental levels need to work together.
- Quick decisions are required.

Without planning and coordination, emergency operations can suffer from serious misdirection. To facilitate rapid, efficient emergency operations, a system is required that enables all participants in the incident to work together. An **integrated emergency management system** is a conceptual framework to increase emergency management capability by networking. That increased capability would not be readily available, especially in a disaster, without establishing prior networking, coordination, linkages, interoperability, partnerships, and creative thinking about resource shortfalls. The system should address all hazards that threaten a community, be useful in all four phases of emergency management, seek resources from any and all sources that are appropriate, and knit together all partnerships and participants for a mutual goal.

Emergency Management Concepts and Terms

Many emergency management terms are used throughout this course. To avoid confusion, this course establishes a single definition for each term. These may differ from how you use the terms in your community.

For clear reference during the course, however, please use the definitions on the pages that follow.

Disaster: A dangerous event that causes significant human and economic loss and demands a crisis response beyond the scope of local and State resources. Disasters are distinguished from emergencies by the greater level of response required.

The Stafford Act defines a major disaster that can result in Federal assistance.

Emergency Management Concepts and Terms (Continued)

> *"Major disaster' means any natural catastrophe (including any hurricane, tornado, storm, high water, winddriven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought) or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President, causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of State and local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby."*

Emergency: A *dangerous event that normally can be managed at the local level*. The Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121, et seq., as amended by the Disaster Mitigation Act of 2000, Pub L. No. 106-390, 114 Stat. 1552 (2000) (the Stafford Act) defines an emergency that can result in Federal assistance.

> *"'Emergency' means any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States."*

Note: Your State Governor can request and receive Federal assistance for some severe emergencies.

Emergency Management: Organized *analysis, planning, decision-making, and assignment of available resources* to mitigate, prepare for, respond to, and recover from the effects of all hazards.

The goals of emergency management are to:

- Save lives.
- Prevent injuries.
- Protect property and the environment.

Hazard: A *dangerous event or circumstance that has the potential to lead to an emergency or disaster*. Natural hazards are caused by natural events that pose a threat to lives, property, and other assets. Technological hazards are caused by the tools, machines, and substances we use in everyday life. Intentional hazards, such as terrorism or riots, are deliberately caused by people attacking or damaging what is valuable in a society.

Partners in the Coordination Network

Effective response to and recovery from an emergency or disaster requires the active involvement of numerous partners.

Government Partners

Each level of government participates in and contributes to emergency management.

- Local government has direct responsibility for the safety of its citizens, knowledge of the situation and accompanying resource requirements, and proximity to both event and resources. Within local government are Emergency Support Services—the departments of local government that are capable of responding to emergencies 24 hours a day. They include law enforcement, fire/rescue, and public works. They may also be referred to as emergency response personnel or first responders.

- State government has legal authorities for emergency response and recovery and serves as the point of contact between local and Federal governments.

- Federal government has legal authorities; fiscal resources; research capabilities, technical information and services; and specialized personnel to assist local and State agencies in responding to and recovering from emergencies or disasters.

Organizations at all three government levels can share their knowledge and resources with nongovernmental service providers. For example:

- At the local level, first-response agencies share information about injuries with local medical providers. Information about those who are left homeless from a disaster is shared with The American Red Cross and other community service organizations.

- At the State level, the Governor's Authorized Representative (GAR) and others share information with State agencies (e.g., Department of Agriculture) and FEMA regional representatives to bring the necessary response and recovery resources to bear on the incident.

- At the Federal level, FEMA has the capability to draw on the resources of 27 Federal Agencies (including The American Red Cross) to provide response and recovery assets and technical information to assist State and local governments.

Partners in the Coordination Network (Continued)

Private Sector Partners

Government agencies are responsible for protecting the lives and properties of their citizens and promoting their wellbeing. But the government does not—and cannot—work alone.

In all facets of emergencies and disasters, the government works with private-sector groups as partners in emergency management.

The term **private sector** includes *non-profit organizations that offer critical emergency services, such as The American Red Cross, as well as businesses that have resources to contribute*.

Together, government agencies and the private sector form a partnership. This partnership begins at the grassroots level, depending on the local and State resources that are in place, to provide the backbone for disaster management. Humanitarian and volunteer organizations also are essential to the team.

The private sector (both for-profit and non-profit entities):

- Bears the greatest casualties and costs of emergencies.
- Provides voluntary expertise and support for emergency management.

The private sector makes its concerns known to the government, and holds the government accountable for actions taken or not taken. Regardless of government accountability, communities could not respond to or recover from emergencies or disasters without the assistance of and cooperation from the private sector.

Private Citizens as Partners

Although not formally a part of emergency management, private citizens play an important role in the overall emergency management process. Private citizens can contribute by:

- Reducing hazards in and around their homes. By taking simple actions, such as raising utilities above flood levels or taking in objects that could become projectiles in a high wind, citizens can reduce the amount of damage caused by an emergency or disaster event.

Partners in the Coordination Network (Continued)

- Preparing a disaster supply kit. By assembling disaster supplies in advance of an event, citizens can take care of themselves until first-responders arrive. (See the recommended disaster supplies list in Appendix C to this course.)

- Monitoring emergency communications carefully. Throughout an emergency situation, critical information and direction will be released to the public via electronic and other media. By listening and following these directions carefully, citizens can reduce their risk of injury, keep emergency routes open to response personnel, and reduce demands on landline and cellular communication.

- Volunteering with an established organization. Organizations and agencies with a role in emergency response and recovery are always seeking hard-working, dedicated volunteers. By volunteering with an established voluntary agency, citizens can become part of the emergency management system and assure that their efforts are directed to where they are most needed.

- Taking training in emergency response. Taking training in emergency response, whether the training is basic first aid through The American Red Cross or a more complex course through a local community college, will enable citizens to take initial response actions required to take care of themselves and their families, thus freeing first-response personnel to respond to higher-priority incidents that affect the entire community.

Community Emergency Response Team (CERT) training is one way for citizens to prepare for an emergency. CERT is designed to prepare citizens to help themselves, their families, and their neighbors in the event of a catastrophic disaster. Because emergency services personnel may not be able to help everyone immediately, citizens can make a difference by using the training obtained in the CERT course to save lives and protect property.

Partners in the Coordination Network (Continued)

This training covers basic disaster survival and rescue skills that are important to have in a disaster when emergency services are not available. Some of the topics covered are:

- Disaster preparedness—anticipating the impact on an infrastructure, safety precautions during a disaster, and the role of CERTs in disaster response.
- Basic fire safety—identifying and reducing potential fire hazards, how to evaluate fires, and firefighting resources and techniques (e.g., use of portable fire extinguishers).
- Disaster medical operations—principles of triage, assessment of injuries, and treatment.
- Light search and rescue operations—priorities and resources; lifting, cribbing, and victim removal; and rescuer safety.
- Disaster psychology team organization—the psychological impact of a disaster on rescuers and victims, and how to provide psychological "first aid."

Additional courses of interest are available through FEMA's Emergency Management Institute home study program (www.fema.gov/emi). Your State may also offer training opportunities through its Emergency Management Agency.



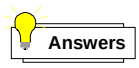
Activity: Partners in the Coordination Network

The purpose of this activity is to ensure that you understand the functions of key participants in emergency management.

For each participant in Column A, choose a description from Column B.

Matching Participant to Description

Column A	Column B
1. ____ Emergency support services	a. Acts as a liaison between local and Federal authorities
2. ____ Private sector	b. Includes law enforcement, fire/rescue, and public works
3. ____ Local government	c. May offer fiscal resources, technical assistance, and specialized personnel
4. ____ State government	d. Has proximity to the event and resources
5. ____ Federal government	e. Experiences the greatest casualties and costs of disasters



Activity: Emergency Management Participants (Continued)

1. b
2. e
3. d
4. a
5. c

Emergency Management in Local Government

Resources for an integrated emergency management system include both personnel and equipment.

Personnel resources in your area include:

- Elected and appointed officials and executives.
- Emergency program managers.
- Emergency operations staff.
- Police and fire departments.
- Other local service providers, such as the local council on aging and public works agency.
- Voluntary organizations such as The American Red Cross and The Salvation Army.

An integrated emergency management system links these personnel resources through:

- Planning.
- Direction.
- Coordination.
- Clearly defined roles and functions.

A successful emergency management program facilitates the development of a network of relationships among local officials and staff who understand their roles and are able to act when needed.

The organizational placement of emergency management affects the way that relationships are developed.

Emergency Management in Local Government (Continued)

Where is the emergency management function in your local government's organization chart? Some options include placing it within:

- A separate organization that reports directly to a governing or executive body.
- The fire/rescue department.
- Law enforcement, located in a police department or sheriff's office.

Separate Emergency Management Organization

An advantage of working within a separate organization is that the perception of bias is minimized. The emergency management function may become more visible and have increased access within local government.

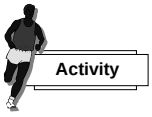
A disadvantage of working within a separate organization is that the emergency management staff must work to build rapport and avoid becoming isolated. Also, emergency management may become more directly involved in local political issues than if it were a fire or law enforcement function.

Placement Within Fire/Rescue or Law Enforcement Departments

These agencies are among the traditional first responders to emergencies and disasters, so placing the emergency manager within a first-response agency is logical.

An advantage of working within a first-response agency is that being close to the day-to-day operations of law enforcement or fire personnel builds personal relationships that pay off in coordination when developing and maintaining an emergency management program.

A disadvantage of working within a first-response agency is that association with one or another of these basic services may hamper coalition-building efforts if others perceive the emergency management staff as owing allegiance to its own service.



Activity: Where Is Emergency Management in My Community?

This activity will provide you with an opportunity to explore the emergency management functions in your community. Please take some time to research your local emergency management functions. Then, answer the questions below.

1. The local emergency management function is located (organizationally):

   ☐ As part of the fire department.
   ☐ As part of law enforcement.
   ☐ As an independent agency.

2. Who is the local emergency manager?

3. To whom does the emergency manager report?

4. What are the advantages and disadvantages of this reporting relationship? Also, think about recent emergency responses. How do you think the emergency management's organization facilitated that response?

Summary and Transition

This unit described the fundamentals of an Integrated Emergency Management System, and who is involved in making the system work. Unit 3 will explore the phases of emergency management.



For More Information

- The CERT program:

  http://training.fema.gov/EMIWeb/cert/mtris.htm

- Disaster Information for Citizens:

  www.fema.gov/pubs

- The Stafford Act:

  http://fema.gov/r-n-r/pa/papd/105.htm



Knowledge Check

Carefully read each question and all of the possible answers before selecting the most appropriate response for each test item. Circle the letter corresponding to the answer you have chosen.

1. A(n)_____is defined as a dangerous event or circumstance that has the potential to lead to an emergency or disaster:

   a. Hazard
   b. Chemical spill
   c. Emergency activation
   d. Drought
   e. Power outage

2. In emergency management, personnel are considered one type of resource.

   a. True
   b. False

3. One goal of emergency management is to:

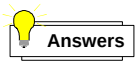
   a. Predict and minimize damage resulting from earthquakes.
   b. Conduct exercises based on simulated incidents.
   c. Supplement State and local efforts and capabilities.
   d. Identify hazards.
   e. Prevent injuries resulting from hazards.

4. A local emergency manager and staff often serve as a function of which department in the local government?

   a. Finance department
   b. Public works department
   c. Planning commission
   d. Fire/rescue service
   e. Volunteer coordination office

5. An emergency management program will work well in practice if most emphasis and attention focus upon _____.

   a. A comprehensive written plan
   b. Well-established, day-to-day relationships
   c. Reliance on State assistance
   d. Mutual aid



Knowledge Check (Continued)

1. a
2. a
3. d
4. d
5. b

Unit 3: The Emergency Management Cycle

THE EMERGENCY MANAGEMENT CYCLE

Introduction and Unit Overview

This unit examines the four phases of the emergency management cycle. After completing this unit, you should be able to:

- Describe the four phases of the emergency management cycle.
- Identify measures that the community and citizens can take in connection with each of the four phases.
- Describe the planning activities and documents that pertain at the local, State, and Federal levels.
- Identify the types of assistance that may be available from the Federal government.

Introduction to the Emergency Management Cycle

An emergency management program examines potential emergencies and disasters based on the risks posed by likely hazards; develops and implements programs aimed toward reducing the impact of these events on the community, prepares for those risks that cannot be eliminated; and prescribes the actions required to deal with the consequences of actual events and to recover from those events.

Emergency activities are divided into four phases that form a cycle. The phases of the cycle are:

- Mitigation—Taking sustained actions to reduce or eliminate long-term risk to people and property from hazards and their effects.
- Preparedness—Building the emergency management function to respond effectively to, and recover from, any hazard.
- Response—Conducting emergency operations to save lives and property by taking action to reduce the hazard to acceptable levels (or eliminate it entirely); evacuating potential victims; providing food, water, shelter, and medical care to those in need; and restoring critical public services.

Introduction to the Emergency Management Cycle (Continued)

- Recovery—Rebuilding communities so that individuals, businesses, and governments can function on their own, return to normal life, and protect against future hazards.

Following the emergency, we learn how to mitigate, prepare, and respond better. As we revise our efforts, the cycle repeats.

The illustration at the top of the next page provides a simplified picture of the emergency management cycle. Phases often overlap to fit individual situations and events.



Each of the phases will be described in more detail in the next sections.

Mitigation



As the costs of disasters continue to rise, it is necessary to take *sustained action* to reduce or eliminate the long-term risk to people and property from hazards and their effects. These sustained actions are also known as **mitigation.**

Mitigation is the initial phase of emergency management and should be considered before a disaster or emergency occurs. Mitigation, however, should also be a *continuing activity* that is integrated with each of the other phases of emergency management to employ a long-range, community-based approach to mitigation.

The goals of mitigation activities are to:

- Protect people and structures.
- Reduce the costs of response and recovery.

Mitigation is accomplished in conjunction with a **hazard analysis** (which will be covered in Unit 4). A hazard analysis helps to identify:

- What events can occur in and around the community.
- The likelihood that an event will occur.
- The consequences of the event in terms of casualties, destruction, disruption to critical services, and costs of recovery.

To be successful, mitigation measures must be developed into an overall **mitigation strategy** that considers ways to reduce hazard losses together with the overall risk from specific hazards and other community goals.

Mitigation (Continued)

Developing a Mitigation Strategy

A sound mitigation strategy is one that is based on several factors:

- Prevention measures are intended to prevent existing risks from becoming worse based on new development or other changes within the community (e.g., road construction, zoning or building code changes). Prevention measures can be very effective in areas that have not been developed or are in an early phase of development. By implementing prevention measures, such as open space preservation and storm water management, future development can be directed in such a way as to minimize the risk from known hazards while maintaining other community goals and the overall quality of life in the community.

- Property protection measures are used to modify buildings or their surroundings to reduce the risk of damage from a known hazard. Property protection measures directly protect people and property at risk and may be simple and relatively low cost (e.g., raising utilities or strapping water heaters) or they may be more elaborate and expensive (e.g., acquiring land and using that land for recreational purposes or building earthquake-resistant structures in earthquake zones).

- Natural resource protection measures are used to reduce the consequences of a known hazard and to improve the overall quality of the environment. Natural resource protection measures can range from erosion and sediment control to wetlands protection to controlling runoff from farmland sediment into downstream waterways.

- Emergency services measures protect people before and after an event occurs and may include:

  - Warning.
  - Response.
  - Protective measures for critical facilities.
  - Maintenance of health and safety.

To be effective, emergency protective measures should be built into the emergency planning process, exercised, and revised to incorporate lessons learned from both exercises and actual emergencies.

Mitigation (Continued)

- Structural projects directly protect people and property that are at risk from a known hazard. Structural projects involve the construction of man-made structures (e.g., dikes, levees, elevated roadways) to control the damage from a known hazard. These projects can be very expensive, and over the long-term, may actually disrupt the environment in such a way as to increase the overall risk from other hazards. Additionally, some structural mitigation measures may provide the public with a false sense of security, especially in the case of an extreme event, such as the Midwest floods, during which many levees were breached by the flood waters.

- Public information serves to inform and remind people about the hazards they face and measures they should take to avoid damage or injury. Public information measures may include:

  - Outreach projects.
  - Real estate disclosure requirements.
  - Technical assistance.
  - Education programs.

The mitigation strategy developed must consider the hazards faced, the potential for damage from those hazards, and the overall needs of the community. Mitigation measures must be consistent with the strategy but can be effective only if considered as part of the larger emergency management cycle.

Mitigation measures can be developed and implemented at the local or State level. Two examples of mitigation measures that have been cited for their effectiveness are included below.

Mitigation (Continued)

Hazard Minimization Program: State of Massachusetts

The Hazard Minimization Program was instituted in November 1991, as a way to reduce repetitive losses from disasters. The program funds mitigation measures, such as basement window replacement and installation of interior flood walls as a way of reducing repetitive losses from flooding. To be eligible for the minimization program, individuals or families must have suffered a loss that can be minimized through a one-time mitigation measure.

