IS-011 May '98

EMERGENCY MANAGEMENT INSTITUTE

ANIMALS IN DISASTER

Module B
Community Planning

FEDERAL EMERGENCY MANAGEMENT AGENCY

A note on the "Animals in Disaster" Independent Study Course:

This course is in two modules:

- **IS-010, Animals in Disaster: Module A, Awareness and Preparedness**

- **IS-011, Animals in Disaster: Module B, Community Planning**

For administrative purposes, the two modules have been designated as separate Independent Study courses. Upon successful completion you will receive a Certificate of Achievement for each course. You will also be eligible for one college credit per course.

You must apply each course.

A Two Module Course

Animals in Disasters

Module B
Community Planning

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Dear Participant:

Whenever and wherever disaster strikes, people and their property are affected. Over the years, we have seen whole communities destroyed and lives devastated. A problem that is increasingly being recognized is that disasters also affect animals. In times of crises, people worry not only about their family but also about the family pet; farmers worry about the livestock they are stewards of; the horse owner worries about their prize show horse or backyard pony. More and more, emergency management and agriculture officials are having to include animal issues in planning and preparedness.

We are pleased to present the Federal Emergency Management Agency's (FEMA) new two-module independent study course, "Animals in Disaster." For the first time, FEMA is addressing this important issue through training and education. A major theme throughout the course is that individuals must prepare and plan for their animals. In a flood or earthquake, State and local government must first of all take care of people; government officials will not have time to deal with all animal problems. Therefore, it is up to the individual to see that their animals are taken care of as best as possible. It is also imperative that animal owners work with one another through mutual interest groups such as kennel clubs and horse associations, agricultural organizations, county extension agencies and humane societies to develop plans for their animals.

This course will help you prepare to take care of animals. It will not provide answers to all of your questions or concerns but will help you formulate answers specific to your own situation. We are pleased that you care enough to take this course.

Sincerely,

James L. Witt

James L. Witt
Director

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Animals in Disasters

MODULE B
UNIT 1

Overview

Preface

Why should emergency management officials be concerned with animals in disasters? After all, they are responsible for the safety of humans, not animals. However, according to the American Veterinary Medical Association, 58.9 percent of all U.S. households own animals. For this reason, the care of animals in disasters is important to the care of humans.

This course aims to bring together emergency management officials and the animal-care community to share resources, authority and expertise. A collaborative effort between emergency management and animal-care providers can improve a community's successful disaster preparedness and response.

This course does not intend to provide details on the care of animals in disasters, but to promote personal responsibility of animal owners and care providers. It also guides emergency managers in the recruitment and use of local community resources to define, develop, teach, and implement a disaster response. Each community must tailor its plan to meet its own needs.

The purpose of this course

The purpose of this course is two-fold. Module A is intended to increase awareness and preparedness among animal owners and care providers. It includes sections on typical hazards, how these affect animals and what can be done by responsible owners to reduce the impact of disasters. It is also intended to help animal owners, care providers and industries to better understand emergency management. Module A will heighten awareness of the special issues that emergency managers need to consider when incorporating animal-care annexes into their emergency operations plans.

Module B is intended to guide emergency management officials and animal owners, care providers, and industries in preparing community disaster plans. The goal of Module B is to provide sufficient information for both groups to meet and develop meaningful and effective plans that improve the care of animals, their owners, and the animal-care industries in disasters. This course provides the basic background knowledge needed to develop a coordinated response to a disaster in which animals and their owners are affected. Further training with local or State emergency management programs is essential.

Summary of the groups that make up the animal-care community and examples of local groups that may represent them

Type of Organization	Examples
Private owners	Pet owners, livestock producers
Public owners	Native wildlife (tax payers own wildlife, which are managed by the natural resources department)
Businesses	Veterinarians, pet stores, feed stores, farmers cooperatives, animal accessory stores, department stores, boarding kennels, grooming parlors, animal transport companies, pest control companies, racetracks, renderers, slaughterhouses, circuses
Humane organizations	Humane shelters, SPCA, volunteers groups
Educational institutions	Veterinary schools, veterinary technician schools, animal science and agriculture schools and departments, zoos, aquaria
Governmental agencies	Animal care and control, U.S. Department of Agriculture, health departments, natural resources department, Cooperative Extension Services, public health services
Professional associations	Veterinary medical associations, registered veterinarian health technician associations
Other associations	Livestock producer associations, breeding clubs, riding schools, search and rescue teams, wildlife rehabilitators, youth and 4H groups

Course overview

Module A is divided into an overview, seven units of instruction, a final exam and appendices. A description of each unit is provided.

Unit 1: Overview. Preface, purpose of the course, and information on the course. (This unit is the same in both modules.)

Unit 2: Introduction. Why are animals an important consideration in disasters? This unit describes the animal-care community, the societal impact of animal ownership and introduces the concept of the human-animal bond as a major factor affecting animal owners in disasters. (This unit is the same in both modules.)

Unit 3: The four phases of emergency management. This unit introduces the activities of mitigation, preparedness, response and recovery and addresses government and individual responsibilities for carrying out these activities.

Units 4 through 6: Defining the risks and applying the four phases of emergency management. These units describe the major natural and technological hazards in the United States and provide information on typical animal-related issues that may arise in these circumstances.

Units 7 and 8: The care of animals in disasters. These units contain specific information on how to provide care for animals in disasters.

Unit 9: Module A final examination. By completing this unit and passing the exam, you may receive a certificate of completion from the Emergency Management Institute.

Unit 10: Appendices. This unit contains reference materials that supplement the course materials and indicates where further information can be obtained.

Course overview (continued)

Module B is divided into an overview, six units of instruction, a final exam and appendices. A brief description of each unit is provided to follow.

Unit 1: Overview. Preface, purpose of the course, and information on the course. (This unit is the same in both modules.)

Unit 2: Introduction. Why are animals an important consideration in disasters? This unit describes the animal-care industries, their societal impact and introduces the concept of the human-animal bond as a major factor affecting animal owners in disasters. (This unit is the same in both modules.)

Unit 3: Disaster preparedness through planning and collaboration. This unit outlines the steps needed to develop a community disaster plan that takes special consideration for animals and their owners. Suggestions are made as to how emergency management and the animal-care community can collaborate to develop an effective plan.

Unit 4: Analyzing risks affecting animals and their owners. This unit outlines the principles of identifying risks that are relevant to animals and their owners.

Unit 5: The organization of the response to disasters. This unit provides information on the official and proven methods of response to disasters. The Incident Command System and other established elements of response are described.

Unit 6: Recovering from a disaster. This unit outlines considerations for effective recovery from disasters. It also describes major sources of disaster relief.

Unit 7: Developing community support for the disaster preparedness plan. This unit suggests ways in which the community, government and citizens can be informed and inspired to support and participate in disaster planning.

Unit 8: Module B final examination. By completing this unit and passing the exam, you may receive a certificate of completion from the Emergency Management Institute.

Unit 9: Appendices. This unit contains reference materials that supplement the course materials and indicate where further information can be obtained.

How to complete the course

You will remember the material best if you do not rush through it. Take a break at the end of each section and give yourself time to think about the material. Once you feel familiar enough with the material, take the quiz at the end of the unit or section. The answers to the quizzes are provided in an appendix. There is a final examination at the end of each module.

The purpose of the final examination is to ensure you have a complete understanding of the material. You may test online at http://training.fema.gov, click on FEMA Independent Study and follow the links to the specific course
or
you may order an Opscan Answer Sheet form online at http://training.fema.gov, click on FEMA Independent Study and go to Opscan Request. Enter all of the required information and click submit. Follow the instructions on the Opscan Answer Sheet form and mail the completed form to the address on the form. Your test will be evaluated and the results will be issued to you. If you score 75 percent or above, a certificate of completion will be issued.

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Animals in Disasters

MODULE B
UNIT 2

Introduction

Overview

This unit examines the reasons why animal care during disasters is a concern for the animal owners, animal industries, emergency management, and the general public. It describes the animal-care community, examines the societal impacts of animal ownership, and introduces the concept of the human-animal bond as a major factor affecting animal owners and care providers in a disaster.

This unit is the same in both Module A and Module B. If you are already familiar with the material, you may review it, or skip ahead to Unit 3.

Objectives

Upon completion of this unit you should be able to:

- List the major reasons why it is important to consider animals in disasters
- Describe the magnitude of animal ownership in the United States
- Define the human-animal bond
- Describe the ways in which animal care and emergency management are related

Disaster preparedness

Our world is dangerous – earthquakes, tornadoes, fires, floods, hazardous chemicals, and nuclear wastes threaten us. The best disaster preparedness starts with personal protection and safety. An attitude of personal responsibility allows individuals and interest groups to identify, prioritize and mitigate issues that arise in disasters. When individuals and interest groups collaborate with emergency management officials in their communities, programs based on the community's needs, expertise and resources can be developed.

Animals in society

Our society benefits from improved efficiency and health care in livestock production systems. Emergency management and other Federal and State departments have traditionally protected these benefits in disasters. Support for animal agriculture is warranted, as the U.S. animal agriculture industry generates nearly $90 billion each year. Because agriculture now depends on fewer people to produce our nation's food supply, emergency management systems are of high priority.

In addition to livestock production, society recognizes other benefits from animals. One benefit is the improved quality of life that animal owners and care providers get from living and working with animals that are considered companions, confidants, health facilitators and status symbols. This is partly reflected by an increase in the revenue the pet industry generates. In the mid-1990s, this industry was estimated to generate between $20 and $30 billion per year.

The importance of animals in the United States is evidenced by:

- An increasing appreciation of pets as human companions, and
- A decreasing portion of the population employed in agriculture. Because of this, food production in the United States relies on fewer people.

Reflecting these changes, the media often reports the needs of animals, both domestic and wild, affected by disasters. The needs of animals and their owners have been prominent issues in several U.S. disasters.

We encourage emergency managers and the animal-care community to share their emergency plans. By doing so, expertise and resources necessary for successful disaster response may also be shared.

The following table lists examples of issues that arise because of animals in disasters.

Animals in Disasters – Issues

- After the Three Mile Island, PA, nuclear accident in 1979, many misinformed owners left animals to stray resulting in traffic accidents and an overloading of humane shelters and veterinary practices.
- During the evacuation from a large white phosphorus and liquid sulfur spill in Dayton, OH, in 1984, pet owners attempting to rescue their pets created traffic jams by driving in the opposite direction to the evacuating traffic.
- Following floods in Snohomish Valley, WA, in 1991, some farmers felt so grief-stricken by the drowning of their cows that they left agriculture altogether.
- Following the Oakland, CA, firestorm in 1991, hundreds of cats and dogs were never reunited with their owners because their owners could not be found.
- After Hurricane Andrew struck Southern Florida, in 1992, many victims were distressed when they discovered that they could not stay at public shelters if they had pets with them.
- After a tornado in West Lafayette, IN, in 1994, several animal owners in public shelters showed psychosomatic symptoms as a result of not knowing the whereabouts of their pets.
- During Georgia floods in 1994, some pet owners refused to evacuate in a timely and safe manner because they could not take their pets with them. Others were prevented from attempting to rescue their pets from flooded houses using boats.
- After a propane gas spill caused by a train derailment in 1996, all citizens of Weyauwega, WI, were evacuated. Many pets and livestock were left behind. Emergency management initiated a rescue effort.

