

## Unit Sixteen

# Personal and Local Community Disaster Preparedness

## Overview

In this unit, you will learn about personal and local community disaster plans. A local community disaster plan identifies hazards that are most likely to affect a community and prioritizes local mitigation and preparedness activities.

## Objectives

Upon completion of this unit, you should be able to:

- Define the principles of local emergency management planning
- List the components of an effective local plan
- Conduct a vulnerability analysis
- Prioritize mitigation and preparedness efforts

## The Goal of Emergency Management

The goal of emergency management is to provide protection from all hazards for the citizens, properties, and governments within the United States.

Effective emergency management includes a functional approach to all types of emergencies, cooperative planning, appropriate use of resources, and shared responsibilities among the levels of government: local, tribal, state, and federal.

The local government is responsible for emergency planning, response, and continued assessment of its ability to protect citizens and property within the community. In most cases, resources and expertise found locally can identify common hazards and prioritize mitigation and planning to reduce the impact of common hazards.

The state government is responsible for assisting communities by reviewing their plans and providing guidance. The state government also makes plans and assesses its capability to provide protection from large-scale, statewide disasters. A state will assist communities that do not have adequate resources to protect themselves or to recover from disaster.

The federal government is responsible for assisting states by reviewing plans, providing guidance, and assessing their capability to provide protection from large-scale, nationwide disasters. It provides assistance when state and local resources are insufficient. In the event of a response to a federally declared disaster, FEMA acts primarily in a coordinating role.

Although the various levels of government plan to protect their constituents, governments cannot be expected to take responsibility for every individual citizen. This is why personal disaster preparedness is the first and most effective intervention to reduce the impact of disasters.

In this unit, we will focus on personal and local community planning.

## **Personal disaster preparedness**

Community disaster preparedness plans can incorporate the care of livestock and their owners in their plans, but plans can only coordinate care. However, livestock owners have the ultimate responsibility for their animals. Community governments cannot be expected to provide the level of care that individuals need. Therefore, the best way to be prepared is to create a personal emergency plan that includes provisions to care for your livestock. Part of this plan should be a regular safety inspection. The appendix in this unit includes a form, used by some insurance agents, that will help you to identify obvious farm fire and liability hazards.

Once you develop your personal emergency management plan, you will find it much easier to understand the actions of official emergency managers and contribute to the disaster response.

## **Vulnerability Analysis**

To prepare yourself to deal with various types of hazards, you must learn about the potential dangers and which ones are most likely to affect you. Once you have made this determination, the next step is to find out how much damage these hazards could cause in your community. This process is called vulnerability analysis and is the basis for prioritizing disaster mitigation and preparedness efforts.

## **Assessing local hazards**

As you read through each unit, you determined your vulnerability to various types of hazards. As you went through the course, you should have transferred your hazard vulnerability scores to the table that follows. Based on the scores, rank your vulnerability to hazards from 1 to 10. The hazard with the highest score will be 10 and the hazard with the lowest score will be 1.

<b>Hazard</b>	<b>Hazard Vulnerability Score</b>
Summer Storms	(from page 5-13) _____
Winter Storms	(from page 6-13) _____
Fire	(from page 7-15) _____
Hurricane	(from page 8-14) _____
Landslides	(from page 9-11) _____
Earthquakes	(from page 10-12) _____
Floods	(from page 11-16) _____
Intoxication	(from page 12-11) _____
Transportation Accidents	(from page 13-11) _____
Extreme Heat	(from page 14-13) _____
Disease Outbreak	(from page 15-15) _____

## **Ranking your vulnerability to local hazards**

Now enter the five highest ranked hazards below. If there is a tie in rank among two hazards, rank the hazard that has occurred most commonly first. These are the most common hazards that you face and the hazards on which you should concentrate your mitigation efforts.

<b>Rank</b>	<b>Hazard</b>
1	
2	
3	
4	
5	

**Action**

Pay special attention to the units in which these hazards are described. You can also research other texts for more information on these hazards.

Once you have done all you can to mitigate these hazards on your farm, you should be in a position to work effectively with your local emergency manager to mitigate similar hazards in your community.

**Vulnerability to the consequences of disasters**

As you studied each unit, you also determined your vulnerability to various consequences of disasters. Transfer your consequence vulnerability scores to the table that follows. Based on the scores, rank your vulnerability to the consequences from 1: the consequence with the lowest score to 10: the consequence with the highest score.