Following a major storm in December 1992, the State conducted a survey to measure the program's success. Of the 71 homeowners who responded to the survey, 49 (69 percent) indicated that they had homes exposed to floodwaters from the storm, but only 3 (less than 1 percent) were affected by the floodwaters.

Of the three homes affected by the floodwaters, only one case related to a failed minimization project. During a follow-up survey, most participants stated that they would have been affected by the storm had minimization measures not been undertaken. These survey results indicated that the program could have a major impact on reducing future storm losses, both in terms of human suffering and in taxpayer dollars saved.

Hazard Mitigation Program: Borough of Avalon, Cape May County, New Jersey

The Borough of Avalon, Cape May County, New Jersey developed a mitigation strategy designed to minimize the impact of storm damage through the implementation of structural and nonstructural mitigation projects. Projects completed under the program included:

- Developing flood-level maps and installing flood-level indicators at specific points in the borough. These maps were then mass-mailed, together with a letter of explanation, to all borough residents.
- Preparing and distributing a quarterly newsletter to inform residents of emergency management proposals, such as evacuation routes, dredging and beach-fill projects, and shelter locations.
- Preparing a hazard mitigation plan for the borough, including goals and objectives, proposed measures, programs, and actions to avoid vulnerability to hazards and overall beach protection strategies.
- Conducting educational seminars in the borough on measures, procedures, and problems related to severe weather emergencies; distributing informational material; and creating an instructional videotape.
- Adopting land use and development ordinances and funding appropriations for property development restrictions; maintaining beaches, including installing sand fencing, planting dune grass, and implementing beach renourishment projects.

Mitigation (Continued)

Hazard Mitigation Program: Borough of Avalon, Cape May County, New Jersey (Continued)

- Elevating the municipal building, police headquarters, and public works garage above the base flood elevation.
- Installing a boroughwide public address warning system that includes television access through the local cable television company.

This strategy was awarded First Place for municipalities by the 1993 National Coordinating Council on Emergency Management.

Source: *Partnerships in Preparedness: A Compendium of Exemplary Practices in Emergency Management*, Federal Emergency Management Agency, December 1995



Activity: Identifying Mitigation Measures

This activity will provide you with an opportunity to identify mitigation measures in the community or in your home that will reduce or eliminate future damage from a high-risk hazard. To complete this activity, read and answer each of the questions below.

1. What is the hazard for which your community or home is at highest risk?

2. What type(s) of damage is/are likely to occur if an event involving the selected hazard occurs?

3. What steps can be taken to reduce damage from this hazard?

4. How will you know if the mitigation efforts have been successful?

Preparedness



Because it is not possible to mitigate completely against every hazard that poses a risk, **preparedness** measures can help to reduce the impact of the remaining hazards by taking certain actions before an emergency event occurs. Preparedness includes *plans or other preparations made to save lives and facilitate response and recovery operations.*

Preparedness measures involve all of the players in the integrated emergency management system—local, State, and Federal agencies and citizens—and, at the local level, may include activities, such as:

- Developing an Emergency Operations Plan (EOP) that addresses identified hazards, risks, and response measures.
- Recruiting, assigning, and training staff who can assist in key areas of response operations.
- Identifying resources and supplies that may be required in an emergency.
- Designating facilities for emergency use.

Preparedness (Continued)

The EOP

Generally, the EOP describes how the community (or State) will do business in an emergency. The EOP:

- Assigns responsibility to organizations and individuals for carrying out specific actions that exceed the capability or responsibility of any single agency.
- Establishes lines of authority and organizational relationships, and shows how all actions will be coordinated.
- Describes how people and property will be protected in emergencies and disasters.
- Identifies personnel, equipment, facilities, supplies, and other resources that can be made available—within the jurisdiction or by agreement with other jurisdictions—for use during response and recovery operations.
- Identifies steps to address mitigation concerns during response and recovery operations.

Local government is responsible for attending to the public's emergency needs. Therefore, the local EOP focuses on measures that are essential for protecting the public, including:

- Warning and communications: How the local government will warn the public of an existing or impending emergency and communicate internally before, during, and after an event occurs.
- Emergency public information: How government will communicate with the public before, during, and after an emergency occurs. Emergency public information is especially critical in light of the recent terrorism threat. Decisions about what to tell the public and when are critical to gaining a reasoned response from the public, providing confidence that the government is doing all it can to protect the public and control the situation, and—perhaps most importantly—making the public into a response asset will be crucial.
- Mass care: Where and for how long the public's emergency needs, such as shelter and food distribution, will be accomplished. What facilities will be available, what supplies will be stocked, and how the supplies will be distributed are all covered under mass care in the EOP.

Preparedness (Continued)

- Health and medical care: How victims will be cared for, where, and by whom are addressed in the health and medical portion of the EOP. Special issues, such as decontamination, must also be addressed for hazardous materials and terrorist events.

- Evacuation: What routes will be used if evacuation becomes necessary, special transportation or routing requirements (e.g., evacuating the disabled or making evacuation routes one way to accommodate increased traffic flow), and other issues dealing with emergency egress are all part of the evacuation portion of the EOP.

States also have EOPs. State EOPs serve three main purposes:

- To facilitate a State first response to certain emergencies.

- To assist local jurisdictions during emergencies in which local response capabilities are overwhelmed.

- To serve as a liaison with the Federal government in cases where Federal assistance is necessary and authorized.

The State EOP establishes the framework within which local EOPs are created and through which the Federal government becomes involved in response and recovery operations. As such, the State government acts as the coordinating entity to ensure that all levels of government are able to respond to safeguard the well-being of its citizens.

The Federal EOP is called the **Federal Response Plan (FRP).** When activated following a Presidentially declared emergency or disaster, the FRP enables FEMA to coordinate the efforts of 27 Federal agencies (including The American Red Cross) to assist State and local response and recovery efforts. The FRP is similar to local and State EOPs in terms of its overall goals, but the Federal government also can bring highly specialized resources to bear (e.g., Nuclear Emergency Support Teams (NEST), Metropolitan Medical Response Teams, and Urban Search and Rescue Task Force) on emergencies and disasters that are outside the response capabilities of local and State governments.

More information on the EOPs as they relate to preparedness is included in Unit 5 of this course.

Preparedness (Continued)

Recruiting, Assigning, and Training Staff

During an emergency or disaster response, it may be necessary to assign personnel to jobs other than those that they normally perform. Some personnel may already be employed within the community, but others may be recruited specifically for service in emergencies. Regardless of employment status, these personnel must be recruited, assigned, and trained for their jobs *before* an emergency event occurs. Whenever possible, these persons should be included in exercises that enable them to practice the job under simulated emergency conditions so that, when an actual emergency occurs, they are ready to perform in their new capacities with little or no time lost in learning the job.

Identifying Resources and Supplies

Identifying the resources and supplies that will be available for an emergency response is a crucial part of preparedness. Virtually all jurisdictions take an inventory of their personnel and equipment resources to determine what they have and compare it with what they may need in an emergency. Those gaps between on-hand resources and probable requirements can be filled in a number of ways. Among the most common are:

- Mutual aid agreements with neighboring jurisdictions. Mutual aid agreements are formal, written agreements between jurisdictions that provide the conditions under which resource sharing can take place during an emergency. Mutual aid agreements are most common among fire departments and law enforcement agencies but may be developed to cover other resources and equipment (e.g., construction equipment) as well.

- Standby contracts with suppliers of critical equipment and supplies. Standby contracts typically are made for equipment, such as dump trucks or other construction equipment, but are also used for supplies, such as plastic sheeting. Under a typical standby contract, the supplier agrees to provide an established quantity of an item at the unit cost in effect on the day *before* the emergency occurs. Standby contracts are a good way for local governments to meet their resource supply requirements without incurring the costs of stockpiling and without paying the rapidly increasing prices that often follow an emergency.

Preparedness (Continued)

In some large emergencies, State and Federal resources may be available. For example, the National Guard may be activated following an extremely heavy snow, in the case of wildfire, or following a terrorist incident. Federal resources, including Disaster Medical Assistance Teams (DMATs) and Disaster Mortuary Teams (DMORTs) may be activated following a mass-casualty incident. All requests for State and Federal resources must be processed through the State.

Designating Facilities for Emergency Use

To ensure an effective and efficient response, certain facilities are designated as part of the emergency planning process. Typically, these facilities include:

- The Emergency Operations Center (EOC), which is the central location from which all off-scene activities are coordinated. Senior elected and appointed officials are located at the EOC, as well as personnel supporting critical functions, such as operations, planning, logistics, and finance and administration. The key function of EOC personnel is to ensure that those who are located at the scene have the resources (i.e., personnel, tools, and equipment) they need for the response. In large emergencies and disasters, the EOC also acts as a liaison between local responders and the State. (Note that States operate EOCs as well and can activate them as necessary to support local operations. State EOC personnel report to the Governor and act as a liaison between local and Federal personnel.)

- Shelters, which are used to house victims and first responders who are displaced by the event. Shelters should be designated *before* an event occurs, and the public should be aware of shelter locations and transportation routes from their neighborhoods or workplaces to the shelters. In most areas, The American Red Cross operates shelters and coordinates with the local volunteer program manager to ensure that sheltering needs are met.

- Distribution centers, from which food and emergency supplies are made available to the public. In most areas, The American Red Cross, together with other local voluntary agencies, coordinate distribution centers.

- Storage areas for specific types of equipment. Warehouses, supply yards, and other facilities that will be used as providers of the equipment necessary for a response should be designated as part of the planning process.

Preparedness (Continued)

Other facilities may also be designated in advance, based on the jurisdiction's resources and the areas of the community that are likely to be affected. On-scene facilities, such as the Incident Command Post (ICP) and staging areas, typically are *not* designated in advance because of the requirement for close proximity to the incident site.

Text Telephone (TTY) Alert: Lee County Division of Public Safety, Fort Myers, Florida

TTY Alert is an emergency warning system for deaf and hard-of-hearing residents in northwest Florida. It is the first system of its kind in the United States. When an emergency occurs, the Lee County EOP sends out an alert to the TTY machines with information about the emergency and information about what to do to every registered TTY user in the county. If necessary, the system can target a specific area. TTY Alert also allows TTY users to access the system to obtain headline news, weather bulletins, and family disaster preparedness information.

TTY Alert has been well received by the hearing-impaired community and has been recognized by the National Institute on Disabilities Rehabilitation Research.

Local Emergency Management/Industry Partnership: St. Charles Parish, Louisiana

The local emergency management/industry partnership program offers a telephone hotline system to coordinate response to disasters and emergencies. The program was established by the St. Charles Parish EOC in cooperation with 26 petrochemical companies. The system serves as a 24-hour warning system, an emergency information exchange, and a link between the companies and the parish Department of Emergency Preparedness for support during emergencies.

This system has been recognized by the Chemical Manufacturers Association as a model of government–industry cooperation.

Source: *Partnerships in Preparedness: A Compendium of Exemplary Practices in Emergency Management*, Federal Emergency Management Agency, December 1995

Preparedness covers a range of activities and can be taken at all levels of government. Some examples that have been cited as being particularly effective for citizens are shown on the next page.

Preparedness (Continued)

Citizen Preparedness

Private citizens can and should also prepare for emergencies. There are several simple steps that you, as a citizen, can take to prepare yourself for an emergency. Personal preparedness activities can not only keep you and your family safe but can help you become a response asset rather than a response burden.

- Complete your own hazard analysis. If you have lived in the community for any period of time, you are probably aware of the hazards that are high risk for your area. If you are new to the area, talk to some long-time residents to determine what events have occurred historically in your area. Don't forget the "small" emergencies, such as fire or an extended electrical outage.

- Develop your own emergency plan. Play the "what if" game with each of the hazards you selected. *What* would you do *if* _____ occurs? Then ask yourself what supplies you would need to take the action(s) you identify, and gather the supplies together.

- Practice your plan. Even simple tasks can become difficult during an emergency. Practice your plan *before* an emergency occurs until you are thoroughly familiar with the procedures you need to follow if the event occurs.

Response



Response begins when an emergency event is imminent or immediately after an event occurs. Response encompasses *all activities taken to save lives and reduce damage* from the event and includes:

- Providing emergency assistance to victims.
- Restoring critical infrastructure (e.g., utilities).
- Ensuring continuity of critical services (e.g., law enforcement, public works).

In other words, response involves putting preparedness plans into action.

One of the first response tasks is to conduct a situation assessment. Local government is responsible for emergency response and for continued assessment of its ability to protect its citizens and the property within the community. To fulfill this responsibility, responders and local government officials must conduct an immediate **rapid assessment** of the local situation.

Response (Continued)

Rapid assessment includes all immediate response activities that are directly linked to determining initial lifesaving and life-sustaining needs and to identifying imminent hazards. The ability of local governments to perform a rapid assessment within the first few hours after an event is crucial to providing an adequate response for life-threatening situations and imminent hazards. Coordinated and timely assessments enable local government to:

- Prioritize response activities.
- Allocate scarce resources.
- Request additional assistance from mutual aid partners, as well as the State, quickly and accurately.

Obtaining accurate information quickly through rapid assessment is key to initiating response activities and needs to be collected in an organized fashion. Critical information, also called **essential elements of information (EEI),** includes information about:

- Lifesaving needs, such as evacuation and search and rescue.
- The status of critical infrastructure, such as transportation, utilities, communication systems, and fuel and water supplies.
- The status of critical facilities, such as police and fire stations, medical providers, water and sewage treatment facilities, and media outlets.
- The risk of damage to the community (e.g., dams and levees, facilities producing or storing hazardous materials) from imminent hazards.
- The number of citizens who have been displaced as a result of the event and the estimated extent of damage to their dwellings.

Essential elements of information also include information about the potential for **cascading events.** Cascading events are events that occur as a direct or indirect result of an initial event. For example, if a flash flood disrupts electricity to an area and, as a result of the electrical failure, a serious traffic accident involving a hazardous materials spill occurs, the traffic accident is a cascading event. If, as a result of the hazardous materials spill, a neighborhood must be evacuated and a local stream is contaminated, these are also cascading events. Taken together, the effect of cascading events can be crippling to a community.

Response (Continued)

Good planning, training, and exercising before an event occurs can help reduce cascading events and their effects. Maintaining the discipline to follow the plan during response operations also reduces the effects of cascading events.

Citizens and Response Operations

What can private citizens do to facilitate an emergency response? Surprisingly, there is much that citizens can do, and many of the actions that will help the response most are relatively simple.

- Follow your own emergency plan. Assuming that you developed a plan and practiced what you would do during the preparedness phase, this is the time to implement it. Follow your plan unless something related to the event makes it unworkable or unsafe.

- Pay attention to *and follow* emergency directions provided by local officials. Listen to emergency broadcasts on the local media and follow the directions provided in the broadcasts. Emergency announcements are prepared by those who are most familiar with what is actually happening at the incident site and will provide you with the information you need to remain safe during the emergency.

- Don't make unnecessary phone calls, either by cellular phone or land line. Keep critical lines of communication open for emergency use.

Very importantly, if you think you want to help during an emergency, don't just show up at the scene to help. Volunteer with an established voluntary agency *now*. Volunteering before an emergency occurs will enable you to receive the training you need so that, when an emergency occurs and your services are needed, you know where you need to go and what you will do. Volunteering before an emergency also helps the agency and local authorities identify their resources and plan their needs.



Activity: Response Operations

This activity provides you with the opportunity to reflect on past response operations in your community. To complete this activity, read and respond to the questions below.

1. Think about a recent emergency event that occurred in your community. What types of damage occurred as a result of the event?

2. Were you involved in the response? If yes, what was your job?

3. What do you think worked well with the response?

4. If the situation occurred again, what would you do differently (or what would you want local officials to do differently)?

5. List ways in which you think that preparedness activities contributed to the response.

Recovery



The goal of recovery is to return the community's systems and activities to normal. Recovery begins right after the emergency. Some recovery activities may be concurrent with response efforts.

Long-term recovery includes restoring economic activity and rebuilding community facilities and housing. Long-term recovery (stabilizing all systems) can sometimes take years.

Although recovery is primarily a responsibility of local government, if the emergency or disaster received a Presidential Declaration, a number of assistance programs may be available under the Stafford Act. There are two major categories of Federal aid: Public Assistance and Individual Assistance.

Public Assistance is for repair of infrastructure, public facilities and debris removal, and may include.

- Repair or replacement of non-Federal roads, public buildings, and bridges.
- Implementation of Mitigation measures.

Individual Assistance is for damage to residences and businesses or for personal property losses, and may include:

- Grants to individuals and families for temporary housing, repairs, replacement of possessions, and medical and funeral expenses.
- The Small Business Administration (SBA) loans to individuals and businesses.
- Crisis counseling for victims and responders; legal services; and disaster unemployment benefits.