How people respond to animals in disasters

The previous table provides examples of how animal owners and care givers may respond when animals are involved in disasters. Traditional concerns involving animals during disasters include the following:

- The spoilage of the human food and water supply;
- Animal bites; and
- Outbreaks of zoonoses (diseases transmitted between animals and people) such as rabies.

Other problems include the significant impact on public mental health due to the emotions owners feel for their animals. These issues are particularly evident in seniors and children.

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Mental health issues include:

- Feelings of guilt,
- Bereavement, and
- Anger.

Some people are more concerned for their animals in disasters than they are for themselves. This may impair their ability to make sensible decisions about their own safety and that of rescue workers. Examples include:

- Evacuation failures and re-entry attempts, and
- Unsafe rescue attempts.

There are also reports of pet owners being injured or killed attempting to rescue their animals from burning or flooded houses.

These behaviors are a major concern for emergency management personnel to whom saving human life is the highest priority. The new paradigm is that animals cannot be viewed simply as inanimate property.

Animal ownership

Approximately 50 percent of all U.S. households own a pet. This implies that during large-scale disasters, pet ownership may affect the behavior of large segments of the population at risk. Strong attachments also exist between farmers and their livestock. The potential magnitude of behavior-related problems is high, as shown in the following tables.

Frequency of animal ownership in the United States

Species	Percent of U.S. households owning pets
All pets	58.9
Dogs	31.6
Cats	27.3
Birds	4.6
Horses	1.5
Other pets	10.7

Source: U.S. Pet Ownership and Demographics Sourcebook, Center for Information Management. American Veterinary Medical Association. Schaumburg, IL. 1997

Average number of animals per household

Species	Average number of pets per pet-owning household
Dogs	1.69
Cats	2.19
Birds	2.74
Horses	2.67

Source: U.S. Pet Ownership and Demographics Sourcebook, Center for Information Management. American Veterinary Medical Association. Schaumburg, IL. 1997

The human-animal bond

The human-animal bond is a term used to describe the fundamental relationship between humans and animals. The term bonding refers to the formation of close relationships, such as those between parent and child or husband and wife. Behaviors that communicate bonding among humans are also used between humans and animals. The term human-animal bond can be applied to interactions between humans and many species, including companion animals, livestock, and wildlife. The human-animal bond involves the care for animals, and the quality of life for animals and humans.

Animals and the family

Studies show that more than 60 percent of pet owners consider their pets to be very or extremely important to their families. The majority of livestock producers have similar feelings toward their animals. The main reasons for pet ownership include:

- Personal pleasure and companionship;
- An educational experience for children (birth and death);
- Replacement of persons in their lives;
- Personal and property protection; and
- The rescue of an animal from neglect.

Livestock producers chose to support their families through the care of animals and depend on animals for their livelihood. Our nation depends on livestock producers to deliver safe, wholesome food, a healthy economy, and international trade. U.S. agricultural and domestic animal husbandry systems also contribute significantly to our country's cultural heritage and identity.

Animal care and emergency management

In disasters, some may use the way animals are cared for to measure the quality of human care provided by emergency management teams. While the care of animals in disasters should never take precedence over the care of people, providing care for animals may facilitate the personal safety and care of a large segment of the human population.

The care of animals in disasters is consistent with the American Veterinary Medical Association policy on animal welfare which states:

"Animal welfare is a human responsibility that encompasses all aspects of animal well-being, including proper housing, management, nutrition, disease prevention and treatment, responsible care, humane handling, and, when necessary, humane euthanasia."

Emergency management officials and animal-care communities should work together to define plans for the care of animals and their owners in disasters. Plans should respect the concerns of animal owners and the concerns of persons that do not own animals or have medical or psychological reasons to distance themselves from animals. Unnecessary exposure of persons with allergies or phobias against animals should be avoided. These reasons, along with food hygiene and other public health concerns, are the major reasons why animals are not allowed into human shelters.

Plans that deal with animals are also important to emergency management officials because many rescue workers will encounter animals while working in disasters. During the response, rescue workers may be pleased to find animals, but become concerned about animal care as they return to their tasks. Thus, their rescue efforts may be delayed or compromised because of their concern for the well-being of animals.

Scenarios

Let's start thinking about some emergency situations that involve animals. At this stage you are not expected to know all the answers to these questions. Although questions are given for emergency managers and owners (assume you are either an emergency manager or an owner), start thinking about how you might address solutions from the other person's point of view too. When you start to develop your community plan you may like to start with a session that tries to answer some of these questions and others from your own experience.

Scenarios

Directions: Answer the following questions in terms of: 1. What would you do to resolve these situations?, and 2. If you do not know the answers, who could help you find the answers?

1. A train carrying propane derails and prompts the immediate evacuation of 1000 households in a 2-mile radius. You estimate that approximately 50 percent of families in the evacuation area own animals.

   Emergency Managers: Do you have an action plan to evacuate people with their animals, and know where to house the animals? Describe.

   Animal owners: How would you evacuate with your animals? What supplies would you take for your pets? Where would you shelter your animals?

Scenarios

2. During Hurricane Jackie many persons become separated from their horses.

   Emergency Managers: How would you reunite the horses and their owners?

   Animal owners: There are 35 bay mares in a temporary enclosure for horses. If one of them were yours, how would you positively identify it to a security guard at the pasture?

Scenarios

3. In a tornado, a tank of herbicide is knocked over. It may have contaminated the grain bin on a dairy farm and been sprayed onto the skin of some pigs at a neighboring farm.

   Emergency Managers: What are the potential public health risks associated with contaminated livestock feed and food-producing animals?

   Animal owners: Who would you contact to determine the safety of your cows' feed and to determine the potential contamination of the milk?

   The pigs do not appear to be affected – Who can determine the withdrawal times for safe slaughter of the pigs for human consumption?

Scenarios

4. Many farms are in low-lying areas close to rivers. Flooding is a problem that can result in animals drowning, and difficulty in supplying feed to stranded animals.

   Emergency Managers: How many farms in your community are potentially affected by floods and what types and numbers of animals do they have? How would you obtain this information?

   Animal owners: How could the problem of recurrent flooding be prevented? What department in your State could help you in this regard?

Scenarios

5. During a heat wave there is a local power failure that results in the death of 500,000 chickens in two adjacent barns.

   Emergency Managers: What emergency power supplies could have been mobilized and prevented this costly loss?

   Animal owners: How would you dispose of this large mass of dead birds?

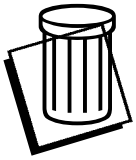
Scenarios

6. A brush fire precipitates the escape of a large private collection of exotic animals. The animals include lions, tigers and bears. There is great risk of people being injured. The animals are very valuable and belong to an influential local resident.

   Emergency Managers: Should the escaped animals be killed or captured? Discuss.

   List factors that would help you reach the most appropriate decision.

   Animal owners: Whom would you call in your jurisdiction to help you with this situation?



LEARNING CHECK – WHAT HAVE YOU LEARNED ABOUT ANIMALS IN DISASTERS?

This activity is designed to assess your understanding of the information presented in this unit.
Directions: Answer the questions – use the Answer Key in Unit 10 to check your answers.

True or False

1. The best disaster preparedness starts with personal protection and safety.

2. Private individuals and corporations coordinate the most effective protection against disasters, without the help of Federal and State departments.

3. The U.S. animal agriculture industry generates nearly $90 billion each year.

4. Traditional concerns involving animals in disasters include the spoilage of the human food and water supply.

5. There is no evidence to indicate that the human-animal bond affects public mental health in times of disaster.

6. Care for animals during disasters has no effect on the safety and care of humans.

7. The care of animals in disasters should take precedence over the care of people.

8. In disasters consideration has to be given to avoid unnecessary exposure of persons with allergies or phobias against animals.

Multiple Choice

9. The importance of animal ownership in the United States is evidenced by:
   a. A decreased appreciation of pets as human companions
   b. Increased revenue of the pet industry
   c. An increase in the portion of the population employed in agriculture
   d. Less than half of all Americans now own pets

10. According to survey results, what percent of pet owners consider their pets to be very or extremely important to their families?
    a. 10 percent
    b. 30 percent
    c. 60 percent
    d. 100 percent

Summary

In this unit, you examined the relationship between humans and animals and how this relationship may potentially affect emergency management. This unit described the animal-care community, examined the societal impacts of animal ownership, and introduced the concept of the human-animal bond as a major factor affecting animal owners and care providers in a disaster.

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Animals in Disasters

MODULE B
UNIT 3

Disaster Preparedness Through Planning and Collaboration

Overview

This unit covers the emergency management process with an emphasis on the care of animals and their owners. It suggests methods for creating a successful emergency operations plan and discusses methods to involve various levels of government in the planning process.

Objectives

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

- Develop an emergency operations plan based on the criteria of an effective plan
- Involve Federal, State and local resources in the planning process
- Establish effective communications within your community
- Test your plan

Local preparedness is best

Most disasters occur and are addressed at the local level. Resources and expertise found locally can identify common hazards and prioritize mitigation and planning to reduce the impact of hazards. 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 occurs is vitally important.

Why a plan?

A plan of action that is implemented when a disaster occurs forms the basis for emergency preparedness. This plan of action contains information on community hazards and details prompt and effective measures to take when an emergency occurs. You must be prepared to use the resources that are available to you. To ensure your action plan addresses unforeseen issues, exercises are essential.

Emergency management and the law

Federal law

The Federal Civil Defense Act of 1950, Public Law 920, 81st Congress as amended, is the legal basis for national civil defense and emergency management in the United States. This act establishes that responsibility for national civil defense and emergency management is shared among local, State and Federal governments.

State law

Each State must have laws that are consistent with the Federal law if they wish to qualify for Federal aid and assistance. The law defines the specific responsibilities of the local and State governments, and gives the State the authority to pass local emergency management laws or ordinances.

Some State laws are permissive and leave decisions to local jurisdictions; others may be very specific and require certain action by local government. Such laws are called *directives* and use terminology that is mandatory.

Local laws

The local law or ordinance gives the local emergency management agency the legal authority to operate. It should clearly define the authority, duties, and specific responsibilities of the personnel and identify who in the daily operations of the local government has the final authority for emergency management operations. This person has the responsibility for the planning decisions that affect future emergencies as well as the final authority in actual emergency situations. Often this is the mayor.

Preparedness plan and the law

On the Federal and State levels laws may be broad to cover a variety of situations within very diverse political environments. Local laws or ordinances can be more specific, defining exact duties, actions, or requirements. Local law should provide for the establishment of an emergency operations or preparedness plan. The plan should describe in detail who has the authority to do what in disasters. The plan itself is not a law but is a detailed description of the actions that are authorized under the law.

Supplemental laws and agreements that can facilitate emergency management planning

A mutual aid agreement is a legal agreement among two or more local jurisdictions that plan to assist each other in cases of emergency. They are signed by the heads of the governments or organizations involved. Mutual aid agreements may include such things as:

- Access across boundaries,
- Provision of resources and services,
- The extent to which the resources and services will be provided,
- Public safety actions,
- Who will declare that a state of emergency exists,
- Who will be in charge of the resources received, and
- Who will provide compensation and death benefits for those injured or killed while rendering aid.