Consequence	Vulnerability Score
Communication challenges	(from page 5-13) _____
Infrastructure failure	(from page 6-13) _____
Public and animal health risk	(from page 7-15) _____
Animal evacuation	(from page 8-14) _____
Animal escape / Identification	(from page 9-11) _____
Hazardous materials and contamination	(from page 10-12) _____
Waste spills	(from page 11-16) _____
Carcass disposal	(from page 12-11) _____
Euthanasia, Stress	(from page 13-11) _____
Animal welfare	(from page 14-13) _____
Public concern	(from page 15-15) _____

## Ranking your vulnerability to likely consequences

Now enter the five highest ranked consequences below. If there is a tie in rank among two consequences, rank the consequence that you think is most likely to occur first. These are the consequences that are most likely to cause disruption to you in a disaster. Therefore, you should concentrate your mitigation and preparedness efforts on these.

As with the hazards, it is advisable for you to review each of the units in which these consequences are described. You can also research other texts and discuss them with your neighbors, others in the industry, and your local emergency manager.

Once you have done all you can to mitigate these consequences on your farm, you should be in a position to work with your local emergency manager to mitigate similar consequences in your community.

Rank	Consequence
1	
2	
3	
4	
5	

Now that you have ranked your vulnerability to local hazards and their consequences, think back to the questions on page 1-6. Reread the questions, thinking about the results of your analysis and the steps you can take on a personal level and within your community to lessen your vulnerability.

## Mitigation of Hazards

There are many different mitigation strategies, some of which require money, but most of which use awareness, foresight, and creative efforts. The following examples are intended to get you thinking about ways to mitigate hazards and their consequences in your own circumstances.

## **Prevent the creation of the hazard in the first place**

This is the most basic mitigation strategy and is carried out through a community's fire regulations, building codes, and other ordinances. For example, the requirement that all public buildings have sprinkler systems is a mitigation technique against a major fire. Ensuring that your barn conforms to local building codes or retrofitting your existing structures is a way of mitigating fire or building collapse.

## **Reduce or limit the amount or size of the hazard manufactured**

There are several ways to reduce or limit the amount or size of a hazard. Some of these are listed below.

Restrict the use of hazardous chemicals to specific areas on a farm or within a community.

Surround the hazard by some type of containment structure, such as an effective storage plan for hazardous chemicals on your farm.

## **Modify the basic qualities of a hazard**

Suppose that dangerous chemicals were packaged with a neutralizing agent next to them. If the chemical container were damaged, the neutralizing agent would automatically release, thus minimizing the toxic effects of the spilled chemical. In other cases, a distinctive smell may be added to odorless liquid propane gas so people could detect its presence and avoid danger.

## **Modify the rate or spatial distribution of release of the hazard**

Suppose that the federal dam safety inspection program detected a crack or some other sign of instability in a dam. The water behind the dam could be lowered gradually so as not to endanger the environment down-river, while also relieving pressure on the dam until repairs are made. The use of levees may reduce damage in some areas and increase it in others.

## **Engage in research to eliminate a particular hazard**

Private industry and the federal government put money into research to develop ways of making materials (like building materials) and products (like automobiles) safer.

## **Provide information**

Public information is key to preventing a wide range of emergencies. The disclosure of potential hazards through reports to land and structure buyers or chemical users is one form of public information that can be required.

## **Emergency Operations Planning**

Emergency management works when you and your local, state, and federal government fulfill emergency management responsibilities. Volunteer organizations also have important responsibilities during disasters. This next section outlines local community disaster preparedness.

Regardless of how many resources you have in the community, putting them to use without a plan is of little value. A plan avoids duplication of resources and response efforts and allows you to effectively integrate with the State and Federal response.

When a disaster requires outside assistance, it is best when a local community understands its priorities for recovery and recognizes decision-makers in rebuilding its infrastructure and services. For these reasons, having a functional local emergency operations plan in place before a disaster strikes is vitally important.

A community plan that has the same format as other plans from higher levels of government ensures effective collaboration in the event of a large-scale disaster.

FEMA provides guidance to local emergency operations planners for developing EOPs under its Integrated Emergency Management System (IEMS). The *Guide for All-Hazard Emergency Operations Planning* (State and Local (SLG) 101) details plan development, responsibilities and tasking, including the responsibilities for the care of animals. Planners and emergency managers should work together to write livestock-related sections of preparedness and planning documents.

## **Local government responsibilities**

Local governments make plans and provide resources to protect their citizens from the hazards that threaten their communities. This is done through mitigation activities, preparedness plans, response to emergencies, and recovery operations.

Wherever you live within the United States, a county or municipal agency has been designated as your local emergency management agency. The local government level is the most important at which to develop emergency management plans because local governments serve as the link between you and the state and federal agencies in the emergency management network.

The following table lists responsibilities of local governments in terms of emergency management.