Recovery (Continued)

Recovery from disaster is unique to each community depending on the amount and kind of damage caused by the disaster and the resources that the community has ready or can get. In the short term, recovery is an extension of the response phase in which basic services and functions are restored. In the long term, recovery is a restoration of both the personal lives of individuals and the livelihood of the community.

After the short term recovery when roads have been opened, debris removed, supplies and shelters secured, communication channels, water and power, life safety and other basic services restored, the community and its leadership must rebuild.

Once the early stage of recovery has brought the community back to a safe and operational level of functioning, the long term state can build on that.

Long term recovery may take several months or even extend into years because it is a complex process of revitalizing not just homes but also businesses, public infrastructure, and the community's economy and quality of life.

There are many long term leadership and planning considerations. Applying for assistance programs available from the Federal government, as mentioned previously, is important to consider for obtaining financial and other resources in the case of a Presidential Disaster Declaration. Other considerations include:

- Keeping citizens informed and preventing unrealistic expectations.
- Mitigation measures to ensure against future disaster damage.
- Donations
- Partnerships with business and industry for resources.
- Competing interests of groups involved in the planning process.
- Environmental issues.
- Public health measures to take against the risks of diseases, contamination, and other cascading effects from a disaster.
- The unmet needs of victims.
- Rebuilding bridges, roads, public works, and other expensive parts of the infrastructure.

Summary and Transition

This unit described the four phases of emergency management. Unit 4 will describe the roles and responsibilities of key players in an integrated emergency management system.

Before proceeding to the next unit, take a few minutes to complete the Knowledge Check on the next page.



For More Information

- Mitigation Programs:

  http://www.fema.gov/mit/

- National Flood Insurance Program:

  http://www.fema.gov/nfip/

- Disaster Information for Citizens:

  http://www.fema.gov/pubs

- The Stafford Act:

  http://www.fema.gov/r-n-r/pa/papd/105.htm

- Public Assistance Program:

  http://www.fema.gov/r-n-r/pa/index.htm

- Individual Assistance Programs:

  http://www.fema.gov/r-n-r/inassist.htm



Knowledge Check

Carefully read each question and all of the possible answers before selecting the most appropriate response for each test item. Circle the letter corresponding to the answer you have chosen.

1. Each phase of the emergency management cycle ends before the next one begins.

   a. True
   b. False

2. One example of mitigation is:

   a. Preparing a home disaster kit.
   b. Ordering citizen evacuation.
   c. Learning cardiopulmonary resuscitation.
   d. Passing an ordinance controlling development in a floodplain.

3. The four phases of emergency management are useful for:

   a. Limiting activities to certain times.
   b. Keeping staff within boundaries.
   c. Prioritizing actions and resources.
   d. Providing categories to organize similar activities.

4. The Response phase imposes the greatest time pressures on emergency management.

   a. True
   b. False

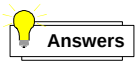
5. Federal assistance is available for which of the following purposes?

   a. Mitigation measures
   b. Medical and funeral expenses
   c. Temporary housing
   d. All of the above

Knowledge Check (Continued)

6. Match each of the following activities with the emergency management phase when the activity would occur from the phase from the activity list.

Activity	Phase
a. Conducting a training exercise	____ Mitigation
b. Floodplain mapping	____ Recovery
c. Opening shelters	____ Preparedness
d. Rebuilding roads	____ Response



Knowledge Check (Continued)

1. b
2. d
3. d
4. a
5. d
6. b, d, a, c.

Unit 4: Roles of Key Participants

ROLE OF KEY PARTICIPANTS

Introduction and Unit Overview

In the previous unit, you learned about emergency management core functions and program functions. After completing this unit you should be able to:

- Describe the role of the local Emergency Program Manager.
- Discuss the State's emergency management role.
- Describe how private sector and voluntary organizations assist emergency managers.
- Discuss the Federal role in emergencies through the Federal Response Plan (FRP).
- List the emergency management functional groups.

The Role of the Local Emergency Program Manager

The local Emergency Program Manager has the day-to-day responsibility of overseeing emergency management programs and activities. And most emergencies are handled at the local level without State or Federal assistance. This role entails coordinating all aspects of a jurisdiction's mitigation, preparedness, response, and recovery capabilities. The Emergency Program Manager:

- Coordinates resources from all sectors before, during, and after an emergency.
- Manages activities relating to mitigation, preparedness, response, and recovery.
- Ensures that all players of the process:
  - Are aware of potential threats to the community.
  - Participate in mitigation and prevention activities.
  - Plan for emergencies using an all-hazards approach.
  - Operate effectively in emergency situations.
  - Conduct effective recovery operations after a disaster.

The Role of the Local Emergency Program Manager (Continued)

The Emergency Program Manager coordinates all components of the emergency management system for the community, including:

- Fire and police services.
- Emergency medical programs.
- Public works.
- Volunteers and voluntary organizations.
- Other groups involved in emergency activities.

Other duties of the local Emergency Program Manager might include the following:

- Coordinating the planning process and working cooperatively with organizations and government agencies.
- Advising and informing the Chief Elected Official about emergency management activities.
- Identifying and analyzing the potential effects of hazards that threaten the jurisdiction.
- Taking inventory of personnel and material resources from private sector sources that would be available in an emergency.
- Identifying resource deficiencies and working with appropriate officials on measures to resolve them.
- Developing and carrying out public awareness and education programs.
- Establishing a system to alert officials and the public in an emergency.
- Establishing and maintaining networks of expert advisors and damage assessors for all hazards.
- Coordinating a review of all local emergency-related authorities and recommending amendments, when necessary.

The Role of the Local Emergency Program Manager (Continued)

Earlier in the course, you reviewed the placement of the emergency manager within local government. Based on the community's organization strategy, the Emergency Program Manager may serve as:

- Part of the fire/rescue department staff.
- Part of a law enforcement agency staff, located in a police department or sheriff's office.
- Head of a separate organization that reports directly to a governing or executive body.

Regardless of location, the person in this position obviously must devote significant time and energy coordinating with a variety of people and organizations within and outside of the community.

State Emergency Management Role

The role of State government in emergency management in many ways parallels the role of the local emergency management function.

- Legislative and executive authorities exist for State emergency programs, with a range of programs usually operating in a variety of State agencies.
- The State has a responsibility to develop and maintain a comprehensive program for mitigation, preparedness, response, and recovery activities.

The State's role is to supplement and facilitate local efforts before, during, and after emergencies. The State must be prepared to maintain or accelerate services and to provide new services to local governments when local capabilities fall short of demands.

State Emergency Management Role (Continued)

A State government is in the unique position to serve as a link between those who need assistance and those who can assist. It is able to:

- Coordinate with local governments to meet their emergency needs.
- Assess available State and Federal resources.
- Help the local government apply for, acquire, and use those resources effectively.

The State also provides direct guidance and assistance to its local jurisdictions through program development, and it channels Federal guidance and assistance to the local level. In a disaster, the State office helps coordinate and integrate resources and apply them to local needs. The State's role might best be described as "pivotal."

The Governor of a State, who is responsible for the general welfare of the citizens of that State, has certain legislated powers and resources that can be applied to all-hazards emergency management.

All State Governors have authority and responsibility for:

- Issuing State or area emergency declarations.
- Initiating State response actions (personnel, materials).
- Activating emergency contingency funds and/or reallocating regular budgets for emergency activities.
- Overseeing emergency management for all four phases.
- Applying for and monitoring Federal assistance.

State Emergency Management Role (Continued)

The State Emergency Management Agency:

- Carries out statewide emergency management activities.
- Helps coordinate emergency management activities involving more than one community.
- Assists individual communities when they need help.
- Provides financial assistance on a supplemental basis through a process of application and review.

(The Governor reviews the application, studies the damage estimates and, if appropriate, declares a state of emergency.)

If the local community's resources are not adequate, the first place to turn for additional assistance is to the county or State Emergency Management Agency.

Drawing on these resources occurs during restoration, which involves actions that repair critical infrastructure. This may include restoring utility services, conducting radiological decontamination, and removing debris.

Acting on the information provided, the county or State office will dispatch personnel to the scene to assist in the response and recovery effort. Only the Governor, however, can request the Federal aid that comes with a Presidential Declaration.

State laws require that all States have a State Emergency Management Agency and an EOP coordinated by that agency.

How the Private Sector and Voluntary Organizations Assist Emergency Managers

The private sector, including private citizens and voluntary organizations, plays a major role in assisting emergency managers before, during, and after an emergency.

- Private industry contributes by:
  - Developing and exercising emergency plans before an emergency occurs.
  - Working with emergency management personnel before an emergency occurs to ascertain what assistance may be necessary and how they can help.
  - Providing assistance (including volunteers) to support emergency management during an emergency and throughout the recovery process.

- Citizens contribute by:
  - Taking the time necessary to understand the types of emergencies that are likely to occur and preparing a personal disaster kit and emergency plans for those events.
  - Volunteering with an established organization and receiving training before an emergency occurs.
  - Taking direction and responding reasonably to alerts, warnings, and other emergency public information.

- Voluntary organizations contribute by:
  - Training and managing volunteer resources.
  - Identifying shelter locations and needed supplies.
  - Providing critical emergency services, such as the provision of cleaning supplies, clothing, food, and shelter or assisting with post-emergency cleanup, to those in need.
  - Identifying those whose needs have not been met and coordinating the provision of assistance.

Each of these players is critical to ensuring an appropriate and efficient response. However, each must become involved during the preparedness phase of the integrated emergency management system to ensure that, when an emergency occurs, all players understand their roles and are ready to contribute without delay.

Federal Emergency Management Role

The Federal government's involvement in emergency management crosses all four phases of emergency management. Assistance may take the form of fiscal support, technical assistance, or information about materials, personnel resources, and research.

The Federal government provides legislation, Executive Orders, and regulations that influence all disaster activities. It also maintains the largest pool of fiscal resources that can be applied to emergency response and recovery.

The Federal Emergency Management Agency (FEMA) takes a lead role in national preparedness for major crises. It also plays coordinating and supportive/assistance roles for integrated emergency management in partnership with State and local emergency management entities. As necessary, FEMA provides funding, technical assistance, services, supplies, equipment, and direct Federal support.

FEMA provides technical and financial assistance to State and local governments to upgrade their communications and warning systems, and it operates an emergency information and coordination center that provides a central location for the collection and management of disaster and emergency information.

FEMA provides information to the President concerning matters of national interest to help with decisions about disaster declarations. The President of the United States is responsible for:

- Protecting the public.
- Making a disaster declaration before Federal funds are released to aid disaster victims.

The Federal Response Plan

When State and local governments are overwhelmed by a catastrophic disaster, the Federal government is used as a framework to:

- Mobilize resources from any of the Federal agencies that are partners in the Federal Response Plan (FRP).

- Assist the State and local governments in carrying out certain response functions.

The concept of the FRP is simple. When implemented, the Federal government provides State and local governments with personnel, technical expertise, equipment, and other resources, and assumes an active role in coordinating the response.

Resources are grouped into 12 emergency support functions (ESFs) (see the table on pages 4.9 and 4.10). They are provided by one or more of the 27 Federal departments and agencies, including The American Red Cross.

Each ESF is headed by a primary agency. Other agencies provide support as necessary. Each agency may also respond within its own statutory authority. The following table describes the 12 ESFs and the lead agency responsible for coordination.

The Federal Response Plan (Continued)

ESF	Responsibility	Primary Agency
1. Transportation	Provide civilian and military transportation support	Department of Transportation (DOT)
2. Communications	Provide telecommunications support	National Communications System
3. Public Works & Engineering	Restore essential public services and facilities	U.S. Army Corps of Engineers, Department of Defense (DOD)
4. Fire Fighting	Detect and suppress wildland, rural, and urban fires	U.S. Forest Service, Department of Agriculture (USDA)
5. Information & Planning	Collect, analyze and disseminate critical information to facilitate the overall Federal response and recovery operations	FEMA
6. Mass Care	Manage and coordinate food, shelter, and first aid for victims; provide bulk distribution of relief supplies; operate a system for assisting family reunification	The American Red Cross
7. Resource Support	Provide equipment, materials, supplies, and personnel to Federal entities during response operations	General Services Administration
8. Health & Medical Services	Provide assistance for public health and medical care needs	U.S. Public Health Service, Department of Health and Human Services (HHS)
9. Urban Search and Rescue	Locate, extricate, and provide initial medical treatment to victims trapped in collapsed structures	FEMA
10. Hazardous Materials	Support Federal response to actual or potential releases of oil and hazardous materials	Environmental Protection Agency (EPA)

The Federal Response Plan (Continued)

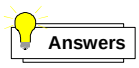
ESF	Responsibility	Primary Agency
11. Food	Identify food needs, ensure that food gets to area affected by disaster	Food & Nutrition Services, Department of Agriculture (USDA)
12. Energy	Restore power systems and fuel supplies	Department of Energy (DOE)



Activity: Emergency Management Partners

The purpose of this activity is to match the emergency management partner to a description of that partner's role in emergency management. For a role in Column A, choose a partner from Column B.

Emergency Management Partners	
1. ____ Declares a local emergency	a. Citizen
2. ____ Requests a Presidential Declaration of Disaster	b. Local government official(s)
3. ____ Activates the Federal Response Plan	c. Voluntary agency
4. ____ Responds reasonably to public information	d. Local emergency manager
5. ____ Supplements and facilitates local emergency efforts	e. State Emergency Management Agency
6. ____ Coordinates all components of the emergency management system for the community	f. State Governor
7. ____ Provides mass care	g. FEMA



Activity: Emergency Management Partners (Continued)

1. b
2. f
3. g
4. a
5. e
6. d
7. c

Emergency Management Functional Groups

An integrated approach to emergency management is based on solid general management principles and the common theme of protecting life and property. It provides direction so that participants can begin working together with all of the principals in the network.

On this team are individuals who have obvious responsibilities in emergency response, as well as others whose roles may appear to be minor but which are, in fact, very important. For example, the editor of the local newspaper and the supervisor of a local construction crew may be important members of the emergency management community.

It is helpful to imagine the working relationships of the team as divided into four broadly defined groups at each governmental level, typical of those that exist in many organizations.

- Policy Group. This is an informal and flexible grouping of senior public officials representing State, county, and municipal governments. They meet to develop emergency policies and then, as required by the disaster situation, discuss the economic, political, legal, and social implications of both the threat and the response to determine the best general approach to the situation.

  Members of a policy group can include the Governor, Adjutant General, State Director of Emergency Services, County Manager, etc. The Emergency Program Manager serves as the liaison between the policy group and the coordination group.

Emergency Management Functional Groups (Continued)

- Coordination Group. This group typically consists of the assistants, deputies, and staff of agencies and departments represented in the policy group. The coordination group performs a staff function by coordinating the types and number of personnel and material resources deployed, providing logistical support to field units, contracting for relief of forces, and carefully monitoring both the immediate emergency situation and other threats.

The Emergency Program Manager is responsible for coordinating the efforts of various agency and department personnel assigned to this group. Typically, the coordination group does not command field-level personnel.

- Operational Response Group. Persons with specific roles and responsibilities necessary for fully supporting the field response group and who are supervised by an event coordinator are included in this group. The operational response group must include individuals who are responsible for operations, logistics, planning, and finance. These functions interface directly with the ICS structure in the field response group.

- Field Response Group. This group represents fire, law enforcement, medical, military, and public works units that normally would be on the scene.



Case Study: Emergency Management Coordination

The following description of the response to a tornado illustrates the coordination among local, State, and Federal agencies and the roles of functional groups at different levels. When you have finished reading the case study, answer the questions on the following page.

Tornadoes caused massive property damage and loss of life along a path from northeast Mississippi through central Alabama into northern Georgia. Hardest hit were Jefferson and St. Clair Counties in Alabama. Casualties included 36 fatalities, 273 injuries, and property damage estimated at over $300 million.

After the tornado, the first priority was search and rescue to assist the injured and find missing people. The second priority was to care for people and identify those needing shelter and other assistance.

Local agencies responded quickly to assist the injured and find missing people, joined by county and State agencies coordinated through the Emergency Operations Center (EOC).

The agencies listed below were involved in the response:

Fire and rescue services. Three fire and rescue services from the affected areas coordinated with 26 other fire departments to assist them with search and rescue and emergency medical support.

Law enforcement. The Jefferson County Sheriff's Department and the City of Birmingham police department were the primary responding agencies, assisted by numerous other local and State agencies.

Public Works. The primary response agencies were the Jefferson County Roads and Transportation Department and the City of Birmingham Streets and Sanitation Department, along with Horticulture and Urban Forestry Department, assisted by Public Works Departments from other cities within the county.

EOC Staff. 35 or more agencies, departments, and organizations provided personnel to coordinate the response and recovery efforts.