Even if you feel you have all the resources you need to respond, situations may arise making it necessary to rely on neighboring areas. Examples of plans and mutual aid agreements at various levels are given in the appendices.

Review all your animal-related laws to determine who is responsible for what actions. If there is a duplication or overlap of duties, a written memorandum of understanding between agencies should be developed to designate who has what specific responsibilities in a disaster. Conflicts or disagreements should be resolved in writing. If responsibilities are omitted, they can be included in the memorandum until appropriate legislation is enacted. By doing this in advance, confusion over responsibilities, liabilities and financial commitments can be avoided.

Agencies and services that may be involved with animal issues during Federally declared disasters

During a Federally declared disaster, animal-care providers are most likely to involve representatives from:

- Department of Defense,
- Urban Search and Rescue (US&R),
- U.S. Department of Agriculture,
- Department of Health and Human Services, which includes the Veterinary Medical Assistance Teams, and
- National humane groups that function as non-governmental organizations.

The Emergency Support Functions (ESF) of each of the Federal groups is described in the Federal Response Plan (FRP).

Department of Defense (DOD)	Includes the DOD Veterinary Services. The U.S. Army Veterinary Corps is activated in Federally declared disasters upon request from the affected State's Governor via the President. In the past, the U.S. Army has been the most important Federal agency that deals directly with veterinary issues in disasters because of their excellent communications capabilities and access to extensive resources.
Department of Health and Human Services (HHS)	Veterinarians within HHS function as part of the National Disaster Medical Services. The Veterinary Medical Assistance Teams (VMATs) are composed of veterinarians and other persons who have pre-enrolled with the American Veterinary Medical Association (AVMA) and Federal government. They help re-establish the veterinary practices of affected veterinarians. These VMATs are activated via State and Federal emergency management officials. Their field activities are coordinated through the coordinator of emergency preparedness at the AVMA headquarters in Schaumburg, Illinois. The AVMA is the designated lead agency to coordinate response activities related to animals in disasters.

U.S. Department of Agriculture (USDA)	Regulate Federal and State health programs for animals and through Cooperative Extension Services have nationwide, county-based expertise to consult on most phases of emergency management. See list to follow. Resources and expertise that county extension educators can provide in disasters: ◣ Disaster prevention, ◣ Pesticide safety and handling, ◣ Fire safety training, ◣ Disaster response, ◣ Counseling on: – Small businesses – Consumer economics – Livestock feed safety – Water quality – Livestock husbandry – Family and personal stress – Financial planning – Waste management – Building construction safety ◣ Disaster mitigation, ◣ Disaster preparedness, and ◣ Capabilities to gather, evaluate and disseminate knowledge and expertise through its email network and within universities.
Non-governmental organizations	Provide care for animals in disasters and have traditionally been national humane organizations, such as American Humane Association, Humane Society of the United States, United Animal Nations, American Kennel Club and the Cat Fancier's Association. Currently these groups do not have an official role in Federal response plan. These volunteer agencies are a potential financial and human support resource to the local communities.

State level

Individual veterinarians are licensed to practice in a State through the State licensing board. In some States, there are umbrella organizations for humane and animal control shelters and personnel. They cooperate in the care of animals when there are declared disasters.

Local level

At the local level, animal control, veterinarians and humane shelters commonly deal with the care of animals. They have daily experience with the capture and rescue of lost or abandoned animals, temporary housing, and fostering and adoption programs. In many communities the animal control department has the legal authority to deal with stray animals. However, in other communities the authority or power for animal care is not clearly defined and animal-care groups vary in their organization and capabilities.

Local veterinarians generally operate private practices. They have a permanent, vested interest in the economic health and emotional well-being of pet owners in the community. By law veterinarians are the only group that can legally diagnose and treat conditions in animals. Veterinary practices are often equipped similarly to human hospitals and usually have:

- Surgical and X-ray facilities,
- Examination rooms,
- Diagnostic equipment, and
- A supply of commonly used medications.

Emergency operations planning

First steps

Like response to a disaster, developing a plan is a team effort. Start by forming a committee. The committee should be co-chaired by emergency management personnel and a representative from the animal-care community. Veterinarians, county extension educators, and directors of humane shelters or animal control are examples of suitable animal-care industry representatives.

Committee members should ideally possess the following credentials:

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

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

Components of 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. It details the tasks for specified organizations and individuals at projected places and times based on established objectives, assumptions, and a realistic assessment of capabilities.

A local EOP is essential. 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 and allows you to effectively integrate with the State and Federal response.

FEMA provides guidance to local emergency operations planners for developing EOPs under its Integrated Emergency Management System (IEMS). This guide, CPG 1-8, describes the recommended form, content, and development process of an EOP. It sets forth FEMA's policy concerning plans produced with Federal assistance. 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.

The EOP described in this unit emphasizes 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 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 following provides examples for each of these concepts:

- An EOP should be developed with animal control agencies, veterinary services, humane shelters and other permanent businesses, associations and professionals in the community who deal with issues that affect animals and their owners daily.
- 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.

The planning process is just as important as the final plan itself. During the planning process, people and organizations learn to work as a team. An emergency plan built on these principles will result in a model of community preparedness built on the basic emergency functions shown in the following table.

Basic Emergency Functions — Annexes to accompany your basic plan	
◣ Direction and Control ◣ Warning ◣ Communications ◣ Public Information ◣ Evacuation ◣ Shelter ◣ Mass Care ◣ Health and Medical Services ◣ Law Enforcement ◣ Fire	◣ Search and Rescue ◣ Radiological Defense ◣ Engineering Services ◣ Agricultural Services ◣ Damage Assessment and Analysis ◣ Transportation ◣ Resources Management ◣ Care of Animals ◣ Recovery

Getting started with preliminary plans

The following sections contain information on how to develop plans. The process applies to emergency management officials and animal owners. Some community EOPs may not address animal-related issues in disasters. It is essential that someone take initiative in the planning process.

To begin planning, 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. If you have a plan, use the ideas below to evaluate and improve your current plan.

The purpose of a plan is to provide a systematic way of responding to an emergency situation. Begin by defining:

- Who has command and authority?
- The availability and use of the Emergency Operation Center (EOC).
- Types of communication and under what circumstance they will be operational.
- Potential hazards specific to your area.
- The emergency organizations and functions.
- Standard operating procedures (SOPs) for response.

The Emergency Operations Plan

The EOP is the formal goal of planning. It should cover all aspects of emergency management and all types of emergencies. It should strive to achieve several characteristics: flexibility, multi-use, detail, consistency, and comprehensiveness. Remember, the plan should:

- Feature dual use of resources.
- Consist of sections for individual operational responders, thus allowing sufficient detail to carry out responsibilities.
- Consist of components that follow the same format, thus providing consistency between parts of the plan and among plans from neighboring communities.
- Involve all levels of government and the private sector.

Components of a plan

There are three basic components to the EOP. Your plan 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.

Establishing effective communications

Establishing contact with the private sector will help to secure access to communications and the incident site, and other resources should they be needed in a disaster. Private companies may also supply trained operators for resources and designate the amount of compensation required.

When you have identified private-sector groups to work within an emergency, designate one individual that will serve as your primary contact. A written commitment from each organization should be signed by your primary contact – the individual who owns or is responsible for the resource. You should also have alternative contacts, to be specified in the agreement.

This written commitment is called a *memorandum of understanding* (MOU) and should be kept on file in the office of the emergency manager. The following table lists some resources that may be available to help you deal with animal care through memorandums of understanding.

Local resources — possible headings under which you could catalog your local resources to deal with animal issues	
◣ Animal care and control ◣ Veterinarians ◣ Humane organizations ◣ Wildlife rehabilitators ◣ County Extension Educators ◣ American Red Cross ◣ Salvation Army ◣ Agriculture departments ◣ Health departments ◣ Department of Natural Resources (DNR)/Fish and Game ◣ Animal control advisory groups ◣ Wildlife agencies ◣ Neighborhood emergency groups ◣ Livestock producer organizations ◣ Specialty (oil spills) ◣ Breeders ◣ Race tracks ◣ Aquariums ◣ Game wardens	◣ 4H groups ◣ Future Farmers of America (FFA)/youth groups ◣ Renderers ◣ U.S. Pony Clubs ◣ Search & rescue teams ◣ Horse assistance and evacuation teams ◣ Research facilities ◣ Pet suppliers ◣ Professional animal trainers ◣ Helping dogs/training facilities ◣ Schools/educational institutions ◣ Theme parks ◣ Owners ◣ Zoo personnel ◣ Hotel/motel associations ◣ National Guard ◣ Environmental groups ◣ Army Veterinary Corps ◣ Livestock haulers

Completing the plan

Completing the plan requires in a series of steps. The basic plan is usually written first. Identify the annexes necessary to provide the plan details. As annexes are written, necessary appendices will be discovered and developed. The care of animals should be integrated into the EOP as an annex and the appropriate animal-care providers should develop standard operating procedures (SOPs).

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,
- Community resource inventory,
- Organizational structure,
- Simple language, and
- Coordinated.

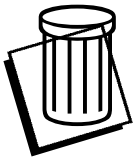
Avoid duplication and conflicts in tasks. Coordinate department plans within a jurisdiction with the overall emergency management plan through annexes.

Testing the plan

The most effective way to test the plan and the capabilities of your emergency management program is to exercise your personnel and procedures. There are four different types of emergency management exercises.

Orientations	Used as a building block to more difficult exercises. Information on this and 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).
Table-top Exercises	Attempt to approximate reality. The focus in these exercises is on training and familiarization with roles, procedures, responsibilities, and personalities in the jurisdiction's emergency management system.
Functional Exercises	Usually take place inside, such as in a classroom or actual emergency operating center. They may include various forms of message traffic (written, telephone, radio), and attempt to recreate a realistic environment while you respond.

Full-scale Exercises (Simulations)	Combine 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.



LEARNING CHECK – WHAT HAVE YOU LEARNED ABOUT PLANNING AND COLLABORATION?

This activity is designed to assess your understanding of the information presented in this unit.
Directions: Answer the questions – use the Answer Key in Unit 9 to check your answers.

True or False

1. Federal resources and expertise are the most qualified to identify common hazards in your community.

2. Veterinarians are the only group who can legally diagnose and treat conditions in animals.

3. Members of the planning committee should possess experience or knowledge of disasters.

4. Response to a crisis should always rely on the highest level of government.

5. Plans provide a systematic way of responding to an emergency situation.

6. Emergency managers are the most qualified to develop standard operating procedures for the care of animals in disasters.

7. Appendices to an EOP contain details, methods, and technical information that are unique to the specific hazards likely to pose a threat to the community.