<b>Local Community Agencies' Roles</b>
<ul style="list-style-type: none"> <li>♦ Establishing a Local Emergency Planning Committee (LEPC)</li> <li>♦ Identifying hazards and assessing their potential risk to the community</li> <li>♦ Determining the community's capability to mitigate against, prepare for, respond to, and recover from major emergencies</li> <li>♦ Identifying and employing methods to improve the community's emergency management capability through efficient use of resources, improved coordination, and cooperation with other communities and with the state and federal governments</li> <li>♦ Establishing mitigation measures such as building codes, zoning ordinances, or land-use management programs</li> <li>♦ Developing and coordinating preparedness plans</li> <li>♦ Establishing warning systems</li> <li>♦ Stocking emergency supplies and equipment</li> <li>♦ Educating the public and training emergency personnel</li> <li>♦ Assessing damage caused by the emergency</li> <li>♦ Activating response plans and rescue operations</li> <li>♦ Ensuring that shelter and medical assistance are provided</li> <li>♦ Recovering from the emergency and helping citizens return to normal life as soon as possible</li> </ul>

### **Characteristics of a good plan**

The plan should provide for an organizational structure and offer a definite course of action to meet emergencies or disasters. Here are several characteristics of a good EOP:

- ➞ Based on facts or valid assumptions
- ➞ Includes a community resource inventory
- ➞ Shows the organizational structure
- ➞ Written in simple language
- ➞ Developed in coordination with all the stakeholders

Good plans also avoid duplication and conflicts in tasks. Independent plans, such as those for large farms, can be integrated with the overall emergency management plan through annexes.

## The Emergency Operations Plan

An Emergency Operations Plan (EOP) contains information on how citizens, property, and animals will be protected in an emergency. It describes actions that may be required for natural or technological hazards. An EOP details the tasks for specified organizations and individuals at projected places and times based on established objectives, assumptions, and a realistic assessment of capabilities.

## Characteristics of an EOP

An effective EOP is based on three related concepts:

- Plans work best within organizational structures that are responsive to non-emergency duties. If a job is done well every day, it is also done best by that organization in an emergency.
- Crises should be met at the lowest and most immediate level of government. Plans call for local response supplemented, if necessary, by the next higher governmental level.
- Voluntary response and involvement of the private sector (business, industry, and the public) should be sought and emphasized. The emergency management partnership is important to all phases and types of disasters.

The EOP is the formal goal of planning. It should cover all aspects of emergency management and all types of emergencies.

## Components of an EOP

There are three basic components to the EOP. Your EOP should:

1. Serve as an overview of your jurisdiction's approach to emergency management, including broad policies, plans, and procedures.
2. Contain functional annexes that address specific activities critical to emergency response and recovery.
3. Contain hazard-specific appendices that support each functional annex (as necessary) and contain technical information, details, and methods for use in emergency operations. It must address the scope of interventions and contain an appendix where the details of operations are listed.

## Getting started

The planning process is just as important as the final plan itself. Like the response to a disaster, developing a plan is a team effort. During the planning process, people and organizations learn to work as a team.

Start by forming a committee. The committee should be co-chaired by an emergency manager and a representative from the livestock industry. County extension educators, producers and representatives of agricultural associations, and other permanent businesses, or veterinarians are examples of suitable livestock industry representatives.

Committee members should ideally possess the following credentials:

- Authority to represent
- Control over resources that can be used in an disaster
- Experience or knowledge of disasters

In cases where community plans for livestock and their owners are not well developed, the initiative for plan development may come from emergency management officials or the livestock industry.

## Partnerships

There are many local resources that can be tied into a community emergency operations plan and that can strengthen a community's level of resistance to disasters.

### Private-public partnerships

Collaboration between local government and the private sector can help secure access to communications and the incident site, and other resources that may be needed in a disaster. Producers and other businesses may supply trained operators for resources and designate the amount of compensation required.

### Local volunteer organizations

Many voluntary agencies and organizations have local representation. One of the most important voluntary organizations in terms of disasters is the American Red Cross. The American Red Cross is a humanitarian organization, chartered by Congress and led by volunteers, to provide relief to victims of disasters. Each local chapter is responsible for providing disaster relief services in the community it serves. In large-scale disasters, volunteers from across the country may respond. The American Red Cross provides individuals and families with food, shelter, first aid, clothing, bedding, medicines, and other services.

## Preliminary plans

To begin the planning process, determine if your local government has an EOP. If you do not have a plan, make a commitment to design an EOP and set a deadline for completion. The steps outlined below can be used as guidelines for starting a plan. If you have a plan, use the ideas below to evaluate and improve your current plan.

Build a plan by determining:

- Who has command and authority
- The availability and use of the Emergency Operation Center
- Types of communication and under what circumstances they will be operational
- Potential hazards specific to your area
- Emergency organizations and functions
- Standard operating procedures for response

## Community vulnerability assessment

Similar to the personal vulnerability assessment you conducted throughout this course, communities conduct similar assessments using a similar process.