Other local agencies. Many community groups, churches, State and Federal assistance organizations, and numerous volunteer groups provided assistance, including shelter, mass care, mental health, donated goods and services, and animal rescue and care.

State and Federal agencies. The State Emergency Management Agency coordinated State assistance that included the National Guard, public safety, the State Department of Transportation, and the State Forestry Commission. FEMA provided disaster and community relations teams, established Disaster Recovery Centers to assist victims seeking individual and housing assistance, and held applicant's briefings for jurisdictions that suffered damage to their infrastructure.



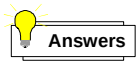
Case Study: Emergency Management Coordination (Continued)

Did Alabama receive a Presidential disaster declaration for the disaster? How can you tell?

Name two Jefferson County agencies that were involved in the response and recovery.

Name two State agencies or organizations that were involved in the response and recovery.

Name two services performed by voluntary agencies after the tornado.



Case Study: Emergency Management Coordination (Continued)

Did Alabama receive a Presidential Declaration of Disaster? How can you tell?

Yes, there was a Presidential Declaration. Disaster Recovery Centers were established, Community Relations and disaster teams were provided, and applicant's briefings for damaged infrastructure were being held.

Name two Jefferson County agencies that were involved in the response and recovery.

Any two of the following:

Sheriff's Department, Emergency Management Agency, Jefferson County Roads and Transportation Department

Name two State agencies or organizations that were involved in the response and recovery.

Any two of the following:

State Emergency Management Agency, National Guard, State Department of Transportation, State Forestry Commission

Name two services performed by voluntary agencies after the tornado.

Any two of the following

Shelter, mass care, mental health services, donated goods and services, and animal rescue and care

Summary and Transition

In this unit, you learned how the partners in an emergency management program interact at the local, State, and Federal levels. In unit 5, you will learn how to assess your community's risk from various types of hazards.



For More Information

- Federal Response Plan:

  http://www.fema.gov/fema/fed1.htm



Knowledge Check

Carefully read each question and all of the possible answers before selecting the most appropriate response for each test item. Circle the letter corresponding to the answer you have chosen.

1. The local emergency program manager coordinates:

   a. The Federal Response Plan.
   b. Urban Search and Rescue.
   c. The National Guard.
   d. The disaster declaration process.
   e. The emergency medical programs.

2. The State government is in a unique position to serve as a link between those who need assistance and those who can assist.

   a. True
   b. False

3. If the local community's resources are not adequate to deal with an emergency, it can request assistance from:

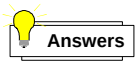
   a. Neighboring jurisdictions.
   b. Congressional representatives.
   c. The President.
   d. FEMA.

4. If a disaster response demands more resources than any local governments can supply without assistance, the next step is to request assistance from:

   a. Congressional representatives.
   b. The President.
   c. FEMA.
   d. The State Emergency Management Agency.

5. The purpose of the Federal Response Plan is to _____.

   a. Restore essential public services and facilities
   b. Provide information and planning services in catastrophic disasters
   c. Mobilize resources from Federal agencies to respond to catastrophic disasters
   d. Conduct all-hazard exercises involving local, State, and Federal participants
   e. Restore power systems and fuel supplies



Knowledge Check (Continued)

1. e
2. a
3. a
4. d
5. c

Unit 5: The Plan as Program Centerpiece

THE PLAN AS PROGRAM CENTERPIECE

Introduction and Unit Overview

This unit will describe the hazard analysis process and why conducting a thorough hazard analysis forms the basis for all emergency operations planning. After you complete this unit, you should be able to:

- Describe why an Emergency Operations Plan (EOP) must be the centerpiece of an Emergency Management program.
- Identify the high-risk hazards facing their communities.
- Describe the structure of an EOP.
- Determine the annexes and appendices that should be included in their plans.

What is an EOP and What Does It Do?

An EOP is a key component of an emergency operations program. It establishes the overall authority, roles, and functions performed during emergencies.

The emergency operations program is in continuous operation and includes non-emergency activities such as training and exercises. The EOP does not come into play for non-emergency activities.

The EOP is activated to guide emergency response and recovery, and is implemented only after being triggered by emergencies. Even during emergencies, only those parts of the EOP that are required for the response are activated.

What is an EOP and What Does It Do? (Continued)

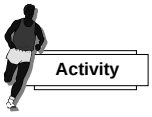
The EOP enables the community to be prepared to take immediate action when disaster threatens or strikes. An EOP describes:

- What emergency response actions will occur. . .
- Under what circumstances. . .
- By whom. . .
- By what authority. . .
- Using what resources.

An EOP describes how the government does business in an emergency.

Developing and maintaining an EOP is a crucial task of an emergency operations program. The program should bring together representatives of all involved agencies who could have a role in a response. Agency participation is necessary to ensure that all who have a role in a response are brought into the process and understand their responsibilities thoroughly.

To illustrate how an EOP organizes a response to an emergency, consider the train derailment and subsequent hazardous chemical release described earlier in the course.



Activity: Where Do I Fit Into the EOP?

This activity will provide you with an opportunity to analyze the role you (and your agency) would play in a response similar to the train derailment. To complete this activity, respond to the questions below. You may need to refer to the local EOP for this activity.

1. Would your agency or organization participate in the response described in the case study?

   ☐ Yes
   ☐ No

   If your agency would not be deployed based on the procedures in your community's EOP, do you see a role that it might have played? If yes, describe the role that your agency could perform.

2. If you answered yes to question 1, where would your agency deploy?

   ☐ To the scene
   ☐ To the EOC
   ☐ Representatives would be deployed to the scene and to the EOC

3. Describe the specific duties your agency would perform in the case study.



Case Study: An EOP in Action

The freight train derailed at approximately 3:00 AM, releasing anhydrous ammonia.

The local EOP designates the Emergency Management Agency (EMA) as the county's 24-hour crisis monitor. The EMA received first notification of the incident from a railroad official shortly after 3:00 A.M..

Because the derailment occurred outside of the city limits, the Chairman of the County Board of Supervisors had direction and control under the plan, and declared a State of Emergency in the county soon after being notified.

Each department listed in the plan was notified and alerted its employees and volunteers. The EMA activated the Emergency Operations Center (EOC). County communications staff moved operations to the EOC, and following the procedures in the Communications Annex, representatives of fire departments, law enforcement agencies, public works agencies, and the Department of Health deployed to the EOC.

The plan designated the hazardous chemical release as a level 3 emergency, which is used for all major technological disasters. The State EOC was notified, as was required for level 3 emergencies.

The designated on-scene Incident Commander was the County Fire Chief. The fire department checked the Material Safety Data Sheet (MSDS) for anhydrous ammonia and discovered that protective gear would be needed for any response personnel at the scene. No one was allowed near the toxic gas cloud until gear could be obtained.

A Hazardous Materials Appendix to the EOP listed sources for protective gear, protective actions that could be taken, and information that should be given to the public. The appendix established cleanup of the site as the responsibility of the railroad company in coordination with the county fire department, as the controlling authority for incidents involving hazardous materials.

The EMA followed the procedures included in the Warning Annex by activating warning sirens and broadcasting instructions to citizens to "shelter in place" by closing all windows and turning off furnaces to avoid bringing outside air into their homes. Public works employees set up a perimeter a safe distance from the scene that was manned by police and sheriff's officers to limit access to the release area.

After the immediate danger passed, the "shelter in place" advisory was lifted, and citizens could seek medical treatment. Hospitals activated procedures to mobilize extra staff to treat hundreds of victims suffering from exposure to the chemical.

Importance of the Hazard Analysis to the Planning Process

When completed, the community's hazard analysis should form the basis for the entire emergency planning process because it will guide response actions by highlighting:

- The hazards that pose the greatest risks to the community.
- The types and degree of damage the can be expected for each type of hazard, including the areas and populations with the highest probability for damage.
- The types of resources that will most likely be needed to respond.
- Potential resource shortfalls that need to be filled.

Refer to the hazard analysis throughout the planning process to help keep the planning team on track.

What Is In a Hazard Analysis?

As described in the previous unit, a hazard analysis involves examining the likely hazards that could affect your community and quantifying the risk posed by each hazard.

Hazards *are conditions or situations that have the potential for causing harm to people, property, or the environment.*

Hazards can be classified into three categories:

- Natural (e.g., tornadoes and earthquakes)
- Intentional (e.g., terrorism or civil disturbance)
- Technological (e.g., failure of the power grid or hazardous materials spills)

Hazard analysis itself includes three steps:

1. Identifying the types of hazards to which a community is vulnerable.
2. Developing a profile of each hazard.
3. Quantifying the risk posed by each hazard.

Job Aid 5.1 on the following page is a sample Hazard Analysis Worksheet. Developing a worksheet such as that shown in the job aid can help you determine how high a risk your community faces and what your resulting response needs may be.

Job Aid 5.1: Hazard Analysis Worksheet

Hazard: _____

Frequency of Occurrence:

- ☐ ***Highly likely*** (Near 100% probability in the next year)
- ☐ ***Likely*** (Between 10% and 100% probability in the next year, or at least one chance in the next 10 years)
- ☐ ***Possible*** (Between 1% and 10% probability in the next year, or at least one chance in the next 100 years)
- ☐ ***Unlikely*** (Less than 1% probability in the next 100 years)

Seasonal pattern?

- ☐ No
- ☐ Yes. Specify season(s) when hazard occurs: _____

Potential Impact:

- ☐ ***Catastrophic*** (Multiple deaths; shutdown of critical facilities for 1 month or more; more than 50% of property severely damaged)
- ☐ ***Critical*** (Injuries or illness resulting in permanent disability; shutdown of critical facilities for at least 2 weeks; 25% to 50% of property severely damaged)
- ☐ ***Limited*** (Temporary injuries; shutdown of critical facilities for 1-2 weeks; 10% to 25% of property severely damaged)
- ☐ ***Negligible*** (Injuries treatable with first aid; shutdown of critical facilities for 24 hours or less; less than 10% of property severely damaged)

Are any areas or facilities more likely to be affected (e.g., air, water, or land; infrastructure)? If so, which?

Job Aid 5.1: Hazard Analysis Worksheet (Continued)

Speed of Onset:

- ☐ ***Minimal or no warning***
- ☐ ***6 to 12 hours warning***
- ☐ ***12 to 24 hours warning***
- ☐ ***More than 24 hours warning***

Potential for Cascading Effects?

- ☐ No
- ☐ Yes. Specify effects:

What Is In a Hazard Analysis? (Continued)

Hazard Identification

The first step, then, is to develop a list of hazards that may occur in your community. This list is usually based on historical data about past events. Sources of information about past events may include:

- Newspaper files.
- Weather records.
- Insurance records.
- Accident reports (e.g., for hazardous materials incidents).
- EOC records.
- Fire department inspections.
- Anecdotal information from long-time residents.

Be aware that information about recent or costly events is relatively easy to locate, but information about older or less costly events may be more difficult to find. Do not ignore hazards simply because they have not occurred recently or, at last occurrence, did not cause extensive damage. A hazard that was low impact 15 years ago may have catastrophic consequences today because of the hazard itself or because of changes (e.g., new development in higher-risk areas) since the last occurrence.

Keep in mind that you may need to consider potential hazards that are located in neighboring jurisdictions if the hazards could pose a threat to your community or affect your community's response. For example, an explosion in a hazardous materials plant on the border of a neighboring State could result in toxic fumes in your community, depending on the wind direction; a dam that breaks in a city located upstream could result in a flash flood in your community.

What Is In a Hazard Analysis? (Continued)

Developing Hazard Profiles

Merely identifying the hazards that occur in your community does not tell you how to plan for those hazards. The next step is to develop a profile of each identified hazard according to the following characteristics:

- **Predictability** (i.e., frequency and/or likelihood of occurrence, seasonal pattern, etc.).
- **Magnitude** or severity of impact on the community (i.e., extent of damage expected, the types of damage that can be expected to the infrastructure, etc.).
- **Speed of onset** (e.g., hurricanes usually provide some amount of preparation time before they strike, while earthquakes or explosions could occur without warning).
- The potential for **cascading effects** (e.g., flooding following a hurricane or fires following an earthquake because of gas line ruptures).

Using a Hazard Analysis to Determine Risk

After compiling information for each hazard that your community is vulnerable to, your next step is to assess the risks associated with each hazard so that the planning team can predict and prepare for those of highest potential impact on people, services, facilities and structures.

When assessing risk, it is important to keep in mind the following hierarchy of response priorities:

1. Life safety. Conditions that could affect the health and/or safety of the population.

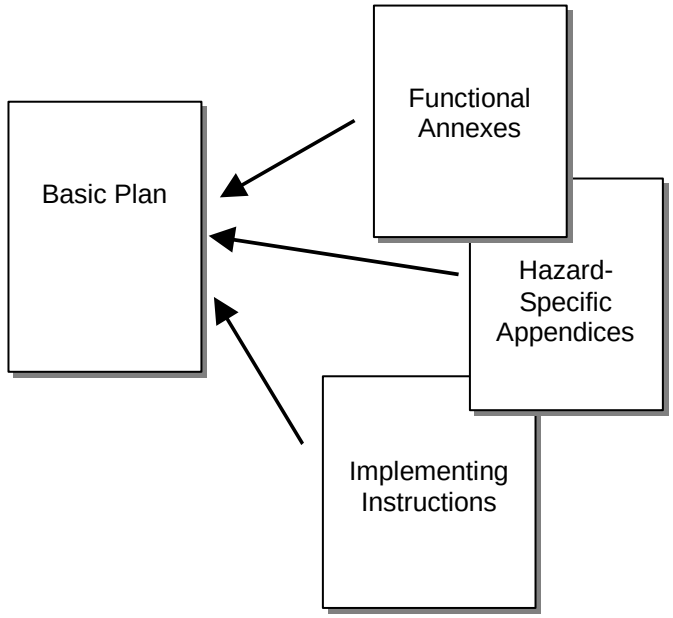
2. Essential facilities. Facilities, such as fire houses, precinct houses or waste water treatment facilities that, if affected by the hazard would seriously and adversely affect the community's ability to respond.

3. Critical infrastructure. Roadways, utilities, and other components of the infrastructure that, if damaged, would seriously and adversely affect life safety or response capability.

When surveying your community for risks to these important resources, include such elements as geographic features, infrastructure lifelines, essential facilities, special facilities, population densities and shifts (demographics), and availability of response resources.

EOP Structure and Contents

Although FEMA does not mandate a specific format, for ease of use and consistency in response, FEMA *does* recommend that EOPs be developed to follow a standard format and organization. State and Local Guide 101, *Guide for All-Hazard Emergency Operations Planning* (September 1996), recommends that the EOP be organized into the sections shown below.



This format is not required but is based on FEMA's experience in responding to disasters and with working with State and local governments as they develop their plans. Regardless of how your community's EOP is organized, the important point to note is that it must be easy to understand and easy to use *by all* who have a role in a response.

The Basic Plan

The Basic Plan provides an overview of your community's response organization and policies. It also cites the legal authority for conducting emergency operations, describes the hazards that the EOP is intended to address, explains the general concept of emergency operations, and assigns responsibility for emergency planning and operations.

EOP Structure and Contents (Continued)

The Basic Plan is typically organized into the following sections:

- Introductory Material. The introductory material provides the authority and responsibility for responding agencies to perform their tasks under the plan. It also facilitates the ease of use for the overall document. Typically, the introductory material includes:

  - A promulgation document that provides the legal authority and the responsibility to respond to emergencies.
  - A signature page that includes the signatures of the agency executives for responding agencies. The signature page indicates that the signatory agencies have worked together in the plan's development and agree to the performance commitments made in the plan.
  - A dated title page and record of changes that indicates the date of original publication and of any subsequent changes to the plan. Including a change record in the Basic Plan helps users keep the plan up to date and know that they are using the most recent version.
  - A record of distribution that indicates the individuals and agencies (or organizations) that received a copy of the plan. The record of distribution provides proof that the EOP has been distributed and that the individuals and agencies have had a chance to review the plan.
  - A Table of Contents that includes all of the section titles and subtitles for the plan to provide a topical overview of the document.

- Purpose. The Purpose statement explains why the plan has been developed and what it is meant to do. When properly developed, all other information contained in the plan flows logically from the purpose statement.

- Situation and Assumptions. The Situation and Assumptions statement provides a statement of the scope of the EOP, outlining the hazards that the plan addresses, community characteristics that may affect the response, and assumptions on which the plan is based (e.g., that, in the case of a catastrophic disaster affecting adjacent communities, mutual aid might not be available).

EOP Structure and Contents (Continued)

- Concept of Operations. The Concept of Operations provides a basic statement of *what response activities should occur*, *within what timeframe*, and *at whose direction*. A good Concept of Operations describes the community's approach to emergency response. Typically, the Concept of Operations should include such topics as:

  - Division of responsibilities between local and State responders.
  - The procedure for activating the EOP.
  - Alert levels and the tasks that should be performed at each level.
  - The general sequence of actions to be taken before, during, and after an emergency.
  - Who can request aid and under what conditions.