8. Local resources that can help in plan development include veterinarians, humane organizations, and pet suppliers.

Multiple Choice

9. The best way to test the emergency operations plan includes which one of the following?
   a. Exercise the plan using a variety of techniques
   b. Conduct planning sessions with private sector and volunteer organizations
   c. Compare the plan with plans from other jurisdictions
   d. Wait until a disaster to see if the plan is carried out effectively

10. Combining a functional exercise with a drill is a method for which type of emergency management exercise?
    a. Orientation
    b. Table-top exercise
    c. Functional exercise
    d. Full-scale exercise

Summary

This unit identified the legal responsibilities of local, State, and Federal governments in terms of emergency planning. It also reviewed the role of Federal agencies in a disaster and identified ways that local, State, and Federal resources can be integrated into disaster response and recovery operations. Most importantly, this unit identified the components of an EOP and gave valuable information for developing and testing your EOP.

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Animals in Disasters

MODULE B
UNIT 4

Analyzing Risks Affecting Animals and Their Owners

Overview

In the following units you will begin to develop your community disaster plan for the care of animals and their owners. You will identify emergencies that are most likely to occur in your community and learn what actions should be taken before, during, and after these crises. For all hazards (natural, technological, or national security emergencies) you should follow five steps:

1. Work in teams that are made up of representatives from emergency management and the animal-care community.
2. Acquire information on local community hazards.
3. Follow the preparedness and mitigation steps identified in your community disaster plan.
4. Develop the animal-care annex to your community disaster plan.
5. Exercise (practice) your community disaster plan and update it periodically.

We will follow an example of determining local risk due to disasters at the end of this unit. Although you should analyze risks specific to your community, you should also know some general information about all major hazards. While you do not need a specific emergency plan for every possible emergency, you should be familiar with common emergencies and know what actions to take to protect yourself at home or elsewhere.

Objectives

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

- Analyze your community's risks and vulnerabilities to certain hazards
- Mitigate hazards likely to affect your community, especially in terms of animal safety
- Address animal-related issues during a local disaster, including animal transportation and animal identification
- Understand the role of an Incident Command Center during a hazardous materials incident, including the role of your locality, State and the Federal government

Determining local hazards

There are many factors to consider when determining dangers to your 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, and
- Distance from transportation routes, large urban areas, large industrial areas, or military installations.

Past History	Does your community have a past history of certain types of emergencies? If your community has had floods, forest fires, or industrial accidents previously, these emergencies could happen again. You can learn about the history of emergencies from local newspaper records, emergency management offices, or your American Red Cross chapter. However, there is no guarantee that only those emergencies experienced in the past will happen in the future.
Geographical Characteristics	If you live near an ocean, river, fault line or mountains, related natural hazards could affect you. Learn the geography in your area and the associated hazards.

Community Characteristics	Your community has many important characteristics. A large city with important industries or military installations may be at risk from technological hazards. Cities may also be at risk for terrorist attack, as evidenced by the Oklahoma City and World Trade Center bombings. A small rural community may have high risks from natural hazards. Your emergency manager or city planner can provide information about your community relevant to its hazard vulnerability.
Distance from Transportation Routes, Cities, Industries, or Military Bases	Although your community may appear to have few risks, you may be close to high-risk areas. For example, airplanes may fly over your area. Hazardous materials transported by train, truck, or pipeline, and their routes may run through or near your community. Your local emergency management office can give you information to help you analyze your risk from those hazards.

Vulnerability analysis

To prepare yourself to deal with various types of hazards, you must learn what the potential dangers are 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.* Your local emergency manager regularly conducts vulnerability analyses for your community. Ask your emergency manager for the results of these analyses.

Knowing the size and composition of the animal-care industries at risk is critical to understanding the risks associated with disasters. Review the table in the introduction to this course to determine:

- Which facets of the animal-care community are present in your community,
- What role they play,
- How many people are involved in these industries, and
- What economic value they have.

The number of pets that reside in a community can be estimated from the tables in Unit 2 of this module. Statistics regarding livestock and poultry facilities can be obtained from the U.S. Department of Agriculture. Other sources of information on animal-care providers and suppliers can be obtained from local contacts and the telephone directory.

Analyzing the risks

What are the major natural hazards? Natural hazards are those caused by natural events that pose threats to lives, property, and other assets society values. We will discuss natural hazards separately from the others because these often can be predicted and you can mitigate many of the damaging effects. Natural hazards tend to occur repeatedly in the same geographical locations either because they are related to weather patterns or because they are related to the geological characteristics of an area.

In this course, you will analyze the risk to your community from the following natural hazards:

- Severe thunderstorm
- Flood and flash flood
- Landslide and mudflow
- Tornado
- Hurricane
- Winter storm
- Drought and extreme heat
- Wildfire
- Earthquake
- Tsunami
- Volcanic eruption

If you are unfamiliar with any of these hazards and their associated risks, review Module A of this course.

Mitigation of hazards

We will examine your risk from natural hazards in the next section and look at ways to identify and mitigate the hazards in your community. We will also look at one specific type of hazard, hazardous materials.

There are many different mitigation strategies, some of which require money, but most of which use awareness, foresight, and creative efforts. Several of these mitigation strategies are explained to follow. Think of ways to apply mitigation to your community.

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. The inspection of new buildings to make sure construction conforms to local building codes 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 that is manufactured. Some of these are listed to follow.

- Restrict the use of hazardous chemicals to specific areas within a community.
- Surround the hazard by some type of containment structure.
- Ban vehicles carrying explosives from densely populated areas.
- Limit the amount of hazardous chemicals a manufacturing plant has on site at any one time.
- Impound nuclear wastes to prevent release.

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 autos) safer.

Information dissemination

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.

Specific hazards concerning animals

Vulnerability of animals in agriculture

Nearly 90 percent of the food produced in the United States is grown and harvested by 5 percent of the population. This concentration of agriculture makes the nation's food supply vulnerable to disasters. Although new and emerging diseases represent the single largest threat to agriculture, natural disasters can also have a significant impact on farming communities. For example, during floods where farmers were not prepared to evacuate their livestock, many cattle drowned. As a result, some farmers left their profession out of fear of another disaster or out of guilt. In general farmers are reluctant to apply for grants for which they are eligible, such as family and business support. Protecting U.S. agriculture through disaster preparedness, therefore, has great potential to protect the U.S. food supply and maintain a traditional way of life.

Flooding

Considerable farming activity occurs in floodplains. Despite this, many farm owners and managers do not know if they are in a floodplain. This may lead to a false sense of security. There are many common consequences that result from flooding on farms, some of which are listed to follow.

- Animals can drown,
- Animals can be stranded without feed,
- Manure and waste handling facilities can overflow and spill manure into the environment and water supply, and
- Animal carcasses can pose a secondary threat.

Often the location of a farm cannot be changed, but measures to reduce the potential impact of flooding can be introduced.

- County area planning offices compile information on floodplains for most properties in their community.
- The natural resources department can provide maps and flood-risk assessment information on every property in their State. Farm owners and managers should obtain this information and review the location of their property, and access to their property, since flooding of either of these could leave them stranded.
- Civil engineers can help in the design and construction of flood-protected farm accesses and make recommendations on suitable locations for stables, paddocks and high-lying areas that may be used as pasture in the event of a flood.
- If homes are threatened, the companion animals residing within them are also at risk and must be considered in evacuation plans.

Manure pit spillage is overseen by the State department of environmental management. The natural resources department would address a contaminated water supply that may affect wildlife.

Fire safety

Barn and house fires occur too often and many animals are lost to them. Fires commonly break out in horse barns in the winter months when the doors are closed and the demand for energy is great. Many barns and stables are built of flammable materials. Some have gas heaters in them.

Farm owners and managers should consult with their local fire department on how to fireproof their stables. Local collaboration between farms and the fire department is highly recommended because it familiarizes farm owners and local firefighters. This familiarity is helpful in the event of an emergency. Simple factors, like knowing ahead of time where a farm is located, how many animals are there, and where to find large volumes of water can make the difference between rapid, successful response and total failure. Professional firefighters can also advise on brush control and the types of fire-resistant vegetation that can be planted. Veterinarians can further advise on the safety of these plants for animals.

Power supply

Many livestock operations and exotic animal collections depend on electric or gas power in the following ways.

- Dairy cows need to be milked.
- Poultry and swine must be cooled in the summer and heated in the winter.
- Many feed bunkers and silos have electric switches.
- Often well water can only be delivered with an electric pump.
- Exotic animals, birds and fish depend on electricity for heat and oxygen.

These needs represent high priorities in mitigation and response to disasters. These special needs should be addressed in every community. Information on how power is supplied can be obtained from the local electric company. If you depend on electric power for the safety of your animals, you should look into obtaining a secondary generator or another back-up system.

Wildlife

General concerns with wildlife arise from their displacement in disasters. For example, migrations of animals onto cropland can result in considerable damage. When displaced wildlife is forced to cross highways and to roam in built-up communities, there can be an increased incidence of vehicular accidents.

Types of wildlife are categorized according to State laws. Wildlife are grouped into native and non-native species.

Native Wildlife	Includes deer, raccoons, squirrels, bears, cougars, lynx, and bobcats. Most native wildlife belong to the citizens of the state and are only privately owned if they are bred and raised in captivity. Free-roaming native wildlife are managed by the natural resources department. Wildlife officials, licensed rehabilitators and veterinarians are generally the only authorized persons to treat these animals.
Non-native Wildlife	Includes big cats, zebras, ostriches, etc. Non-native wildlife are often referred to as exotics. Some States have licensing requirements for exotic animals, but this is not required nationwide. Many wildlife species are valuable and dangerous. If they were to escape, they could present a significant risk to the rescue workers, general public, and environment.

Safety in transport

Vehicular accidents are among the most common disasters that horse and livestock owners will encounter. Simple preventive measures include regular inspection of trailers and tow vehicles for safe operation. Excellent materials on transportation safety for horses are available from the following groups. Although these materials are designed for horse owners and emergency management personnel, much of the material applies to the transportation of all large animals.

Hawkins Guide on "Equine Emergencies" and "Horse Trailering on the Road."	Blue Green Publishing Company PO Box 1255 Southern Pines, NC 28388
A videotape on "Equine Trailer Rescue."	Horse Park of New Jersey PO Box 548 Allentown, NJ 08501

Companion animals are best transported in appropriate carriers. Unless properly secured, animals should not be transported in open pick-up trucks.

Escaping animals

In disasters the potential for animals to escape is high. This can lead to separation of owners and animals and other concerns including:

- Escaped animals may threaten livestock and the public.
- Escaped animals represent an increased risk to motorists who would normally not expect animals on the highways.
- Following heavy rain, floods, or snowfall pets may become disoriented, because their usual scent marks have been washed away or have become obscured. After these incidents an increased number of pets are often lost and found.
- From a public health perspective, the escape of food-producing animals can potentially expose them to toxic substances that may be poisonous to humans. This will be addressed in the section on hazardous materials.

Stray animals are those with owners that cannot be identified. The legal authority to deal with stray animals usually resides with the community animal control department. Animal control personnel are often law enforcement officers who will have many other responsibilities in a disaster. Therefore, although the animal control department may have the legal authority to deal with stray animals, the care of these animals may be a low priority. Alternative plans, such as working with a volunteer group, may need to be developed to address this issue.

Animal identification

Many animals look alike to persons other than their owners; however, only a few animals have permanent and positive identification.