There are many factors to consider when determining dangers to a community from natural hazards, technological hazards, or national security emergencies. These factors include:

- Your community's past history of emergencies caused by the hazard
- Geographical considerations
- Community characteristics
- Distance from transportation routes, large urban areas, large industrial areas, or military installations

Your local emergency manager regularly conducts vulnerability analyses for your community. Ask for the results of these analyses and compare them with your personal vulnerability assessment.

Knowing the size and composition of the livestock industry in your community is critical to understanding the risks associated with disasters and is part of a comprehensive vulnerability analysis. Review Unit 2 to determine:

- What type of livestock industry is present in your community
- What role the livestock industry plays
- How many people are involved in these industries
- What economic value does it have

## Testing the EOP

Once an EOP has been developed, it must be tested. The purpose of testing is to identify areas for improvement and to be better prepared for a real disaster. There are five different types of emergency management exercises. These levels of tests build upon each other and should be used consecutively.

Information on all types of exercises is provided in FEMA's *Exercise Design Course* and in the *Guide to Emergency Management Exercises* (Student Manual 170.2 available from your state emergency management office).

## Orientation

This is the basic level of test used as a building block to more difficult exercises. During the orientation, a group reviews the plan and discusses its applicability.

## Table-top exercise

The focus in these exercises is on training and familiarization with roles, procedures, responsibilities, and personalities in the jurisdiction's emergency management system. Tabletop exercises are based on theoretical scenarios.

## Functional exercise

These usually take place inside, such as in a classroom or actual emergency operating center. Functional exercises may include various forms of message traffic (written, telephone, radio), and an attempt to recreate a realistic environment while you respond.

## Drill

A drill is a hands-on exercise of a selected part of the plan. Usually drills are used to rehearse Standard Operating Procedures or other operations that may be performed in a disaster.

## **Full-scale exercise (Simulations)**

This type of exercise combines a functional exercise with a drill in which field personnel of one or more emergency services actually operate. The actual movement of equipment and personnel is important for the preparedness of individual emergency service organizations. To ensure the success of a full-scale exercise, you must have first successfully completed several drills.

## **When to test the EOP**

Tests and exercises to improve emergency operations should be conducted regularly. Tabletop and functional exercises and drills should be conducted every 6 months. Full-scale exercises should be conducted every 2 years. The complexity of exercises should build upon each other.

**Learning Check**

**Directions:** Determine if the following statements are true or false based on the material in this unit. When you have finished, check your answers on page 16-18.

1. Personal disaster preparedness is the least effective level at which to reduce the impact of disasters.  
True or False?
2. Animal owners have the ultimate responsibility for their animals.  
True or False?
3. A vulnerability analysis serves to identify and prioritize mitigation efforts.  
True or False?
4. Mitigation includes preventing the creation of the hazard in the first place.  
True or False?
5. Mitigation includes reducing the amount or size of a hazard.  
True or False?
6. Mitigation includes modifying the basic qualities of a hazard.  
True or False?



**Learning Check**

7. Local plans allow communities to integrate with state and federal response to disasters.

True or False?

8. EOPs work best if they rely on organizational structures specifically designed for disaster operations.

True or False?

9. The planning process is often just as important as the plan that results.

True or False?

10. One of the purposes of an EOP is to provide an overview of the community's jurisdiction.

True or False?

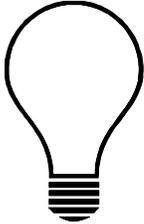
11. Hazard-specific details in an EOP should be included in the plan's appendices.

True or False?



**Learning Check**

12. An EOP committee that develops plans for the livestock industry only needs representatives from the emergency management staff.  
True or False?
  
13. When members of an EOP committee represent an organization they should have the authority to do so.  
True or False?
  
14. Private-public sector partnerships can expand the disaster response capability of a community.  
True or False?
  
15. Full-scale exercises should only be conducted after several other types of exercises have tested the quality of an EOP.  
True or False?



**Answers**

For every question that you answered incorrectly, review the page listed next to the answer to find out why your answer was incorrect.

1. False.....16-1
2. True.....16-2
3. True.....16-2
4. True.....16-5
5. True.....16-7
6. True.....16-7
7. True.....16-7
8. False.....16-9
9. True.....16-10
10. True.....16-9
11. True.....16-10
12. False.....16-10
13. True.....16-10
14. True.....16-11
15. True.....16-13

## **Summary**

This unit described the principles of personal and local community disaster planning. It also demonstrated how to identify hazards that are most likely to affect your community and how to prioritize mitigation and preparedness efforts.