- Organization and Assignment of Responsibilities. The Organization and Assignment of Responsibilities describes how the community will be organized to respond to emergencies. The section includes a list, by position and organization, of the types of tasks that will be performed. At a minimum, the Organization and Assignment of Responsibilities should include a task listing for the:

  - Chief Elected Official.
  - Fire Department.
  - Police Department.
  - Health and Medical Coordinator.
  - Public Works Department.
  - Warning Coordinator.
  - EOC Manager.
  - Emergency Manager.
  - Communications Coordinator.
  - Public Information Officer (PIO).
  - Evacuation Coordinator.
  - Mass Care Coordinator.
  - Resource Manager.
  - School Superintendent.
  - Animal Care and Control Agency.

EOP Structure and Contents (Continued)

- Administration and Logistics. The Administration and Logistics section describes the support requirements and the availability of support and services for all types of emergencies. It also includes general policies for managing resources, including policies on keeping financial records, reporting, tracking resource needs, tracking the source and use of resources, procurement, and compensating owners of private property used by the community during the response. Mutual aid agreements with neighboring jurisdictions should be referenced, but not included, in this section.

- Plan Development and Maintenance. The Plan Development and Maintenance section describes the community's overall approach to planning, including the assignment of planning responsibilities.

- Authorities and References. The Authorities and References section should provide the legal basis for emergency operations. The section should include a list of laws, statutes, ordinances, Executive Orders, regulations, and formal agreements related to emergency response. This section should also provide the limits of the emergency authority of the Chief Elected Official, the circumstances under which the authorities become effective, and when they are terminated.

The Basic Plan may also include maps of the community and other documents that will assist the overall response. Despite the number of sections in the Basic Plan, it need not be long and complicated. In fact, a simple, concise Basic Plan that is easy to use is far preferable to one that includes too many details and too much verbiage.

Functional Annexes

Functional annexes include those parts of the plan that are organized around broad functions. For example, evacuation and communication are functions that are typically included in annexes. Each annex focuses on one function that the community believes will be necessary during an emergency. The number and type of functional annexes may vary, depending on the community's needs, capabilities, risks, and resources.

EOP Structure and Contents (Continued)

FEMA recommends that communities include the functions listed below as functional annexes to their Basic Plan:

- Direction and Control. This annex allows the community to analyze the emergency and decide how to respond by directing and coordinating the efforts of the jurisdiction's response forces and coordinating with the mutual aid partners to use all resources efficiently and effectively.

- Communications. This annex focuses on the systems that will be relied on for responders and other emergency personnel to communicate with each other (i.e., not with the public) during emergencies. It describes the total communications system, including backup systems, and provides procedures for its use.

- Warning. This annex describes the warning systems in place and the responsibilities and procedures for issuing warnings to the public. All components of the warning system should be described, including contingency plans, to ensure that warning information is available to the public.

- Emergency Public Information. The Emergency Public Information (EPI) Annex describes the methods that the community will use to provide information to the public before, during, and after an emergency. Historically, the EPI Annex has been developed based on the assumption that an emergency is imminent or has occurred. Recent terrorism incidents, however, demand that some degree of preparedness be incorporated into the EPI Annex so that, when a terrorist incident occurs, the public is already aware of the potential implications of the incident and understands that government authorities are doing everything possible to control the situation. This expansion of the concept behind EPI will help ensure that the public takes the appropriate action. It will also minimize a panic response among the public and will give the public confidence that the government is in control.

- Evacuation. The Evacuation Annex addresses the movement of people from an area that has been affected by an emergency to a safe area. Considerations for evacuating persons with special needs should always be included in the Evacuation Annex.

EOP Structure and Contents (Continued)

- Mass Care. This annex addresses the actions that will be taken to protect evacuees and others from the effects of the event. The Mass Care Annex describes how sheltering, food distribution, medical care, clothing, and other essential life support needs will be provided to those who have been displaced by a hazard. (Note that communities that are at risk from hurricanes should include a discussion of refuges of last resort in this annex.)

- Health and Medical. The Health and Medical annex addresses the activities associated with the provision of health and medical services in emergencies, including emergency medical, hospital, public health, environmental health, mental health, and mortuary services.

- Resource Management. Because emergencies can require more—and more specialized—resources than responding agencies have available, the Resource Management Annex facilitates the identification of existing resources, the identification of probable resource needs, and a description of how additional resources will be acquired and distributed.

Annexes should be organized in the same way as the Basic Plan (i.e., Purpose, Situation and Assumptions, etc.) but should not repeat the information that is included in the Basic Plan. Rather, annexes should include only the information that is specific to the emergency function covered by the annex.

Hazard-Specific Appendices

Appendices to plan annexes should be developed for each hazard that the plan addresses (e.g., tornado, earthquake, terrorism), and the decision of whether or not to include a specific annex should be based on the community's hazard analysis. They are developed based on special planning requirements that are not common across all hazards addressed by an annex.

By developing hazard-specific appendices, planners address the special or unique response considerations related to each hazard for which the community is at high risk, including regulatory requirements associated with specific hazard types (e.g., hazardous materials). Appendices are supplements to functional annexes.

Like annexes, appendices should be organized in the same way as the Basic Plan and should not repeat information that is included in either the Basic Plan or the annexes to which they are attached.

EOP Structure and Contents (Continued)

Implementing Instructions

Implementing instructions delineate the actual procedures that response personnel will follow in an emergency. Although many local and State response agencies refer to implementing instructions as Standard Operating Procedures (SOPs), they are actually much more than SOPs. Implementing instructions include any resource that responders may use to help them remember what to do in an emergency. In addition to SOPs, implementing instructions may include:

- Checklists.
- Worksheets.
- Instruction cards.

Implementing instructions are developed by the response agencies and are included in the EOP by reference only.

Unit Summary and Transition

Unit 5 discussed the hazard analysis process, consisting of the following steps:

- What an EOP is.
- That the hazard analysis provides an assessment of the threats faced by the community and therefore, hazards that must be addressed through planning.
- That the structure of an EOP is designed to enable communities to respond to all types of hazards.
- That when trained and exercised, the EOP becomes the foundation for all emergency response activities.

In Unit 6, you will learn how emergency managers can prepare for high-risk hazards by developing an EOP.



For More Information

- HAZUS: National Hazard Loss Estimating Methodology:

  http://www.fema.gov/hazus/fl_main.htm

- Flood Hazard Mapping Hazard Analysis Tools (list of commercially available tools):

  http://www.fema.gov/mit/tsd/en_coast.htm

- Hazardous Materials Risk Analysis (G-305.3), Emergency Management Institute.

  http://www.fema.gov/emi



Knowledge Check

Carefully read each question and all of the possible answers before selecting the most appropriate response for each test item. Circle the letter corresponding to the answer you have chosen.

1. A hazard analysis is the first step in the emergency planning process.

   a. True
   b. False

2. The first step in a hazard analysis is _____.

   a. Identifying sources of additional resources needed to respond to each hazard.
   b. Determining the risk that each hazard poses to your community.
   c. Prioritizing the risk of each hazard to your community.
   d. Identifying all hazards that pose a risk to your community.

3. A hazard that causes a second emergency event to occur is called a:

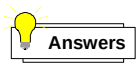
   a. Double event.
   b. Cascading event.
   c. Major disaster.
   d. Complex response.

4. When assessing risk, the top response priority is:

   a. Essential facilities.
   b. Critical Infrastructure.
   c. Life safety.

5. The Organization and Assignment of Responsibilities describes how the community will be organized to respond to emergencies.

   a. True
   b. False



Knowledge Check (Continued)

1. a
2. d
3. b
4. c
5. a

Unit 6: Planning and Coordination

PLANNING AND COORDINATION

Introduction and Unit Overview

An integrated emergency management system depends on an EOP to organize response and other emergency activities. Most communities also have other plans, such as a comprehensive plan, that should be integrated with emergency management. In this unit, you will learn about:

- Identifying resources that your organizations can offer during an emergency.
- Describing the benefits of using the Incident Command System for emergency response.
- Describing the interrelationships between ICS and the Emergency Operations Center.
- Listing four ways to augment local resources, and give an example of when each is appropriate.

Linking Hazard Analysis to Capability Assessment

Each responding agency or organization in the community should have personnel rosters, training records, equipment inventories, and other information needed to develop a complete picture of the resources that are available in an emergency. During the planning process, this information should be compared with anticipated resource needs for emergencies of varying types and scales. Only by completing such a comparison can resource shortfalls be anticipated.

It would be useful to maintain a list of resources needed to respond to all or most of your community's identified hazards. The list should include:

- The resource type and number available.
- The number of each item that is available.
- A point of contact and 24-hour contact phone numbers for activation of the resource.
- The cost or fee for use of the resource.
- The date that resource availability was last verified.
- Procedures for inspection, pick-up, and return of the resource.

After identifying potential resource shortfalls, the planning team must determine how to obtain the additional resources necessary. Some options for obtaining needed resources include:

- Mutual Aid Agreements with neighboring jurisdictions. Mutual aid agreements are usually voluntary agreements to pool resources when any participating community experiences a shortfall. The most common mutual aid agreements are for fire, police, and Emergency Medical Services (EMS) services, but mutual aid agreements can be developed for any type of resource.

  Note: Do not assume that, because your community has mutual aid agreements in place, its resource needs will be met. Emergencies that affect multiple communities may make resource sharing impossible. Contingency plans should be developed to deal with situations in which mutual aid is not available.

- Standby contracts are contracts for critical equipment and supplies that become effective only if necessary following an emergency event. Typically, standby contracts establish prices as those in effect on the day *before* the event occurred. The use of standby contracts can help ensure that emergency supplies are available in the quantities needed and at a reasonable price.

Linking Hazard Analysis to Capability Assessment (Continued)

- Private-sector organizations that have specialized expertise and equipment. Often, industrial facilities have their own response personnel and equipment that can be called upon in a general emergency.

- Local military installations have a sense of ownership in the community. They also have personnel with specialized training and equipment that can be used in a general emergency. Local governments can develop agreements, similar to mutual aid agreements, with commanders of local military installations to augment local response capabilities.

- State governments have additional technical and response capabilities that can be requested when local resources are over stretched. Additionally, most State governments have Emergency Mutual Aid Compacts (EMACs), which are similar to the local mutual aid agreements, with neighboring States to supplement their resources.

- The Federal government can provide technical and other emergency assistance when requested by the Governor of the affected State *if* the President declares the area a major emergency or disaster. When an emergency or disaster declaration occurs, FEMA can draw upon the assets and capabilities of 27 Federal agencies and The American Red Cross to assist in response and recovery operations.

There may be other ways to obtain the resources necessary for a given response need. Think expansively as you consider resource management so that no potential resource is missed.



Activity: What Can Your Organization Offer?

This activity is designed to make you think about the types of resources (i.e., personnel, tools, and equipment) that your organization or agency could provide in the event of an emergency. Consider your agency's role in an emergency response. Then, list the resources that the agency could provide to fulfill its response requirements.

Agency: _____

Primary Response Role: _____

Personnel	Tools	Equipment

The EOP and the Incident Command System

An EOP calls for a coordinated response to various events from a number of different governmental, private sector, and volunteer organizations.

ICS is an emergency management model for command, control, and coordination of a response operation. It is based on core principles that have been proven successful in managing a wide range of emergencies, from wildfires to terrorism.

ICS is an "all-risk" system that has been endorsed or adopted by many emergency response organizations including:

- The National Fire Academy (NFA).
- International Association of Chiefs of Police (IACP).
- National Fire Protection Association (NFPA).

In an emergency, responders may be not be working for their day-to-day supervisors, or may be working in different locations. They need to function as part of a larger system. ICS provides a standardized structure that can pull the many parts of the on-scene response together.

An ICS can be made up of many different players, such as fire, police, medical, community and State officials, and The American Red Cross.

Federal law requires that ICS be used to manage some specific types of incidents, such as hazardous materials incidents. Most EOPs specify that ICS will be used in emergency operations. The Direction and Control Annex of most EOPs describes the interface between ICS and the EOP.

ICS is not set in stone, but can be molded to fit different situations. The point of the ICS is not to give one player complete control, but to provide one system in which all of the players work together in making decisions.

The EOP and the Incident Command System (Continued)

There are eight major principles of ICS. These are:

1. Common terminology: ICS uses a common terminology as its base. This allows anyone from any part of the country to communicate effectively within an ICS system. Common terms for common functions, actions, and personnel prevent confusion.

2. Modular organization: The ICS organizational structure can contract or expand depending on the magnitude of the incident or the operational necessity. The structure includes five functional areas:

   - Command
   - Operations
   - Planning
   - Logistics
   - Finance

3. Integrated communication: All responding agencies use standard operating procedures, common radio networks, etc., so that all response personnel can communicate easily throughout the response.

4. Unified command structure: In a unified command structure, all agencies contribute to the command process by:

   - Jointly determining overall goals and objectives.
   - Jointly planning tactical activities.
   - Conducting integrated tactical operations.
   - Maximizing the use of all assigned resources.

   A unified command structure means that, to maximize all resources such as staff and equipment, agencies might reassign staff to do additional or different work than they normally do.

5. Consolidated action plans: An action plan is required for all responders to operate effectively. In small incidents, this may be a mental or verbal plan. In large-scale events, a written plan may be required for each operational phase of the event.

The EOP and the Incident Command System (Continued)

6. Manageable span of control: Manageable span of control is defined as the number of subordinates one supervisor can effectively manage. Typically, a manageable span of control is between three and seven persons.

7. Designated incident facilities: All incidents should have one command post from which direction, control, coordination, and resource management are conducted.

8. Comprehensive resource management: All resources should be tracked by a central, status-keeping function to:

   - Maximize resource use.
   - Consolidate control.
   - Reduce the communications load.
   - Provide accountability.
   - Reduce self-assignment.

   Again, the goal is to use resources, including both personnel and equipment, most effectively.

The EOP and the EOC

An EOC is a central location where agency representatives can coordinate and make decisions when managing an emergency response. The EOP designates the facility that will serve as the EOC during emergencies. Specifying an EOC allows decisionmakers to operate in one place to coordinate and communicate with support staff.

The EOP and the EOC (Continued)

The advantages of a single EOC location include:

- Centralized direction and control.
- Simplified long-term operation.
- Increased continuity.
- Better access to all available information.
- Easier verification of information.
- Easier identification and deployment of available resources.

The EOC should be located away from vulnerable, high-risk areas but accessible to the local officials who will use it. A convenient, secure location will:

- Provide a single, recognizable focal point for emergency or disaster management.
- Allow emergency organizations to respond as a team.
- Permit a faster response and recovery than a fragmented approach would provide.

Also, a single facility can function more efficiently because calls for assistance can be made to a single location where key officials can:

- Meet.
- Make decisions.
- Coordinate activities.

The EOP and the EOC (Continued)

The EOC does not provide on-scene management but manages the overall event through five key functions:

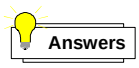
1. Direction and control (broad guidance, not tactical).
2. Situation assessment.
3. Coordination.
4. Priority setting.
5. Resource management.



Activity: The EOP, ICS, and EOC

The purpose of this activity is to match each feature to the EOP, ICS, or EOC. For every feature in Column A, choose the appropriate category for that feature from Column B.

The EOP, ICS, and EOC	
1. ____ Modular organization	a. EOP
2. ____ Single location	b. ICS
3. ____ Responsibilities for core emergency management functions	c. EOC
4. ____ Comprehensive resource management	
5. ____ Roles of participating agencies	
6. ____ Method of working together	
7. ____ Unified command structure	



Activity: The EOP, ICS, and the EOC (Continued)

1. b
2. c
3. a
4. b
5. a
6. b
7. b



Case Study: Multiple-Agency Coordination

The following description of the response to an elevator grain explosion illustrates the complex coordination among the EOP, ICS, EOC, and individual agencies. When you have finished reading the case study, complete the questions on the following page.

A grain elevator exploded in DeBruce, Kansas, a largely rural area, in 1998. There were 7 fatalities, 10 people injured, and 30 who had to be evacuated from the scene.

Sedgwick County and the Kansas State Governor declared a State of Emergency, and the disaster received a Presidential Declaration of Emergency. An Urban Search and Rescue Task Force was dispatched to the site.

The following local, State, and Federal personnel were involved in the response:

- 4 appointed officials
- 22 communications personnel
- 10 elected officials
- 73 emergency management personnel
- 250 fire/rescue personnel
- 12 health and medical specialists
- 9 human services personnel
- 62 law enforcement officers
- 28 military personnel
- 4 public relations officers
- 33 public works personnel
- 10 utility personnel
- 20 volunteers

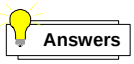
The scene remained open for response operations over a period of 1 month and 2 days.