Methods for permanent and unique identification include:

- Cattle can have microchips, tattoos, ear tagging and branding.
- Horses can be identified by microchips, tattoo, freeze branding, or by their whorls (photos front and side are needed) but this is rarely used in the United States.
- Companion animals should be tattooed or have microchips in addition to a standard collar with visible identification tag.

In disasters, animals and their owners can become separated, and animal abandonment has sometimes been a considerable problem.

Therefore, permanent identification should be seen as mitigation.

If animals have not been permanently identified when a disaster is pending, owners should seek reliable alternative methods to identify their animals. Examples of temporary identification methods include:

- Photographs,
- Painting fur or hooves with crayon,
- Fitting collars and identification tags,
- Using hair clippers to shave in initials or phone numbers, and
- Halters and neck bands.

Hazardous materials

Hazardous materials are common in households and in most sectors of the animal industries. Most farmers know the appropriate methods for dealing with commonly used hazardous materials, such as herbicides, pesticides, and fertilizers. For many people a broader understanding of what hazardous materials are and how to deal with them is important.

In many disasters hazardous materials spill and contaminate the environment and animals. Exposures such as these may introduce contaminants into the human food supply. In addition, pets that are rescued may have been exposed to hazardous chemicals – thus potentially affecting the animal and those who handle it without protective clothing. To find out more about potential and known exposure to toxins in animals contact:

- National Animal Poison Control Center in Urbana, Illinois,
- Any college or school of veterinary medicine,
- State animal disease diagnostic centers,
- Some human poison control centers, or
- U.S. Department of Agriculture or State veterinarian (for livestock only).

In livestock and other animals that graze or live outside, the contamination of their feed supply may potentially introduce hazardous materials into the human food supply. Even if an animal has ingested low levels and does not appear affected, its meat and milk may concentrate toxins and present considerable risk for humans through ingestion. Animals can be similarly contaminated through dermal exposure and absorption. Representatives from the U.S. Department of Agriculture, Food Safety and Inspection Service, are

trained and qualified to make recommendations concerning the safety and suitability of food for human consumption. Other sources of information are State chemists and the National Animal Poison Control Center.

Methods for dealing with hazardous materials should be specified in the appropriate sections of your community disaster preparedness plan. Only a brief overview of the various roles that agencies have at different levels will be given here.

The local role in incident response to a hazardous materials incident

As first responders at the scene of hazardous materials transportation spill, local emergency management officials, firefighters or police typically have the lead responsibility for establishing an Incident Command Center.

Establishing an Incident Command Center

Responsibilities of an Incident Command Center include the following.

- Identify the materials involved;
- Determine the risk or hazard posed by the spill;
- Monitor and contain the spill;
- Call for additional resources, such as the State department of environmental management;
- Isolate the scene, restrict or reroute traffic, and conduct evacuation if necessary;
- Provide first aid as needed;
- Fight any fires and protect against explosions;
- Keep the public informed of the hazards that exist, the actions taken, precautionary measures, and evacuation routes and destinations (if necessary); and
- Take overall scene management responsibilities.

The first local forces on the scene usually do not have the specialized clothing needed to rescue personnel in a chemical emergency without becoming victims themselves. Once a chemical emergency has been identified, specially equipped responders may arrive who are better able to take action. A fully encapsulated suit is often required in incidents involving toxic substances.

Your local emergency management agency will usually take on the following responsibilities.

- Notify appropriate State and Federal agencies;
- Send and receive messages;
- Record and disseminate information;
- Assume the public information role from the firefighters and/or police;
- Coordinate requests for outside assistance; and
- Activate a mobile command post, along with a driver, if required at the scene.

Agency/Center	Responsibility
Local public health department	Safeguards the public when food or water supplies may be affected or when dwellings may become contaminated.
Chemist and toxicologist from the local public health department	May provide advice on toxicity and personnel protection, as well as recommendations to the incident commander regarding actions to reduce public health hazards.
Public works department	May assist in containment and cleanup if they have adequate protective clothing and equipment.

State role

In a major incident, a local government may have to call on State agencies for assistance including specialized resources and knowledge. This may involve a number of State agencies; their potential roles are described to follow.

Agency/Center	Responsibility
State Emergency Management Agency	Arranges State and regional mutual aid support and provides liaison with State agencies.
State Department of Transportation	Assists and/or provides for identification and containment of all materials on State highways and freeways or unincorporated county roadways.
State Police or Highway Patrol	Provides general control of the perimeter of the incident (regulating traffic, for example) and will play other roles depending on State law and incident requirements.

Agency/Center	Responsibility
State Department of Natural Resources, Fish and Game and Regional Water Quality Control Boards	Provide recommendations and guidelines when hazardous materials spills are likely to contaminate streams and/or waterways, or would otherwise affect wildlife resources.
State OSHA Personnel	Possess technical knowledge useful to an incident commander in the areas of exposure to, protection from, and control of hazardous materials. In an incident in which employees have been injured due to exposure, or in a prolonged incident, State OSHA personnel may respond.
State Department of Health	Employs health scientists who can help assess the potential human impact of a toxic release.
State Department of Environmental Protection	Can predict the environmental impact of actions recommended by the incident commander at the site of disaster.
State and Local Fire Marshal	Have specific expertise relating to the behavior of chemicals in the environment and State fire codes.

Federal role

In the event of a major incident, the Federal government can provide assistance to the local incident commander through the National Response Center (NRC). This center, staffed by the U.S. Coast Guard, operates a 24-hour hotline to receive and relay notices of major hazardous materials discharges to the appropriate authorities. When needed, the NRC can also make the expertise and other resources of Federal agencies available to the local government. The following is a summary of the responsibilities of the key Federal agencies in response to a hazardous materials incident.

Agency/Center	Responsibility
Federal Emergency Management Agency (FEMA)	Responsible for coordinating all civil emergency planning, management, mitigation, and assistance functions of the Federal government. Under Title III of the Superfund Amendments and Reauthorization Act (SARA Title III), FEMA is the primary Federal agency responsible for planning and related training for hazardous materials emergency management. This encompasses accidents at manufacturing, processing, storage, and disposal facilities, as well as hazardous materials in transit by highways, on water, by rail, and by air. FEMA provides resource information, technical and financial assistance to States for developing emergency plans for hazardous materials accidents and other types of emergencies, and assists State and local governments in hazardous materials training. FEMA also assists States and communities by interpreting Federal planning guidance, providing advice on plan preparation, and reviewing completed plans. FEMA regional staff are available to provide this support. When emergency exercises are conducted, FEMA regional officials provide support by reviewing the plans, observing exercises to test the plans, and providing technical evaluation of how well the plans worked. Finally, FEMA is available to provide financial relief in the event of an incident so serious that local and State funds prove inadequate.
Environmental Protection Agency (EPA)	The primary mission of the EPA is to protect and enhance our environment. EPA is the lead agency responsible for carrying out Title III reporting requirements, hazardous waste site operations, and Superfund site cleanup activities. EPA also conducts technical and environmental training programs related to hazardous materials, and chairs the 14-agency National Response Team (NRT). At the request of community officials, EPA can provide technical expertise on the full range of environmental contamination issues.
Department of Transportation (DOT)	Establishes the nation's overall transportation policy. It bears the primary responsibility for issuing standards and regulations relating to the transportation of hazardous materials nationwide. (Hazardous materials that are transported only within a State's borders are regulated by State law.) DOT is heavily involved in identifying safer modes of hazardous materials transport and has significant regulatory, research and development, and training functions in this area. DOT trains and inspects carriers and shippers of hazardous materials to ensure that they are in full compliance with regulatory guidelines.

Agency/Center	Responsibility
Department of Energy (DOE)	Provides the framework for a comprehensive and balanced national energy plan through the coordination and administration of the energy functions of the Federal government. Its primary responsibilities in the hazardous materials arena involve radioactive waste generated by the nuclear weapons program or by nuclear reactors that supply energy. DOE provides assistance in the removal and storage of hazardous materials.
Department of Defense (DOD)	Responsible for maintaining personnel, equipment, and other resources for potential use in military conflict. DOD also conducts hazardous materials courses at five military installations, primarily for military personnel responsible for the handling and control of such substances. DOD laboratories and installations can be a source of expertise, equipment, and supplies for use in local chemical emergencies.
Department of Labor	The purpose of the Department of Labor is to foster, promote, and develop the welfare of the wage earners of the United States, to improve their working conditions, and to advance their opportunities for profitable employment in carrying out this mission.
Occupational Safety and Health Administration (OSHA)	Under the Department of Labor, OSHA is responsible for establishing rules and standards to ensure that occupational environments are safe for workers. As part of this function, OSHA regulates employee safety and health at hazardous waste operations, in work environments where hazardous materials are present (primarily chemical industries), or during emergency response to incidents involving hazardous materials.

Other sources of information and assistance	Other types of specialized assistance are available from governments, local industries, and from national organizations representing chemical manufacturers and transporters.

Agency/Center	Responsibility
Hazardous Materials Response Teams (HMRT)	An HMRT is a specialized emergency response team formed to provide the particular skills, knowledge, and technical equipment needed to handle hazardous materials incidents. The chemical industry was the first provider of these services because it manufactured, transported, and used the products involved.

Agency/Center	Responsibility
Regional Response Teams (RRT)	May be assembled to provide advice and support for transportation or fixed facility incidents that surpass the capability of State and local governments. The RRT reports to an on-scene coordinator who directs the response in keeping with the local incident commander. RRTs are composed of representatives from Federal agencies and a representative from each State within a Federal region.
Chemical Transportation Emergency Center (CHEMTREC)	Established by the Chemical Manufacturers Association in 1971 to provide information for responders to chemical or hazardous materials emergencies. CHEMTREC's operators can assist incident responders by providing information such as the physical properties of the chemical involved, appropriate protective clothing to be worn by response personnel, and general tactics to use with the various hazardous materials (e.g., certain hazardous materials-induced fires need to be extinguished with water, while others should be smothered or covered with a special type of foam). CHEMTREC will not, however, tell the incident commander how to manage the incident.
Chlorine Institute	Provide specific technical assistance for chlorine emergencies. CHLOREP, the Chlorine Emergency Plan, provides telephone instructions to on-scene personnel in the United States and Canada and, if necessary, can notify the nearest producer of chlorine and request that a trained team be dispatched.
National Agricultural Chemicals Association (NACA)	NACA has identified a group of specialists designated as the Pesticides Safety Team. The team provides advice for incidents involving pesticides and will dispatch a response team to the site if one is needed.

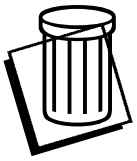
Other groups that are available for assistance include local industries that use or generate hazardous materials. The following types of companies are likely to have the knowledge, equipment, or personnel to provide local-level assistance:

- Chemical companies often have the equipment and personnel to respond to chemical spills.
- Oil refining and storage facilities may be able to assist at a spill of oil or gasoline.
- Construction companies can provide heavy equipment and operators when needed.
- Transportation companies can provide detailed information on the materials they carry, assist in evacuation, and may have

trained personnel and specialized equipment.

- Pollution cleanup contractors have special equipment and trained personnel.
- Although a fee will be charged for the services provided, professional cleanup contractors are often the best (and quickest) source of advice and physical assistance at a spill.