Case Study: Multiple-Agency Coordination (Continued)

How did all of these responders know who was in charge at any given time?

What source did communications personnel consult for correct technical protocols and procedures?

Where did elected officials and agency heads meet to make policy decisions?



Case Study: Multiple-Agency Coordination (Continued)

Answers to Case Study

How did all of these responders know who was in charge at any given time?

The ICS provides for unity of command. The Direction and Control Annex of the EOP specifies how the ICS is implemented.

What source did communications personnel consult for correct technical protocols and procedures?

Their agencies' SOPs.

Where did elected officials and agency heads meet to make policy decisions?

In the EOC.

Augmenting Local Resources

As mentioned earlier, resources for an integrated emergency management system include both personnel and equipment.

Response to an incident, such as the grain elevator explosion, called for far more personnel and equipment than local agencies could provide. Most ongoing emergency management programs anticipate possible resource shortages, and seek ways in which to augment them.

Some strategies for obtaining additional resources include:

- Pre-emergency purchase and storage of items that are known to be needed during an emergency, but are not currently in inventory (e.g., chain saws and other tools, plywood, plastic sheeting, drinking water).

- Stand-by contracts, which allow the community to purchase or lease needed items (ranging from plastic sheeting to heavy equipment) at a price equal to the price in effect on the day before the emergency.

- Mutual aid agreements with other neighboring communities, local, and State governments, in which resources from those groups are transported to the community experiencing the emergency, then returned when they are no longer needed.

- Solicited donations.

The Resource Management annex to the EOP directs how resource needs will be met during response to an emergency.

Augmenting Local Resources (Continued)

As resource shortages occur, the resource management staff at the EOC receives reports of any needs that cannot be met with an agency's resources. The Resource Management staff gathers essential information before trying to fulfill the needs. This information includes:

- What is needed.
- How it will be used. (Information should be as specific as possible because a different item might work as well or better and be readily available).
- How much is needed.
- Who needs it.
- Where it is needed.
- When it is needed.

It is important for EOC staff to set priorities when meeting needs. After a resource need is identified, it should be logged, passed on to those responsible for obtaining and committing resources, and then tracked.

Pre-Emergency Purchase

Some communities make the decision to purchase and store items that are known to be needed in an emergency. The main advantage of purchasing items in advance of an emergency is that, when an emergency occurs, the items may not be available or may be available at a much higher price.

There are two key disadvantages to pre-emergency purchase, however:

- Purchase ties up funds for items that may not be used within a known timeframe. Emergency Managers and community leaders will have to determine whether the benefit of pre-emergency purchase outweighs the cost—especially for items that require controlled storage or that deteriorate over time.
- Purchase is not the only cost involved with the resources. The resources must be inventoried, stored, and maintained, adding an additional cost burden to the community.

After considering the costs versus the benefits of pre-emergency purchase, many communities opt for standby contracts as a more cost-effective alternative.

Augmenting Local Resources (Continued)

Standby Contracts

Standby contracts allow communities to purchase or lease items needed for an emergency response at the price in effect on the day before the emergency occurred. These contracts offer several advantages over pre-emergency purchase:

- They ensure that the resources required will be available within a specified timeframe and at an established price.
- They eliminate the need for inventory, storage, and maintenance that accompanies pre-emergency purchase.

A potential disadvantage exists with standby contracts if, in the aftermath of an emergency, the local infrastructure is so disrupted that accessing and distributing the contracted materials becomes a logistical nightmare. Additionally, in a widespread emergency, suppliers may be overextended and unable to deliver the supplies as agreed to in the contract.

Mutual Aid Agreements

Most emergencies and disasters do not receive Federal disaster declarations. Developing mutual aid agreements with adjacent communities can be important to ensuring that adequate resources are available to address an emergency situation.

In any emergency or disaster, mutual aid partners may be able to provide:

- Emergency personnel.
- Equipment, such as bulldozers or dump trucks.
- Communications capability.
- Overall management strategy and program management.
- Sandbags.
- Facilities, such as warehouses or temporary shelters.

Augmenting Local Resources (Continued)

Mutual aid agreements usually are documented in the Resource Management Annex to the EOP. Although mutual aid agreements are designed for emergency situations, emergency management partnerships should operate outside of a disaster setting as well. Training, preparedness, and mitigation efforts also can be shared and enhanced through partnerships

Solicited Donations

During some types of emergency situations, it may be possible to solicit donations of needed supplies from suppliers or directly from the public. Typically, solicited donations involve items such as four-wheel drive transportation following a blizzard or boats following a flood. Soliciting other types of donations, such as emergency supplies, can cause major problems, however.

After-action reports are full of issues relating to unsolicited donations that arrive at a disaster site in trailers that are filled with unsorted, unneeded goods. Even in communities that have an established mechanism for dealing with donated goods, unsolicited donations create huge logistical problems. Most communities, therefore, prefer to request cash instead of goods.

Maintaining an Effective EOP

Regardless of how good an EOP is, it will not work if it is not communicated. At a minimum, the plan must be communicated to:

- Local, State, and Federal officials who need to coordinate the plan with their EOPs.
- Response personnel both inside and outside of the community who share responsibility for implementing the plan, reducing damage, and saving lives.
- The local community**,** which has expectations concerning the government's role in an emergency and, collectively, is critical to the plan's success.

Maintaining an Effective EOP (Continued)

The best way to communicate the plan to response agencies that are responsible for implementing it is through training and exercising.

Training is critical to response personnel so that they know:

- What they are supposed to do.
- When they are to do it.
- How they are to do it, including:
  - Procedures for accomplishing their task or mission.
  - Coordinating their efforts with personnel within and outside of the agency.
  - Communicating their needs and status.

Training can include a wide range of activities from classroom training; to on-the-job training; to the use of checklists, worksheets, and instruction cards. The type and duration of the training selected depends on the:

- Frequency with which the task is performed. (Tasks that responders perform often will require less training than tasks that they perform only during an emergency situation.)
- The complexity of the task.

Exercises are critical to a plan's success and a successful response because they:

- Test and evaluate plans, policies, and procedures.
- Identify planning weaknesses.
- Identify resource gaps.
- Improve interagency coordination and communication.

Maintaining an Effective EOP (Continued)

Exercises will show whether what appears to work on paper actually *does* work in practice. Exercising will help to:

- Clarify the roles and responsibilities of all who play any part in the response.
- Improve individual performance by providing an opportunity for responders and others to practice their assigned duties.
- Gain public recognition that the local government has taken steps to protect their safety—and gain the support of public officials who will support the response effort during an emergency.

There are several types of exercises graduating in realism, complexity, and stress levels.

Interfacing with Other Plans

Many cities and counties employ professional planners to develop and maintain comprehensive plans for their areas. A comprehensive plan includes a study of the traffic and transportation characteristics, population, economy and sociology, and the physical features of the community.

Emergency plans and comprehensive plans have obvious overlaps. While there is a mitigation component in local emergency management programs, comprehensive plans also address mitigation. For example, the land use element of the comprehensive plan may call for acquisition of park land where property is vulnerable to residential development within a floodplain. The community's land use plans may specify the location of future growth and development, as well as the stated goals and policies of the community. Regulations serve as tools for implementing plans and managing development.

Land use planning considers the impact of changes in land use and development that also change the hazard profile of the community. Potable water, sewer service, roads, stormwater runoff patterns, and water quality all may be affected by development. Storms and erosion also alter a community's hazard areas.

Interfacing with Other Plans (Continued)

Communities can incorporate emergency management policies and goals into the local planning process through enactment of regulations and policies that support structural and non-structural mitigation measures. A close working relationship between the emergency planning and comprehensive planning functions strengthens both programs.

One critical area of interface between the EOP and other plans is in the hazardous materials arena.

- Hazardous materials are accompanied by their own planning requirements, as established by the Department of Transportation (DOT) in 49 Code of Federal Regulations (CFR), and the Occupational Safety and Health Administration (OSHA) in 29 CFR.

- The Environmental Protection Agency (EPA) places additional requirements for hazardous waste under 40 CFR.

These regulations cover a range of requirements, including:

- Transport and storage of hazardous materials, including placarding requirements (49 CFR).

- Hazard communication under SARA Title III (29 CFR).

- Clean up and disposal of hazardous materials (49 CFR) and hazardous waste (40 CFR).

Additionally, these regulations require that all incidents involving hazardous materials or hazardous waste be managed using ICS.

If you are unfamiliar with planning requirements related to hazardous materials or hazardous waste, consult with your HazMat officers, Local Emergency Planning Committee (LEPC), or State emergency management agency to ensure that your local EOP also meets the requirements for hazardous materials and hazardous waste response.

Summary and Transition

In this unit, you reviewed the role of the EOP in an emergency management program. You also learned about augmenting local resources, maintaining an EOP, and interfacing with other plans. In Unit 7, you will study the core functions of an emergency management program.

Before you proceed to the next unit, take a few minutes to complete the Knowledge Check on the next page.



For More Information

- Comprehensive guide for developing and maintaining EOPs: State and Local Guide 101, *Guide for All-Hazard Emergency Operations Planning*:

  http://www.fema.gov/library/allhzpln.htm

- Incident Command Systems Independent Study Course:

  http://training.fema.gov/emiweb/IS195.htm



Knowledge Check

Carefully read each question and all of the possible answers before selecting the most appropriate response for each test item. Circle the letter corresponding to the answer you have chosen.

1. Standby contracts establish the price as that which is/was in effect:

    a. On the day before the emergency event.
    b. On the day of the emergency event.
    c. On the day after an emergency event.

2. The Incident Command System provides a model for command, control, and coordination of a response operation.

    a. True
    b. False

3. The EOP provides _____during emergencies.

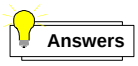
    a. A method of working together
    b. Centralized direction and control
    c. A source of overall authority, roles, and functions
    d. Communications capabilities
    e. Recommended mitigation measures

4. Which of the following is <u>not</u> a feature of the Incident Command System?

    a. Central location
    b. Consolidated action plans
    c. Manageable span of control
    d. Common terminology
    e. Modular organization

5. Mutual aid agreements may provide _____ when invoked.

    a. Unity of command
    b. Emergency public information
    c. Policy decisions
    d. Training
    e. Equipment such as bulldozers or dump trucks



Knowledge Check (Continued)

1. a
2. a
3. c
4. a
5. e

Unit 7: Functions of an Emergency Management Program

FUNCTIONS OF AN EMERGENCY MANAGEMENT PROGRAM

Introduction and Unit Overview

This unit examines the functions of an emergency management program. After completing this unit, you should be able to:

- Describe the emergency management core functions that are performed during emergencies.
- Describe the emergency management program functions that continue on a day-to-day basis.
- Distinguish between core functions and program functions.
- Discuss the role of local laws in establishing emergency management authorities and responsibilities.

Introduction to Emergency Management Functions

Emergency management is most visible during emergencies, but successful response operations require continual operations between incidents.

There are two ways to categorize emergency management activities:

1. Emergency management core functions that are performed during emergencies.
2. Emergency management program functions that continue on a day-to-day basis.

In this unit you will learn about the emergency core functions and the essential functions of an ongoing emergency management program.

Basis in Local Law

Specific areas of authority and responsibilities for emergency management should be clearly stated in local ordinances. Local ordinances should spell out who has responsibility for:

- Emergency management operations in normal, day-to-day activities.
- Policy decisions affecting long-term emergency management.
- Final authority in actual disaster situations.

These ordinances should also stipulate when emergency authorities begin during an emergency and end following the response.

Local laws:

- Provide for a specific line of succession for elected officials and require that departments of government establish lines of succession. This ensures continuity of government and leadership in an emergency.
- Define and delineate responsibilities, scopes of authority, and standards for the position of emergency program manager for an all-hazards integrated local emergency plan, and for mutual support.

Emergency Management Core Functions

State and Local Guide 101, *Guide for All-Hazard Emergency Operations Planning,* suggests dividing emergency management into eight core functions. Your community's EOP includes these functions as annexes.

The eight core functions are:

1. Direction and Control.
2. Communications.
3. Warning.
4. Emergency Public Information.
5. Evacuation.
6. Mass Care.

Emergency Management Core Functions (Continued)

7. Health and Medical.

8. Resource Management.

Assigning work based on these core functions helps to ensure that continuity with the EOP is maintained during a response.

Note that some State and local EOPs use different terms for the eight core functions. If that is the case in your State, review the functions in your EOP to see where each of the core functions from SLG-101 are covered.

Emergency Management Program Functions

Most emergency management reports and surveys are organized according to a standard set of emergency management functions. The functions serve as a means to divide day-to-day program activities into categories. The Emergency Manager uses these functions to organize and direct the emergency management program.

The standard emergency management program functions used by most local governments are shown in the following table. These functions reflect categories in Capability Assessment for Readiness (CAR) surveys.

Emergency Management Program Functions (Continued)

Emergency Management Program Functions	
Function	**Description**
1. Laws and Authorities	A legal basis for the establishment of the emergency management organization, the implementation of an emergency management program, and continuity of government exists in local law/ordinance and is consistent with State statutes concerning emergency management.
2. Hazard Identification and Risk Assessment	The jurisdiction has a method for identifying and evaluating natural and technological hazards within its jurisdiction.
3. Hazard Mitigation	The jurisdiction has established a pre-disaster hazard mitigation program.
4. Resource Management	The local emergency management organization has the human resources required to carry out assigned day-to-day responsibilities.
5. Planning	The jurisdiction has developed a comprehensive mitigation plan and an EOP.
6. Direction and Control	EOC operating procedures are developed and tested annually.
7. Communication and Warning	Communications system capabilities are established.
8. Operations and Procedures	The jurisdiction has developed procedures for conducting needs and damage assessments, requesting disaster assistance, and conducting a range of response functions.
9. Logistics and Facilities	The primary and alternate EOCs have the capabilities to sustain emergency operations for the duration of the emergency and have developed logistics management and operations plans.
10. Training	The jurisdiction conducts an annual training needs assessment, incorporates courses from various sources, and provides/offers training to all personnel with assigned emergency management responsibilities.
11. Exercises, Evaluations, and Corrective Actions	The jurisdiction has established an emergency management exercises program, exercises the EOP on an annual basis, and incorporates an evaluation component and corrective action program.

Emergency Management Program Functions (Continued)

Emergency Management Program Functions	
Function	**Description**
12. Public Education and Information	An emergency preparedness public education program is established, procedures are established for disseminating and managing emergency public information in a disaster, and procedures are developed for establishing and operating a Joint Information Center (JIC).
13. Finance and Administration	The jurisdiction has established an administrative system for day-to-day operations.



Case Study: Train Derailment Review

The train derailment and anhydrous ammonia release incident that was described earlier in this course is recapped below. You will use the facts to identify how each of the emergency management program functions could be applied to this event.

The freight train derailed at approximately 3:00 AM, releasing anhydrous ammonia, a toxic gas.

The Chairman of the County Board of Supervisors declared a State of Emergency, activating the local EOP. The local EOP includes the county and all incorporated towns and cities within the county. There are mutual aid agreements with surrounding counties.

The EOC opened, and policymakers gathered to direct the response. Because warning systems that rely on radio or television transmission would fail to alert most people, warning sirens were used.

Any evacuation attempt would have exposed residents directly to the hazard, so they were initially advised to shelter in their homes. Eventually 21 homes were evacuated. One resident perished while attempting to leave the area.

Approximately one third of a nearby city was also affected, but residents were not able to evacuate. All those affected were advised to shelter in place.

There were some delays activating responders, who could not enter the accident vicinity without proper gear.

One responder was trapped after he drove into a ditch trying to leave the scene because his vehicle windshield was coated with frozen gas from the toxic cloud. The responder was rescued some time later.

Hazardous Materials appendices in the EOP listed sources for protective gear, procedures for working with hazardous materials, protective actions that could be taken, and information that should be given to the public. The Emergency Management Agency had provided training on hazardous materials to local responders, and a disaster simulation involving a hazardous chemical release is scheduled.

The Emergency Management Agency followed appendix procedures by activating warning sirens and broadcasting instructions to citizens to “shelter in place” by closing all windows and turning off furnaces to avoid bringing outside air into their homes.

Media attention was intense. Citizens needed public information on treating exposure symptoms, cleaning homes, and dealing with exposed pets and livestock. Many horses, being especially sensitive to airborne contaminants, died.

Case Study: Train Derailment Review (Continued)

Transportation of hazardous materials is Federally regulated and imposes requirements on carriers. The railroad contracted with a HazMat team to clean up the site.

The railroad also contacted those with hospital bills and assumed responsibility for payment. The railroad had victims sign releases of liability for additional damages. The State eventually forced the railroad to cease requiring releases.

The State Health Department has been monitoring air and water quality in the area. Some contaminated dirt has been removed.



Activity: Emergency Management Functions in Action

Jot down one way that each emergency management function actually applied or could apply to the train derailment and hazardous materials release described earlier. For example, the Laws and Authorities function established the legal basis for the emergency response by the involved jurisdictions.

Emergency Management Function	Application to the Derailment/Anhydrous Ammonia Release
1. Laws and Authorities	
2. Hazard Identification and Risk Assessment	
3. Hazard Mitigation	
4. Resource Management	
5. Planning	
6. Direction and Control	
7. Communication and Warning	
8. Operations and Procedures	
9. Logistics and Facilities	
10. Training	
11. Exercises, Evaluations, and Corrective Actions	
12. Public Education and Information	
13. Finance and Administration	

Answers

Activity: Emergency Management Functions in Action (Continued)

Here are some sample answers. There are many possible applications for each of the functions.

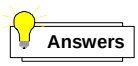
Emergency Management Function	Application to the Derailment/Anhydrous Ammonia Release
1. Laws and Authorities	The transportation of hazardous materials is Federally regulated, so Federal regulations affect the local response.
2. Hazard Identification and Risk Assessment	Transportation of hazardous materials close to population centers causes risk of releases. The EOP should have an appendix dealing with hazardous materials that address this risk.
3. Hazard Mitigation	Zoning changes and better management by the railroad are possible measures.
4. Resource Management	There were delays in getting protective gear for responders.
5. Planning	A single plan that tied together county and city responders avoided conflicts due to competing emergency plans.
6. Direction and Control	Policymakers gathered in the EOC to establish the overall direction of the response.
7. Communication and Warning	Warning sirens were used.
8. Operations and Procedures	Each department listed in the plan was notified, and alerted its employees and volunteers.
9. Logistics and Facilities	The EOC was activated.
10. Training	Local responders had received training in dealing with hazardous materials releases.
11. Exercises, Evaluations, and Corrective Actions	A simulation that includes a hazardous materials release is scheduled.
12. Public Education and Information	Residents were advised to shelter in place, and also received information on treating exposure symptoms, cleaning homes, and dealing with exposed pets and livestock
13. Finance and Administration	The Emergency Management Agency maintained records of expenses for possible compensation by the railroad.



Activity: Comparing Functions

Check one or both columns to show which functions are part of the eight core functions of emergency management, and which are functions of an emergency management program.

Function	Core Function	Program Function
Operations and Procedures		
Logistics and Facilities		
Mass Care		
Direction and Control		
Training		
Communications		
Exercises, Evaluations, and Corrective Actions		
Public Education and Information		
Evacuation or Sheltering In-Place		
Health and Medical		
Finance and Administration		
Warning		
Laws and Authorities		
Hazard Identification and Risk Assessment		
Hazard Mitigation		
Emergency Public Information		
Resource Management		
Planning		
Communication and Warning		



Activity: Comparing Functions (Continued)

Function	Core Function	Program Function
Operations and Procedures		4
Logistics and Facilities		4
Mass Care	4	
Direction and Control	4	4
Training		4
Communications	4	
Exercises, Evaluations, and Corrective Actions		4
Public Education and Information		4
Evacuation or In-Place Sheltering	4	
Health and Medical	4	
Finance and Administration		4
Warning	4	
Laws and Authorities		4
Hazard Identification and Risk Assessment		4
Hazard Mitigation		4
Emergency Public Information	4	
Resource Management	4	4
Planning		4
Communication and Warning		4

Summary and Transition

This unit covered the functions of an emergency management program, and the difference between program and emergency functions. In unit 8, you will practice applying the principles that you learned throughout the course.



Knowledge Check

Carefully read each question and all of the possible answers before selecting the most appropriate response for each test item. Circle the letter corresponding to the answer you have chosen.

1. Which statement is true?

   a. Emergency program functions and emergency management core functions are totally separate.
   b. Emergency program functions can be emergency management functions at the discretion of the emergency manager.
   c. All emergency program functions also are emergency management core functions.
   d. Some emergency program functions also are emergency management core functions.

2. The 13 emergency management program functions are the categories reported in Capabilities Assessment for Readiness surveys.

   a. True
   b. False

3. As an emergency management core function,_____ is defined as a process to quickly procure, distribute, and utilize personnel and materials needed in an emergency.

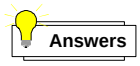
   a. Direction and Control
   b. Logistics and Facilities
   c. Resource Management
   d. Communications

4. As an emergency management program function, Resource Management is described as _____.

   a. The human resources required to carry out assigned day-to-day responsibilities
   b. An administrative system for day-to-day operation
   c. A process to quickly procure, distribute, and utilize personnel and materials needed in an emergency
   d. Meeting the needs of the population despite disruption of commerce and infrastructure

5. In the train derailment case study, what function served to provide overall leadership to the response effort?

   a. Resource Management
   b. Laws and Authorities
   c. Direction and Control
   d. Operations and Procedures



Knowledge Check (Continued)

1. d
2. a
3. c
4. a
5. c

Unit 8: Applying Emergency Management Principles

APPLYING EMERGENCY MANAGEMENT PRINCIPLES

Introduction and Unit Overview

In the previous unit, you learned about local, State, and Federal participants in emergency management programs. In this unit, you will learn how to apply the principles you have learned up until now.

Applying the Integrated Emergency Management System

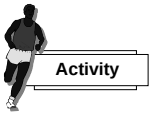
The force behind integrated emergency management must be the desire to build partnerships for safer communities.

The approach to an integrated emergency management system includes:

- All hazards.
- All resources.
- All jurisdictions.
- All emergency management phases.

An integrated approach to emergency management is based on solid general management principles, with the common theme of protecting life and property.

To achieve a truly integrated system, local, State, and Federal governments, as well as private sector agencies and citizens must share responsibility for applying resources effectively at every stage and phase of emergency management. While each group, unit, and individual in the system has its own role and function, the ultimate responsibility is shared among all. The result of their joint effort is a team product that reflects the insights, experiences and skills of the entire team.



Activity: Interdependence Within the Emergency Management Team

This activity presents a structured format with which to explore relationships among emergency personnel in various programs and functional areas. Because a central goal of this course is to promote interrelationships, the effort you devote to exploring interdependence is especially valuable.

1. *To begin, choose a role to play (not your own) from the following list of roles.*

   - Local Fire Chief
   - Local Executive Officer (Chief Elected Official)
   - Chief of Emergency Medicine at the Local Hospital
   - State Director of Emergency Services
   - Superintendent of Schools
   - Local Public Information Officer
   - Red Cross Disaster Director
   - Hazardous Chemicals Safety Officer at Local Plant
   - Vice-President of Local Utility Company
   - Vice President for Operations of Major Regional Rail Freight Carrier
   - Local Police Chief

2. *Fill out the Interdependence Worksheets on the following pages. The worksheets will ask you to consider the following factors of the role you chose:*

   - Emergency protection responsibilities
   - Possible contacts
   - Resource and information needs
   - Results or accomplishments of specified interactions
   - Possible effects

Activity: Interdependence Within the Emergency Management Team (Continued)

Proceed through your worksheets in order, completing each question before moving on to the next.

Your answers may be general. For example, if you know a *function* for a person or organization, but not the correct *title*, a description of the type is sufficient. Also, if you are unsure about a contact but think it would be valuable, include it. The value of this activity is in thinking as expansively as possible.

You may not have the detailed knowledge of this role that you have of your own, but you do not need in-depth knowledge for this activity—just empathy, imagination, and appreciation for the general role of that person in all-hazards management.

Use what you know about emergency management to develop answers.

Activity: Interdependence Within the Emergency Management Team (Continued)

Interdependence Worksheets

Your Role:

In what sector do you operate in this position (Federal, State, local, or non-government)?

Briefly describe your role (in this position) in relation to:

- Mitigation/prevention.

- Emergency preparedness.

- Emergency response.

- Recovery.

Activity: Interdependence Within the Emergency Management Team (Continued)

Name ten contact points (by position or role) in various functional areas with whom you should interact. Consider contacts in all three levels of government as well as with voluntary organizations and business/industry. To generate this list, review your role statements and consider what you will need from others to accomplish that role.

Position or role of contact	In what sector is this contact?

Activity: Interdependence Within the Emergency Management Team (Continued)

Select five of the contacts you listed on the previous page. For each, name one activity you will undertake involving this contact. Then briefly describe information or resources you will need from that person. Consider needs in all four emergency management phases (mitigation, preparedness, response, recovery).

Contact	Result or Activity	Phase	Your Needs



Activity: Problem Solving In Crisis-Prone County

When you completed the Interdependence Worksheets on the preceding pages, you practiced thinking about an integrated emergency management system as a network of relationships. In this activity, you will apply your knowledge of the fundamental principles and advantages and of an integrated emergency management system. The purpose of this activity is to practice taking an integrated emergency management approach to a specific problem.

You meet a young woman at a business meeting. She is a new employee in Crisis-Prone, a county in another part of your State. She has a background in management and administration and is anxious to prove herself, yet she also is mindful of politics and diplomacy.

Six weeks later, you receive a letter from her asking for your assistance in an emergency management project.

Review this letter closely and prepare a written outline of an appropriate response. The questions that follow the letter will help you prepare the outline.

Her letter begins on the next page, and a structured guideline for outlining your response follows it. Be sure to cover, at a minimum, all issues identified in the guideline.

Activity: Problem Solving In Crisis-Prone County (Continued)

CRISIS-PRONE COUNTY

Division of Administration
Office of the County Executive

Dear _____:

Since our last conversation, Crisis-Prone County has experienced a near catastrophe. As a result, the county commissioners have decided that it is time to review the county's ability to respond to emergencies and to ascertain whether there is a need for a program beyond what is provided by the county.

The task of developing a briefing for the commissioners has been assigned to me. This is an opportunity to give them their first introduction to integrated emergency management, but, as a junior analyst in the organization, I will need to rely on the expertise of my more knowledgeable colleagues to develop an outline that sufficiently explains an integrated approach to emergency management.

The event that brought this need to the attention of the commissioners demonstrates both the nature and the urgency of our situation. As you know, our county has a population of 650,000 people and is situated primarily in urban and suburban communities. A variety of transportation systems crisscross the county, presenting a considerable resource and challenge. Substantial rail traffic passes through the county on a daily basis—including commercial freight traffic that runs adjacent to the AMTRAK passenger lines.

A week ago, a freight train carrying an explosive material derailed at a major rail crossing/intersection, just as a passenger train was passing on an adjacent track. Six of the 30 cars of the freight train derailed and were precariously perched—in such a way that any measurable jostling could have caused one or all of them to fall completely off the track, and perhaps even rupture and explode. At this time, the cause of the derailment is still under investigation.

The passengers from the AMTRAK train were evacuated (after some confusion) to a nearby auditorium, where they waited for several hours before AMTRAK could make alternative plans for them.

Meanwhile, five police officers and other public officials converged on the scene. Soon they were joined by officials from the freight and passenger lines. The group of "experts" grew substantially as time passed, and a heated debate erupted as to what steps should be taken, by whom, and when. Issues of authority and liability were raised and discussed—but never resolved. The entire discussion was observed and recorded by several reporters from newspapers, radio, and television. When the discussion concluded, it had been decided that the police chief and fire chief jointly would oversee operations to ensure the safety of life and property in the area surrounding the derailment.

Activity: Problem Solving In Crisis-Prone County (Continued)

In summary, the problem was resolved without loss of life or serious damage to property. However, media coverage of the event caused a public outcry the likes of which the county has not seen for years. Public scrutiny and demands for accountability have increased markedly. The commissioners are outraged at methods demonstrated during the event and have demanded a full inquiry and explanation of the entire episode.

So, we come to my task—preparing the initial outline of the briefing for the commissioners. While I certainly do not have any direct or significant influence on the final outcome, I am convinced that good work on this project will contribute to a more constructive approach. Any advice you can provide will be helpful. While this is all new to me, I recognize the crucial nature of integrated emergency management and want very much to cover at least the fundamentals in my submission.

I look forward to your response.

Sincerely Yours,

Jane Novice
Junior Management Analyst
Crisis-Prone County

Activity: Problem Solving In Crisis-Prone County (Continued)

1. What is the central problem presented in Jane Novice's letter?

2. What alternative solutions/responses are appropriate for Novice to consider?

3. Of the alternatives listed, which one do you prefer and recommend?

Activity: Problem Solving In Crisis-Prone County (Continued)

4. Assuming that Novice accepts your recommendation, what strategies do you suggest for implementing it?

5. Assist Novice further by briefly outlining how your recommendations and strategies for implementation might affect a situation such as the train derailment she described.

Summary and Transition

In this unit, you practiced applying emergency management principles of coordination and interdependence and explained the fundamental features of an Integrated Emergency Management System. Unit 9 will provide a summary of what you have learned in this course.



Knowledge Check

Carefully read each question and all of the possible answers before selecting the most appropriate response for each test item. Circle the letter corresponding to the answer you have chosen.

1. The Red Cross Disaster Director works in the _____sector.

   a. Federal government
   b. State government
   c. local government
   d. non-government

2. The Superintendent of Schools works in the _____sector.

   a. Federal government
   b. State government
   c. local government
   d. non-government

3. The central problem in Crisis-Prone County, as revealed by Jane Novice's letter, was:

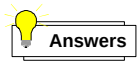
   a. Media attention that embarrassed local officials.
   b. Lack of a coordinated plan for dealing with local emergencies.
   c. Disagreements between police and public officials on resolving the derailment situation.
   d. Lack of plans for dealing with evacuated AMTRAK passengers.
   e. Failure to recognize the hazard posed by rail line locations.

4. Disagreements among police officers and public officials in Crisis-Prone County could have been avoided by:

   a. Reaching agreement on direction and control of local emergencies.
   b. Appointing the Board of Commissioners to oversee emergency operations.
   c. Assuring that a Public Information Officer is always present to advise officials.
   d. Conducting training courses on conflict resolution.

5. The best outcome of an official inquiry into the derailment incident would be _____.

   a. Banning rail traffic through populated areas
   b. Identifying officials who failed to properly perform their duties
   c. Payment of damages by the railroad carrying the explosive material
   d. Determination to develop an integrated emergency management system
   e. Banning of transport of hazardous materials through populated areas



Knowledge Check (Continued)

1. d
2. c
3. b
4. a
5. d

Unit 9: Course Summary

COURSE SUMMARY

Introduction and Unit Overview

This unit will briefly summarize what you have learned in the *Principles of Emergency Management* Course.

At the end of this unit, you should be able to:

- Discuss the main points of the course.
- Resolve any questions that you may have about any of the materials.

When you are finished with this unit, be sure to take the Final Exam, either online or using the answer sheet provided in your course packet.

Integrated Emergency Management System

When an emergency or disaster occurs:

- Agencies from different jurisdictions and government levels need to work together. Major emergencies and disasters ignore city, county, and State boundaries.
- Rapid decisionmaking is required.

Without planning and coordination, emergency operations can suffer from serious misdirection and mistakes.

An integrated emergency management system provides a conceptual framework for organizing and managing emergency protection efforts. This framework prescribes when and how local officials and agencies will work together to deal with a full range of emergencies, from natural disasters to terrorism.

Integrated Emergency Management System (Continued)

Each level of government participates in and contributes to emergency management.

- Local government has direct responsibility for the safety of its citizens, knowledge of the situation and personnel, and proximity to both the event and resources. Emergency Support Services are the departments of local government that are capable of responding to emergencies 24 hours a day. They include law enforcement, fire/rescue, and public works. They may also be referred to as emergency response personnel or first responders.

- State government has legal authorities for emergency response and recovery and serves as the point of contact between local and Federal governments.

- Federal government has legal authorities; fiscal resources; research capabilities, technical information and services, and specialized personnel to assist local and State agencies in responding to and recovering from emergencies or disasters.

The Emergency Management Cycle

Emergency activities are divided into four phases that form a cycle. The phases of the cycle are:

Phase 1: Mitigation—Taking sustained actions to reduce or eliminate long-term risk to people and property from hazards and their effects.

Phase 2: Preparedness—Building the emergency management profession to mitigate against, prepare for, respond to, and recover from any hazard by planning, training, and exercising.

Phase 3: Response—Conducting emergency operations to save lives and property by positioning emergency equipment and supplies; evacuating potential victims; providing food, water, shelter, and medical care to those in need; and restoring critical public services.

Phase 4: Recovery—Rebuilding communities so that individuals, businesses, and governments can function on their own, return to normal life, and protect against future hazards.

Following the emergency, we learn how to mitigate, prepare, and respond better. As we revise our efforts, the cycle repeats.

The Plan as Program Centerpiece

Between emergencies and disasters, emergency managers can focus on mitigation and preparedness measures. Hazard analysis is a crucial first step.

Hazard analysis determines:

- What can occur.
- How often it is likely to occur.
- The devastation it is likely to cause.
- How likely it is to affect the community.
- How vulnerable the community is to the hazard.

The first step is to develop a list of hazards that may occur in the community.

Next, hazard profiles should address each hazard's:

- Duration.
- Seasonal pattern.
- Speed of onset.