Your local emergency operations plan should maintain a current list of contacts and telephone numbers for all potential sources of assistance. Compiling this information during an emergency can waste valuable time when the need for action is urgent.



LEARNING CHECK – WHAT HAVE YOU LEARNED ABOUT ANALYZING THE RISKS OF HAZARDS?

This activity is designed to assess your understanding of the information presented in this unit.
Directions: Answer the questions – use the Answer Key in Unit 9 to check your answers.

True or False

1. Developing an animal care annex is one of five steps in developing a community disaster plan.

2. A measure to reduce the impact of flooding includes constructing flood-protected farm access.

3. Hazardous materials cannot enter the human food supply through contaminated animals.

4. In a hazardous materials emergency, the State health department is likely to provide health scientists to assess the impact of the toxic release on the human population.

5. Chemical companies often have the equipment necessary to respond to chemical spills.

6. Native wildlife includes animals such as zebras, camels and ostriches.

7. Responsibilities of an Incident Command Center include monitoring and containing the spill.

Multiple Choice

8. Adding a distinctive smell to odorless liquid propane gas is which type of mitigation activity?
   a. Reducing or limiting the amount of hazard manufactured
   b. Modifying the basic qualities of a hazard
   c. Modifying the rate or spatial distribution of the release of the hazard
   d. Disseminating information

9. Determining dangers likely to affect your community based on the size and population of your community considers which one of the following factors?
   a. Past history
   b. Geographic characteristics
   c. Community characteristics
   d. Meteorological characteristics

10. In terms of animals in disasters, which one of the following factors should be considered as part of vulnerability analysis?
    a. Size and composition of animal-care industries
    b. Hazardous materials transported through your community

c. Hazards associated with the geography of your area
d. Strategies to mitigate the effects of natural hazards

EXERCISE: WHAT ARE THE THREATS TO YOUR COMMUNITY?

The following is a list of possible hazards for your community. First, add to the list any others that might occur in your community. Next, examine each hazard using the information obtained from the State geologist, State public health department, nearest U.S. Geological Survey office, National Weather Service Office, or other appropriate source of information. Do the hazards have a high, medium, low or no likelihood of being a threat to your community? Put your answer in the column headed Likelihood. For example, if you live in Hawaii you would put "no" beside snow and ice storm. If you live near a river or on a floodplain, put high, medium, or low based on your conversation with the National Flood Insurance Program (NFIP) coordinator.

Next look at the column labeled Vulnerability. What is the vulnerability of your jurisdiction to this hazard? Given what you know about the vulnerability of your community, does the hazard present the threat of a disaster or just a routine emergency? Put an answer in the column.

In the final column provided, check those hazards that represent "worst threats" to your community. The "worst threats" are those hazards with threats that have high or medium (a) likelihood of happening, or (b) disaster vulnerability. These are the hazards on which you will want to concentrate first.

Compilation of possible hazards in your community

Possible Hazard	Likelihood (high, medium, low, no likelihood)	Vulnerability (threat of disaster or routine emergency)	Worst Threats
Attack (nuclear or conventional)			
Tornado			
Flood			
Hazardous material dumps/storage			
Radiological incident			
Urban fire			
Power shortage/failure			
Winter storm/Ice storm			
Air crash			
Water supply contamination			
Hurricane, tropical storm			
Earthquake			
Volcano			
Drought			
Chemical or biological warfare			
Highway and transport accidents			
Mud flow			
Dam failure			
Wildfire			
Avalanche, landslide			
Tsunami			
Civil disorder			
Subsidence			

Summary

In this unit you learned how to identify hazards likely to affect your community. You also learned some mitigation strategies for certain types of hazards, in terms of the safety and protection of animals. Response and recovery actions in terms of animals were discussed, e.g., how to safely transport animals. Finally, the responsibilities of an Incident Command Center and the roles of local, State, and Federal governments and other resources in a hazardous materials incident were addressed.

Animals in Disasters

MODULE B
UNIT 5

Organizing the Response to a Disaster

Overview

This unit covers issues relating to the response to a disaster. Aspects of emergency management will be described as will some of the unique issues that surround animals in disasters. For mutual support and collaboration in disasters it is very important to understand the Incident Command System (ICS), as this is where communications and coordination in a disaster succeed or fail. Only groups that are organized to be part of the Integrated Emergency Management System (IEMS) will be able to operate within the ICS.

Objectives

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

- Define the Incident Command System (ICS) and list its functions
- Describe how an Emergency Operations Center (EOC) is activated and used
- Identify ways to communicate with the media and the public
- Describe veterinary issues in disasters and ways in which to handle them
- Describe public health issues, in terms of animals in disasters
- Identify environmental issues of concern in terms of animals in disasters

The Incident Command System

The ICS is the foundation for an effective all-risk emergency planning and response capability to any critical incident (defined to follow). Functions may be further expanded to meet the needs of each situation regardless of the magnitude of the disaster. The following describes each of these aspects in greater detail.

Critical Incident	Any natural or man-made event, civil disturbance, or any other occurrence of unusual or severe nature that threatens to cause or causes the loss of life or injury to citizens and/or severe damage to property. Critical incidents require extraordinary measures to protect lives, meet human needs, and achieve recovery.

History and laws relating to ICS

The ICS has been adopted by a variety of emergency service organizations, such as law enforcement, emergency management services, and public works. This unit provides an overview of ICS. The ICS dates to the early 1970s, when a series of major wildfires in Southern California prompted municipal, county, State, and Federal fire authorities to form an organization known as "Fire Fighting Resources of California Organized for Potential Emergencies" (FIRESCOPE).

FIRESCOPE addressed problems that recurred in many fires during that time. These problems included:

- Nonstandard terminology among responding agencies;
- Lack of capability to expand and contract as required to meet the demands of an incident;
- Nonstandard and non-integrated communications;
- Unmanageable span of control;
- Lack of designated incident facilities; and
- Lack of a comprehensive resource management strategy.

Although originally developed for wildfire settings, the system ultimately evolved into an all-hazard system. This made it appropriate for all types of fire and non-fire emergencies. Due to the need for and increased interest in a model emergency incident management system, the National Curriculum Advisory Committee of the Incident Command Systems/Emergency Operations Management Systems recommended adoption of ICS as an all-risk, all-agency system. ICS was then adopted by the National Fire Academy as its model system. In 1987 the ICS received additional endorsement by the International Association of Chiefs of Police.

Now there is a legal basis for adopting ICS, which is due to Federal laws that require its use for specific types of incidents. These include:

- The Superfund Amendments and Reauthorization Act (SARA) of 1986. This act established Federal regulations for handling hazardous materials. SARA directed the Occupational Safety and Health Administration (OSHA) to establish rules for operations at hazardous materials incidents.
- OSHA rule 1910.120, effective March 6, 1990, requires all organizations that handle hazardous materials to use ICS. The regulation states:

  "The Incident Command System shall be established by those employers for the incidents that will be under their control and shall interface with other organizations or agencies who may respond to such an incident."
- The Environmental Protection Agency (EPA) requires States to use ICS at hazardous materials incidents.

How does the ICS function?

Many incidents require a response from a number of different agencies. For example, a livestock trailer accident may require medical services, law enforcement, public works (if utilities are damaged), veterinarians and animal control personnel. All of these groups must work together in a coordinated fashion. To enable this coordination, disaster preparedness plans that provide effective care for animals and their owners should be integrated into the ICS. Through the ICS all of these resources are coordinated efficiently and functionally.

The ICS lends consistency to the way team members and agencies function in an emergency. It eliminates the need to reinvent the wheel for each new emergency. To be truly effective, the ICS uses an integrated approach to ensure its applicability to all incidents.

Based on what was reported in the FIRESCOPE study, there are eight primary components of a good emergency management system:

- Common terminology,
- Modular organization,
- Integrated communications,
- A unified command structure,
- Consolidated action plans,

- Manageable span of control,
- Designated incident facilities, and
- Comprehensive resource management.

The ICS employs basic business management techniques, including:

- Planning,
- Organizing,
- Directing,
- Coordinating,
- Delegating,
- Communicating, and
- Evaluating.

Business managers perform many tasks as part of their routine management functions and are a good resource in developing, maintaining and implementing the ICS.

Economy of resources

For a critical incident to be handled effectively, economy of resources must be considered. Economy of resources requires:

- Establishing goals,
- Setting priorities, and
- Assigning resources.

Common terminology

The need for common terminology in any emergency management system is essential, especially with communications among diverse agencies. In ICS, major organizational functions and units are predesignated, and the system's terminology is standard and consistent. For example, when multiple incidents occur within the same jurisdiction or on the same radio frequency, each incident is named individually. If an incident occurs at 16th and Rivermont, it could be called the "Rivermont Street Command." An incident that occurs at 16th and Bellingham could be called the "Bellingham Street Command." Common names are established and used for all personnel and equipment, and for all facilities in and around the incident area. This helps to prevent confusion.

Organizational structure

The ICS organizational structure develops from the first in unit at any incident. Five functional areas that are implemented as the need develops at an incident site are:

- Command,
- Operations,
- Logistics,
- Planning, and
- Finance and administration.

The number of people fulfilling these functions will grow according to the growth of the incident.

Command

The ICS is built, in part, on the concept of unity of command. Unified command is shared responsibility for overall incident management. Because many incidents involve multijurisdictional or multi-agency resources, the operating procedures need to be defined before the incident. In the event of conflicting priorities or when resources are scarce, there must be a clear line of authority for decision-making.

The command function is always established first in a disaster. Specific ICS organizational structure for any incident is based on the incident's management needs. Frequently, a modular organization system is employed, because it can expand or contract, depending on the magnitude of the incident or operational necessity.

The command function within ICS may be conducted in two general ways:

- A single command may be applied when there is no overlap of jurisdictional boundaries or when a single incident commander (IC) is designated by the agency with overall responsibility for managing the incident.
- A unified command is applied when the incident is within one jurisdiction and more than one agency shares management responsibilities. The concept of unified command means that all involved agencies contribute to the command process by:
  - Determining overall goals and objectives.
  - Jointly planning for tactical activities.

- Conducting integrated tactical operations.
- Maximizing the use of all assigned resources.

Unified command also is used when an incident is multijurisdictional in nature or when more than one individual, designated by his or her jurisdiction or agency, shares overall management responsibility.

The selection of participants to work effectively within a unified command structure depends on the location and type of incident. An individual or group's previous training or experience may be an additional factor. A unified command structure could consist of one key official from each jurisdiction or representatives of several functional departments within a single jurisdiction. Implementing action plans under a unified command is the responsibility of the operations section chief. This person usually represents the agency with the greatest jurisdictional involvement. Under the unified command concept, all agencies involved contribute to the command process.

The command post (CP) is the location from which direction, control, coordination, and resource management are exerted over the incident. There is only *one* CP. Ideally, the CP houses the:

- Incident commander,
- Planning function,
- Communications center, and
- All agency representatives.

In some instances the CP may not be large enough to accommodate all of these individuals. In these cases, separate areas must be designated. When performed effectively, comprehensive resource management should accomplish the following.

- Maximize resource use;
- Consolidate control of large numbers of single resources;
- Reduce the communications load;
- Provide accountability; and
- Eliminate self-assignment. Unsupervised action without authorization has resulted in confusion, and undermines effective management.