The availability of Warnings also will play a crucial role in a hazard profile.

Hazard-specific information is combined with a profile of your community to determine the community's vulnerability—or risk of damage—from the hazard.

After information about the community is gathered, emergency managers use it to develop the community's hazard analysis. After a hazard and community profile has been compiled, it is helpful to quantify the community's risk by merging the information so that the community can focus on the hazards that present the highest risk.

Risk is the predicted impact that a hazard would have on people, services, and specific facilities and structures in the community. A severity rating quantifies the expected impact of a specific hazard.

Planning and Coordination

An Emergency Operations Plan (EOP) is a key component of an emergency program.

- The emergency program is in continuous operation and includes non-emergency activities, such as training and exercises.
- The EOP is activated to guide response to emergencies, and is only in effect during emergencies.

When an emergency threatens or strikes, the community must be prepared to take immediate action. An EOP describes:

- What emergency response actions will occur. . .
- Under what circumstances. . .
- Using what resources. . .
- Who will be involved and by what authority.

An EOP consists of the following components:

- The Basic Plan
- Annexes
- Appendices
- SOPs

The EOP provides overall authority, roles, and functions during emergencies.

An Emergency Operation Center (EOC) is a central location where agency representatives can coordinate and make decisions when managing an emergency response. EOC personnel do not control the on-scene response but help on-scene personnel by establishing priorities, coordinating the acquisition and assignment of resources, and acting as a liaison with other communities and the State. The EOC is a place for working together.

The Incident Command Center (ICS) is an emergency management model for command, control, and coordination of a response operation. ICS is a method of working together according to the EOP.

Planning and Coordination (Continued)

Conclusion of mutual aid agreements to augment local resources is an important part of developing and maintaining an emergency management program.

In any emergency or disaster, mutual aid partners may be able to provide:

- Communications capability.
- Emergency personnel.
- Overall management strategy and program management.
- Equipment such as bulldozers or dump trucks.
- Sandbags.
- Facilities such as warehouses or temporary shelters.

The best way to communicate the plan to response agencies that are responsible for implementing the plan is through training and exercising.

Training is critical to response personnel so that they know:

- What they are to do.
- When they are to do it.
- How they are to do it.

Functions of an Emergency Management Program

There are two ways to categorize emergency management activities:

- Emergency management core functions that are performed during emergencies.
- Emergency management program functions that continue on a day-to-day basis.

The eight emergency management core functions performed during emergencies are:

1. Direction and control.
2. Communications.
3. Warning.
4. Emergency public information.
5. Evacuation (or in-place sheltering).
6. Mass care.
7. Health and medical.
8. Resource management.

Functions of an Emergency Management Program (Continued)

Day-to-day emergency management program functions include:

- Hazard Identification and Risk Assessment.
- Hazard Mitigation.
- Resource Management.
- Planning.
- Direction and Control.
- Communication and Warning.
- Operations and Procedures.
- Logistics and Facilities.
- Training.
- Exercises, Evaluations, and Corrective Actions.
- Public Education and Information.
- Finance and Administration.

Emergency Management Program Partners

Emergency management partners include local, State, and Federal emergency managers.

The local Emergency Program Manager has the day-to-day responsibility of managing emergency programs and activities. The role entails coordinating all aspects of a jurisdiction's mitigation, preparedness, response, and recovery capabilities.

The State's role is to supplement and facilitate local efforts before, during, and after emergencies. The State must be prepared to maintain or accelerate services and to provide new services to local governments when local capabilities fall short of disaster demands.

Emergency Management Program Partners (Continued)

The State provides direct guidance and assistance to local jurisdictions through program development, and it channels Federal guidance and assistance down to the local level. In a disaster the State office helps coordinate and integrate resources and apply them to local needs. The State's role might be best described as "pivotal."

The Federal government provides legislation, Executive Orders, and regulations that influence all disaster activities. It also maintains the largest pool of fiscal resources that can be applied to emergency management. Assistance may take the form of fiscal support, technical assistance, and information about materials, personnel resources, and research. FEMA takes a lead role in national preparedness for major crises. It also plays coordinating and supportive/assistance roles for integrated emergency management in partnership with State and local emergency management entities.

Applying Emergency Management Principles

Emergency management partners at all levels need to form interdependent networks to function as a team when responding to a given emergency situation.

You practiced describing a network of relationships connected to one emergency management system participant. You also provided a rationale for developing an integrated emergency management system in Crisis-Prone County.

Next Steps

You have now completed IS 230 and should be ready to take the Final Exam.

Complete the final exam in the back of the book by marking the correct responses.

To submit the final exam online, go to http://www.fema.gov/emiweb/IS and click on the courses link. Click on the title for this course, and scroll down the course description page to locate the final exam link. After you have selected the final exam link and the online answer sheet is open, transfer your answers, and complete the personal identification data requested.

To submit the final exam by mail using the standard answer sheet, follow the instructions printed on the form.

Appendix A: Job Aid

Job Aid 5.1: Hazard Analysis Worksheet

Hazard: _____

Frequency of Occurrence:

- ☐ ***Highly likely*** (Near 100% probability in the next year)
- ☐ ***Likely*** (Between 10% and 100% probability in the next year, or at least one chance in the next 10 years)
- ☐ ***Possible*** (Between 1% and 10% probability in the next year, or at least one chance in the next 100 years)
- ☐ ***Unlikely*** (Less than 1% probability in the next 100 years)

Seasonal pattern?

- ☐ No
- ☐ Yes. Specify season(s) when hazard occurs: _____

Potential Impact:

- ☐ ***Catastrophic*** (Multiple deaths; shutdown of critical facilities for 1 month or more; more than 50% of property severely damaged)
- ☐ ***Critical*** (Injuries or illness resulting in permanent disability; shutdown of critical facilities for at least 2 weeks; 25% to 50% of property severely damaged)
- ☐ ***Limited*** (Temporary injuries; shutdown of critical facilities for 1-2 weeks; 10% to 25% of property severely damaged)
- ☐ ***Negligible*** (Injuries treatable with first aid; shutdown of critical facilities for 24 hours or less; less than 10% of property severely damaged)

Are any areas or facilities more likely to be affected (e.g., air, water, or land; infrastructure)? If so, which?

Job Aid 5.1: Hazard Analysis Worksheet (Continued)

Speed of Onset:

- ☐ ***Minimal or no warning***
- ☐ ***6 to 12 hours warning***
- ☐ ***12 to 24 hours warning***
- ☐ ***More than 24 hours warning***

Potential for Cascading Effects?

- ☐ No
- ☐ Yes. Specify effects:

Appendix B: Acronym List

ACRONYM LIST

CAR	Capabilities Assessment for Readiness
CERT	Community Emergency Response Team
DOD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
DMAT	Disaster Medical Assistance Team
DMORT	Disaster Mortuary Team
EEI	Essential Elements of Information
EMA	Emergency Management Agency
EMAC	Emergency Mutual Aid Compacts
EMI	Emergency Management Institute
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPI	Emergency Public Information
ESFs	Emergency Support Functions
FEMA	Federal Emergency Management Agency
FRP	Federal Response Plan
GAR	Governor's Authorized Representative
HHS	Department of Health and Human Services
IACP	International Association of Chiefs of Police
ICP	Incident Command Post
ICS	Incident Command System
JIC	Joint Information Center
NEST	Nuclear Emergency Support Team
NFA	National Fire Academy
NFPA	National Fire Protection Association
NSDS	National Safety Data Sheet
PDS	Professional Development Series
PIO	Public Information Officer
SBA	Small Business Association
SOPs	Standard Operating Procedures

TTY	Text Telephone
USDA	U.S. Department of Agriculture

Appendix C: Emergency Supply Kit

Emergency Supply Kit

Water

Store water in plastic containers such as soft drink bottles. Avoid using containers that will decompose or break, such as milk cartons or glass bottles. A normally active person needs to drink at least 2 quarts of water each day. Hot environments and intense physical activity can double that amount. Children, nursing mothers, and ill people will need more.

- Store 1 gallon of water per person per day (2 quarts for drinking, 2 quarts for food preparation/sanitation.)*
- Keep at least a 3-day supply of water for each person in your household.

If you have questions about the quality of the water, purify it before drinking. You can heat water to a rolling boil for 10 minutes or use commercial purification tablets to purify the water. You can also use household liquid chlorine bleach if it is pure, unscented 5.25% sodium hypochlorite. To purify water, use the following table as a guide:

Ratios for Purifying Water with Bleach

Water Quantity	Bleach Added
1 Quart	4 Drops
1 Gallon	16 Drops
5 Gallons	1 Teaspoon

After adding bleach, shake or stir the water container and let it stand 30 minutes before drinking.

Emergency Supply Kit (Continued)

Food

Store at least a 3-day supply of nonperishable food. Select foods that require no refrigeration, preparation, or cooking and little or no water. If you must heat food, pack a can of Sterno®. Select food items that are compact and lightweight. *Include a selection of the following foods in your Emergency Supply Kit:

- Ready-to-eat canned meats, fruits, and vegetables
- Canned juices, milk, soup (if powdered, store extra water)
- Staples—sugar, salt, pepper
- High-energy foods—peanut butter, jelly, crackers, granola bars, trail mix
- Vitamins
- Foods for infants, elderly persons, or persons on special diets
- Comfort/stress foods—cookies, hard candy, sweetened cereals, lollipops, instant coffee, tea bags

First Aid Kit

Assemble a first aid kit for your home and one for each car. A first aid kit* should include:

- Sterile adhesive bandages in assorted sizes
- 2-inch sterile gauze pads (4-6)
- 4-inch sterile gauze pads (4-6)
- Hypoallergenic adhesive tape
- Triangular bandages (3)
- Needle
- Moistened towelettes
- Antiseptic
- Thermometer
- Tongue blades (2)
- Tube of petroleum jelly or other lubricant
- Assorted sizes of safety pins
- Cleaning agent/soap
- Latex gloves (2 pairs)
- Sunscreen
- 2-inch sterile roller bandages (3 rolls)
- 3-inch sterile roller bandages (3 rolls)
- Scissors
- Tweezers

Nonprescription Drugs

- Aspirin or nonaspirin pain reliever
- Antidiarrhea medication
- Antacid (for stomach upset)
- Syrup of Ipecac (used to induce vomiting if advised by the Poison Control Center)
- Laxative
- Activated charcoal (used if advised by the Poison Control Center)

Emergency Supply Kit (Continued)

Tools and Supplies

- Mess kits, or paper cups, plates and plastic utensils*
- Emergency preparedness manual*
- Battery-operated radio and extra batteries*
- Flashlight and extra batteries*
- Cash or traveler's checks, change*
- Nonelectric can opener, utility knife*
- Fire extinguisher: small canister, ABC type
- Tube tent
- Pliers
- Tape
- Compass
- Matches in a waterproof container
- Aluminum foil
- Plastic storage containers
- Signal flare
- Paper, pencil
- Needles, thread
- Medicine dropper
- Shutoff wrench, to turn off household gas and water
- Whistle
- Plastic sheeting
- Map of the area (for locating shelters)

Sanitation

- Toilet paper, towelettes*
- Soap, liquid detergent*
- Feminine supplies*
- Personal hygiene items*
- Plastic garbage bags, ties (for personal sanitation uses)
- Plastic bucket with tight lid
- Disinfectant
- Household chlorine bleach

Clothing and Bedding

*Include at least one complete change of clothing and footwear per person.

- Sturdy shoes or work boots*
- Rain gear*
- Blankets or sleeping bags*
- Hat and gloves
- Thermal underwear
- Sunglasses

Emergency Supply Kit (Continued)

Special Items

Remember family members with special needs, such as infants and elderly or disabled persons.

For Baby*

- Formula
- Diapers
- Bottles
- Powdered milk
- Medications

For Adults*

- Heart and high blood pressure medication
- Insulin
- Prescription drugs
- Denture needs
- Contact lenses and supplies
- Extra eye glasses
- Entertainment—games and books

- Important Family Documents —keep these records in a waterproof, portable container
- Will, insurance policies, contracts, deeds, stocks and bonds
- Passports, social security cards, immunization records
- Bank account numbers
- Credit card account numbers and companies
- Inventory of valuable household goods, important telephone numbers
- Family records (birth, marriage, death certificates)

FINAL EXAM

1. The overall goal of emergency management is to:

   a. Respond quickly to all emergencies and disasters.
   b. Save lives, protect property, and protect the environment.
   c. Prevent disasters from occurring.
   d. Restore communities to pre-disaster condition.

2. The role of the local Emergency Program Manager could best be described as :

   a. Coordinating resources and activities in all four phases of emergency management.
   b. Always directing all operations at the scene of an emergency.
   c. Usually working directly with the State and Federal governments.
   d. Issuing press releases and making statements to the media about disasters.

3. A request for a Presidential Declaration of Disaster must be made by the:

   a. Chief elected official of the affected area.
   b. Governor of the affected State.
   c. State Emergency Program Manager of the affected State.
   d. Designated Federal Coordinating Officer.

4. An example of a Mitigation phase activity would be:

   a. Training.
   b. On-site operations to provide emergency assistance.
   c. Building earthquake-resistant structures in earthquake zones.
   d. Debris removal.

5. Providing Disaster Unemployment Assistance is an example of a _____ phase activity.

   a. Mitigation
   b. Preparedness
   c. Response
   d. Recovery

6. Most emergencies are handled at the local level without State or Federal assistance.

   a. True
   b. False

7. Which is the guiding document used to coordinate response and recovery actions?

   a. Standard Operating Procedures
   b. Emergency Operations Plan
   c. Risk Management Plan
   d. Community Comprehensive Plan

8. An individual will have responsibilities primarily in one of the four functional groups within emergency management. These functional groups are:

   a. Mitigation, Preparedness, Response, and Recovery.
   b. Incident Command, Safety, Operations, and Administration.
   c. Federal government, State government, local government, private sector.
   d. Policy, Coordination, Operational Response, and Field Response.

9. Which statement is true?

   a. The four phases of the emergency management cycle usually overlap.
   b. The four phases of the emergency management cycle have distinct beginnings and endings.

10. A hazard is defined as:

    a. A quantified measure of risk.
    b. A severity rating.
    c. A dangerous event or circumstance that has the potential to lead to an emergency or disaster.
    d. Vulnerability to a technological hazard.

11. One of the planning factors to be considered during a hazard analysis is:

    a. Federal assistance that may be available.
    b. How quickly the community can recover.
    c. The speed of onset for each hazard.
    d. What local industry can contribute to the response.

12. Training and exercising is an example of a _____ activity.

    a. Mitigation
    b. Preparedness
    c. Response
    d. Recovery

13. After a Presidential Disaster Declaration for individual assistance, Federal help may be for:

    a. Aiding local officials.
    b. Building contractors' repairs.
    c. Medical and funeral expenses of individuals.
    d. Contractors hauling debris.

14. Demographics is an element to survey for response priorities in a(n):

    a. Multi-hazard Mitigation Plan.
    b. Emergency Operations Plan.
    c. Hazard analysis.
    d. Risk assessment.

15. The predicted impact that a hazard would have on people, services, and specific facilities and structures in the community is called:

    a. Hazard identification.
    b. Risk.
    c. Crisis index.
    d. Sector profile

16. The _____ serves as a model for command, control, and coordination of a response operation.

    a. Emergency Operations Center
    b. Standard Operating Procedures
    c. Incident Command System
    d. Emergency Operations Plan

17. An agreement between two government entities for mutual support to one another in time of emergency is called:

    a. Mutual Aid.
    b. Services Contract.
    c. Reciprocity.
    d Resource Sharing Contract.

18. Individuals responsible for logistics, planning, and finance during an emergency belong to which emergency management functional group?

    a. Coordination
    b. Field Response
    c. Operations
    d. Policy

19. The State government has the pivotal role of coordinating and channeling national resources to meet local needs in a major disaster.

    a. True
    b. False

20. Overall authority, roles, and functions during emergencies are established by the:

    a. Emergency Operations Center.
    b. Emergency Operations Plan.
    c. Incident Command System.
    d. Federal Response Plan.

21. When the local community's resources are not adequate to deal with an emergency, mutual aid contracts offer a way to augment resources.

    a. True
    b. False

22. Federal agencies mobilize their resources to respond to catastrophic disaster through:

    a. The Catastrophic Response Group.
    b. A Presidential Declaration of Disaster.
    c. The Federal Response Plan.
    d. Civil Emergency Preparedness.

23. The eight emergency management core functions usually are the annexes to the Emergency Operations Plan.

    a. True
    b. False

24. The thirteen emergency management program functions are activities during emergencies, and the eight core functions reflect how day-to-day activities are organized.

    a. True
    b. False

25. Local emergency plans should be coordinated with _____.

    a. The community's comprehensive plan
    b. The Incident Command System
    c. The Federal Response Plan
    d. Congressional representatives