Operations

The operations function manages tactical operations. This involves coordinated communications, safety supervision and information.

All communications are conveyed via the incident command post, because a lack of an integrated communications system can rapidly become the biggest problem at a disaster site. Integrated communications involves managing communications at incidents through the use of a common communications plan. For clarity of communication, standard operating procedures (SOPs) should be established using common terminology and clear text for use in the command center. It is important that messages are received and acknowledged properly. Recommendations for the care of animals should only be given by persons familiar with both emergency management operations and animal care. These persons should be identified before a disaster occurs.

To facilitate safe operations within the ICS a safety officer is appointed by the IC. The safety officer ensures that safety procedures and safe practices are observed, and identifies unsafe or hazardous conditions that may exist or develop. The safety officer:

- Has the highest authority;
- Formulates measures to protect the safety of personnel; and
- Takes *immediate* action to stop or prevent unsafe acts.

Persons familiar with common behaviors of animals and associated dangers should advise the safety expert on handling animal safety issues. Expert advice will be needed to prevent livestock contamination.

The ICS also coordinates and releases all official information. To ensure that government officials, the media and other persons that contact the ICS get correct, up-to-date and appropriate information, a public information officer (PIO) is designated within the ICS. The incident commander often appoints a PIO and often a liaison officer, because one person cannot manage both the incident and the media.

- The PIO works with the media and provides them with accurate and consistent information.
- The liaison officer acts as a diplomat and a point of contact for assisting and coordinating agencies, providing lines of authority, responsibility, and communication.

- The public information and liaison officers should consult with experts on animal care before issuing any recommendations on how to deal with them.

Logistics

The logistics function provides the facilities, services, and materials to carry out the plan. Every incident functions on the basis of a consolidated action plan. The action (logistics) plan determines how the logistics will be utilized. Action plans can be either verbal or in writing and are prepared by the planning section.

The following areas should be addressed in action plans:

- Strategic goals,
- Tactical objectives, and
- Support activities needed during the entire operational period.

Written action plans are advisable when resources from multiple agencies are used or when several jurisdictions are involved and personnel and equipment are changed. In prolonged incidents, it may be necessary to develop action plans covering specific periods.

Another important component of logistics that produces an effective emergency management system is a manageable span of control.

Span of Control	Defined as the number of subordinates one supervisor can manage effectively. Guidelines for the desirable span of control recommend from three to seven persons. The optimum number of subordinates is five per supervisor.

Logistics also coordinates the care of volunteers, such as how they will be fed.

Planning

The planning section of the ICS collects, evaluates, disseminates, and uses information about the incident and the status of resources to plan a course of action. Details of planning are available in the FEMA publication, *Guide for All-Hazard Emergency Operations Planning* (State and Local (SLG) 101).

Finance and administration

The finance and administration function of the ICS manages all costs and financial considerations of the incident.

Using the Emergency Operations Center

The Emergency Operations Center (EOC) is the central location where operations are controlled in case of a disaster.

The EOC is activated during the response phase of emergency management. How it is made operational and how the response phase is controlled will determine your success in implementing the preparedness plan and the type of results you will achieve.

Activating the EOC

The first task in any emergency is to survey the situation to determine if the size or severity of the disaster warrants the establishment of an operational EOC. A Federally funded EOC has a permanent staff for daily operations. In other cases, unless the EOC is in a shared position with an existing government agency, such as the communications center of the fire department, it may not be staffed on a regular basis. Staffing the EOC could involve moving people out of their offices and down the hall to the operations center or bringing in people from all over town or the State. There are four classifications that help to determine the EOC operational status.

Minor Emergencies	Minor emergencies are handled on a daily basis by local police and fire departments. Under certain conditions, such as a snowstorm, other departments like public works may become involved. The EOC is not usually activated beyond routine staff levels for minor emergencies.

Limited Emergencies	A limited emergency requires a limited staff for the EOC. Only those functions of the EOC that are necessary to cope with the limited emergency are operational. This condition can also be defined as partial mobilization. Limited emergency situations fall into two major categories. The first limited emergency situation is an advance readiness for what may become a full emergency at a later time. For example, during a hurricane or tornado watch or warning, a plan may call for the activation of a limited staff at the EOC to monitor conditions. The second limited emergency situation is when a minor emergency goes beyond the conditions that can be handled by the daily operations of the local government. For example, suppose a tractor-load of anhydrous ammonia (commonly used as fertilizer) were to leak and threaten the feed of several thousand head of cattle. The plan may call for the activation of the EOC on a limited basis to help with the movement of cattle, help find a source of fencing and supply extra personnel. By doing so, emergency management would be protecting significant amounts of property, human food safety and animal well-being.
Potential Disaster	A potential disaster is one step beyond a limited emergency. In a potential disaster the limited staff should be supplemented so that the situation may be more closely monitored. During this stage, most of the communication links of the EOC are tested and made operational. For example, when a hurricane is several hundred miles offshore and the direction uncertain, the EOC may be in the limited emergency stage. If there is a warning issued, the potential disaster stage is reached.

Full Emergency	A full emergency requires complete mobilization of the emergency operations staff. In the hurricane example, by the time winds are felt in your community, the EOC should be fully staffed and on full emergency status.

Controlling access to the EOC

In order to carry out an effective response to an emergency or disaster, you must be able to run the EOC with minimal interference from those who are not part of the emergency management effort. This often involves controlled access to the EOC. As soon as the EOC goes into emergency status, some type of check-in procedure should be established. The EOC should have a receptionist or guard and each member of the EOC staff should be provided with identification.

The importance of emergency management officials and animal-care representatives meeting before a disaster occurs should be clear. If mutual understanding and exchanges take place before a disaster, it will be possible for emergency management officials to allow access of animal-care officials to the EOC.

Communicating to the outside

The media

Animal issues will be a popular topic for the media. Members of the media should be referred to the PIO for all comments.

The public

Communications are essential to meet the information needs of the public and these issues should be addressed through formal planning. During a disaster emergency management is often bombarded with phone calls from people requesting information and volunteering help. For this reason, and because local phone lines may be jammed, emergency management often has designated phone lines and separate frequencies for communicating among themselves in a disaster. More reliable means such as satellite telephones are becoming more economically available.

Planning for the worst-case scenario by collaborating with radio operators and local Radio Amateur Civil Emergency Service (RACES)

groups may allow communication when more common communications tools are not functional. Animal owners can also communicate information among themselves. For example, telephone or visiting trees, when one person phones or visits two others, who in turn each phone or check two others, etc., can facilitate sharing information and resources. Veterinarians, humane shelters, breed associations, and horse clubs should establish such communication networks ahead of time.

In the past, many efforts to effectively deal with animal-related issues in disasters have been stifled by the lack of communication between emergency management and local animal-care providers. The problems could lead to public resentment and loss of trust in emergency management. This can be avoided if emergency managers and representatives from the animal-care community collaborate before and during disasters.

Public information is conveyed through the PIO whose main responsibility is to update the media. The PIO should also be familiar with the local, State and Federal plans and how they interconnect. When planning for animal issues has taken place before a disaster occurs, communications can help alleviate animal-related problems. Good communication on the care of animals and their owners will also enhance the overall performance and perceived efficiency of the response operation.

Animal care issues

Evacuations

One of the greatest concerns and most controversial issues in emergency management is the evacuation of people with animals. Two views on this issue are explained to follow.

- Rapid evacuation is intended to provide maximum safety for people. Animals are seen as a hindrance to this.
- Many people view their animals as family members or as a source of livelihood and expect them to be cared for by emergency management officials. Most evidence indicates that people who evacuate without their animals later create more problems than those who evacuate with them. Owners should be advised to evacuate with their animals if it does not create a

substantial safety risk.

Some basic assumptions should be reiterated at this point so that emergency managers and owners understand each other's respective responsibilities in dealing with animals in disasters. The ultimate responsibility for any animal lies with its owner. A responsible owner prearranges boarding and ensures that their animals receive appropriate food, water, housing, and veterinary care in a disaster.

Ideally, the responsibility of animal ownership should be understood and publicized as part of a formal plan before the disaster. Past experience suggests that outreach concerning animal-ownership responsibilities should focus on pet owners, who are more likely to be unaware of their role.

The primary reason that emergency management officials help facilitate the care of animals is to enhance the care of people. Further, in the case of livestock producers, veterinary practices, humane shelters, boarding and grooming kennels and breeders, emergency management can help minimize business losses. Providing emergency management expertise and resources for the animal-care providers is a vital support function for community and commerce infrastructure.

Emergency management can facilitate the care of animal owners and their animals in disasters through the coordination of the resources and expertise of emergency management and the animal-care providers. Veterinarians, animal control and humane shelter directors, county extension educators and local evacuation teams are examples of resources with whom to coordinate the care of animals.

Capture and rescue

The decision to evacuate is influenced by the following.

- Nature of the incident,
- The expected length of resident displacement,
- The magnitude of the threat,
- Time of year, and
- Communications available.

Some general principles should be considered when dealing with animals in evacuations.

- All attempts to capture animals are potentially dangerous. Persons should never place themselves in danger to capture or rescue an animal.
- Dogs, cats, horses, pigs, llamas, raccoons and birds bite or snap.
- Cats scratch and bite.
- Cattle, horses, and other large herbivores kick and strike.
- Llamas, sheep, goats and other herbivores charge and butt.
- Some large animals are dangerous by their sheer weight and clumsiness in unfamiliar environments.
- Nobody should be allowed to work with an animal or species with which they are not very familiar.
- The credentials of all personnel who intend to work with animals in disasters should be predetermined, because in a disaster many volunteers will emerge, and it will be impossible to tell who is qualified.

Species differences

The conditions for evacuating vary for the type of species involved.

Dogs	May be the easiest to evacuate.
Cats	Older cats can be impossible to catch without a net and many cats do not travel well.
Fish and exotic animal collections	Require special considerations before moving – such as sources of electricity and suitable water quality.
Large numbers (hundreds) of cattle	Can be moved from a farm within 24 hours if the transportation is coordinated. This may be possible with the help from the transportation department or through a trucker's network.
Horses	Some horse owners do not have adequate transport facilities. Horses do not travel well if not confined to individual spaces in a trailer.

Finally, there are many differences in the way that animals have to be moved. For example, dogs and horses can be lead, but livestock has to be driven. In a disaster, only people who know how to deal with the affected species should address these issues.

Shelter policies

Some localities accept animals into their shelters, but American Red Cross policy states that only seeing eye and hearing dogs will be accepted in its shelters. The reasons for this policy are important to understand because they apply in a general way to issues that must be considered when evacuating animals. The reasons that some shelters will not accept animals are as follows.

Public health regulations	State public health regulations may prohibit animals in public facilities, such as malls, restaurants, churches, schools, etc., with the exception of animals that assist persons with disabilities, i.e., seeing eye dogs and hearing dogs. Disaster shelters are required to operate in accordance with the existing public health regulations of the locality in which they provide services.
Ownership of buildings used as shelters	The occupants do not usually own buildings where shelters operate during a disaster, so the user must abide by the wishes of the building owner.
Well-being of shelter residents	Concerns include injuries, anxiety, and lack of privacy suffered by shelter residents from pets that may bite or cause allergic reactions, phobias and noise.
Liability	There is potential for personal injury and property damage claims arising from animals biting, scratching or chewing; fighting and playing among themselves; and urinating in inappropriate places.

Public health issues surrounding animals in disasters

Historically, the greatest concern regarding animals in disasters has been public health. Particular public health concerns include the following.

- Contamination of the food and water supply,
- Limited food supply, and
- Zoonotic disease transmission and dog bites. Zoonotic diseases are diseases that are transmittable between animals and humans. Examples of organisms that cause zoonoses include salmonella, Cryptosporidium, Campylobacter, and Giardia.

Contaminated food supply

An example of potential food contamination occurred after the 1986 Chernobyl reactor incident. Clouds of radioactive material caused international concern about radioactive contamination of cows, sheep and other food-producing herbivores. Significant public health concerns stemmed from studies on the level of radionucleotide contamination in food including meat, milk, and eggs. Scientific monitoring was necessary to prevent the contamination of animals and their products from entering the human food chain.

More commonly, hazardous materials are released in disasters. Especially on farms, there may be large amounts of fertilizers, herbicides, pesticides and fuels that are spilled in disasters. These hazardous materials can be spread over pastures, contaminate animal feed, or directly contact the animal; thus potentially contaminating animal-based food products. They also represent significant animal welfare concerns. The agency that deals with the inspection of livestock and poultry as food for humans is the U.S. Department of Agriculture Food Safety and Inspection Service. The Food and Drug Administration (FDA) inspects milk products, seafood and non-animal products.

Zoonoses

Zoonotic diseases are transferred between animals and people. Incidences of zoonoses following disasters have not been a documented problem in the United States since the 1950s. The spread of zoonoses is controlled through our public health and food inspection service. Nevertheless, more common zoonotic diseases and the means by which these can affect humans warrants concern. In particular, pets can be infected and expose children to zoonotic diseases.

Some organisms that cause zoonotic diseases are listed below. Humans are most likely to be exposed to zoonotic diseases when animal waste contaminates the drinking water supply. This can occur in floods and after power failure at water treatment plants. Water can also become contaminated when hazardous materials are blown or washed into supplies or when animal manure or dead animals contaminate wells and reservoirs.

Common organisms that cause zoonotic diseases include the following.

- Coliform bacteria (diarrhea)
- Salmonella (diarrhea)
- Campylobacter (diarrhea)
- Cryptosporidium (diarrhea)
- Giardia (diarrhea)
- Ringworm (skin infection)
- Rabies
- Vector borne diseases (e.g. Equine Encephalitis)
- Clostridium perfringens (diarrhea)
- Clostridium botulinum (weakness and collapse)
- Anthrax

This list is not complete. Consult a veterinarian or a public health official for further explanations.

The State health department is the appropriate agency to consult on issues of zoonotic disease. The State health department may call the Centers for Disease Control and Prevention (CDC) for support.

Dog bites

Most dogs in the United States are pets and are not a threat to public safety. However, the chances of being bitten by a dog increases with certain factors. People who have no professional animal-handling experience may put their safety at risk by:

- Surprising or cornering a dog,
- Handling an injured or ill animal, or
- Intervening in dog fights.

The risks of dog bites relates to the natural territorial behavior of dogs. For example, dogs may want to protect where they live and become aggressive toward unfamiliar persons who approach the dog's territory. After disasters, search and rescue personnel may encounter this situation and should use extreme caution. Although it is often rumored that dogs congregate in packs and become a public nuisance after disasters, few such instances are confirmed. Animals that by nature are gregarious do not automatically become aggressive.

Prevention of dog bites

When disaster responders are faced with a dog that interferes with their work, the best solution is to locate the owner or another animal-care provider who knows how to deal with dogs. Animal control personnel and humane groups should be at disaster sites and can help in this situation. If a dog creates a persistent nuisance and the owner cannot be identified, animal control officers should be contacted to capture the dog.

A dog's attitude may be indicated by obvious signs of aggression, such as bearing teeth and growling, or by signs of friendliness, such as tail wagging with upright ears. However, there are many subtle variations on these signs that may be confused by persons who do not routinely deal with dogs. It is safer for inexperienced disaster personnel to refer dogs to others who are familiar and comfortable with handling them.

If a dog attacks you, use the following tactics to reduce the risk of being bitten.

- It is best to stand still. Running incites hunting and chasing instincts in the dog.
- Loudly and firmly shout sit or down. This is often enough to exert dominance over a dog.
- Put something (e.g., a trash can lid) between you and the dog, or the pick up something and pretend to throw it at the dog, this is often sufficient stimulus for a dog to leave.
- If you are thrown on the ground, protect your head.
- Animal control officers should be contacted and informed of the stray dog.

Disaster workers that have been bitten by a dog should seek medical advice as soon as possible. If exposure to rabies is a possibility, post-exposure prophylaxis for rabies should be initiated. Rabies pre-exposure prophylaxis is recommended for disaster personnel.

Persons who are immune compromised should pay special attention if they are bitten by animals, because infections can be more severe in these people. Conditions that may cause immune suppression include chemotherapy treatment, diabetes, HIV infection and removal of the spleen.

Mental health

Mental health is a component of public health that is concerned with the psychological impact of disasters on people. There are several thousand publications addressing the psychology of human disaster victims. People that are separated from their animals may experience the following:

- Re-entry attempts,
- Evacuation failures,
- Separation anxiety,
- Grief,
- Bereavement,
- Anger,
- Guilt,
- Psychosomatic symptoms, and
- Make irrational decisions about their own health.

Keeping animals and their owners together is a way of reducing stress on disaster victims.

Dealing with separated owners and their animals can become predominate issues in large-scale evacuations. Members of the public seeking to be reunited with their pets became a major issue after a train derailment in Wisconsin early in 1996. There was a threat of a large propane explosion and the entire town was evacuated in great haste. Many owners left their pets behind. After a few days the owners became concerned with the safety and well-being of their pets. Several owners risked their lives by entering the secured area at night to rescue their pets. To prevent this from happening, a large-scale pet rescue was

organized. This included the use of armored vehicles and safety equipment for the public. If pet owners had been advised to evacuate with their pets, many of these difficulties may have been avoided.

There is evidence in the literature to suggest that similar issues have arisen several times in disasters. These are real problems that emergency management officials have to deal with. It is no longer a question of whether this behavior is appropriate or not. It is simply a matter of how best to handle it. Close cooperation with the animal-care community is the best way to plan and respond to these issues. Even in the absence of a formal disaster preparedness plan, local veterinarians and animal control or humane shelter directors can be asked to coordinate evacuations and rescues of animals in ways that are compatible with the procedures of the ICS.

Environmental concerns

Animals may escape or be killed in disasters. There is potential for decaying carcasses to impact the environment. Carcasses create biologic waste and attract flies and rodents, which can spread disease. There is also potential for groundwater contamination and bad odors. Escaped animals may wander onto land where they may contaminate water supplies, cause a build-up of manure, overgraze sensitive ecosystems and cause damage to crops.

Carcass disposal

Animal carcasses should be disposed of as soon as possible to avoid creating a health hazard to animals or humans. A small number of animals will not create a major problem if they can be disposed of by a rendering company. However, the disposal of a large number of animals – e.g., several million chickens or several hundred cattle – requires advance planning. Certain governmental agencies may restrict disposal methods. Local ordinances should be reviewed and State and Federal health, agricultural, and environmental departments should be contacted prior to carcass disposal. It may be necessary to obtain waivers.

There are five common methods of animal disposal. These include:

- Rendering,
- Burning (cremation or incineration),
- Burial,
- Composting, and
- Fermentation.

The method used depends on the disaster, location of the bodies, type and number of animals killed, and local ordinances. Regardless of the method used, carcass disposal should be given top priority. If community services are not interrupted, the usual methods for disposal of animals that die naturally can be used. If community services are disrupted, special arrangements will need to be made to accommodate the method chosen.

Rendering	The easiest way to dispose of carcasses, especially those of farm animals. Rendering is a process whereby the carcass is cooked at high temperatures and converted into animal feed or fertilizer. Commercial companies perform this service and may, for a fee, pick up the animals. This method can be used if normal transportation methods and utilities are functional and the rendering company has sufficient trucks and personnel to handle the volume.
Burning	Can be done outside or by using commercial incinerators. Many animal hospitals, humane societies, and diagnostic laboratories have incinerators given that prior agreements are in place. When burning carcasses outside, it is important to let appropriate governmental officials know ahead of time to assure that no ordinances or laws are broken.

Burial	Can be done only where local ordinances and the terrain permit. The location selected should be approved in advance by the appropriate environmental government agency. Burial may only be permitted at certain locations. Arrangements may also have to be made for heavy equipment to move animals and dig the graves. A good resource for these supplies is the State transportation department and National Guard. The U.S. Department of Agriculture Animal and Plant Health Inspection Service "Foot and Mouth Disease Emergency Disease Guidelines" and "Hog Cholera Emergency Disease Guidelines" can be consulted for procedures for preparing the outside burn site, burning and burial.
Composting	Used to dispose of large numbers of poultry carcasses. Composting is the mixing by volume of 1 part carcass to 2 parts litter and 1 part straw in alternate layers in a boxed, enclosed area. The method can also be used for larger animals. Whereas poultry can be placed whole in layers, larger animals need to be cut or ground into smaller parts first. The composting is accomplished by the bacteria in the litter and takes about two weeks to complete. The completed compost pile is odorless and can be used for fertilizer. Details of this procedure can be obtained from the University of Maryland Eastern Shore.
Fermentation	Carcasses are mixed with fermentable sugar in a metal container. Bacteria from the digestive tract of the carcasses ferment the material. The finished product can then be used for animal feed. Details of this procedure can also be obtained from the University of Maryland Eastern Shore.

Animal well-being

Any unfamiliar stress on an animal raises potential concern about the its well-being. Animal welfare can be compromised in disasters in the following ways.

- Being left without food and water in secured areas,
- Prolonged confinement in cages in animal shelters,
- Exposure to the environment,
- Lack of appropriate veterinary care,
- Lack of socialization, and
- The inability to express natural behavior patterns.

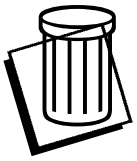
Some of these expectations may sound unreasonable in disasters, especially if the care of humans has not been fully addressed. However, decisions that imply or even deny the need for animal care may incite some members of the public and organized groups to openly criticize emergency management officials. This can lead to poor evaluation of the operation as a whole by the public.

There are some major differences in the laws concerning the well-being of different categories of animals, who owns them and how they are kept. For example, the care of research animals is regulated by USDA, and in some cases by the National Institutes of Health (NIH).

Preventing negative perceptions and the neglect of animal concerns is the major reason why emergency management officials and the animal-care community need to work together before and during disasters. People who work with animals daily understand animal well-being and can convey to others that animal concerns are being addressed in an appropriate manner. Likewise, emergency management officials can give animal-care providers information they need depending on the context of a disastrous situation. A disaster management partnership is the only way to address both sides of this issue.

The following organizations have specific roles in terms of responding to animal issues in disasters.

Agency/Center	Responsibility
State Department of Environmental Management	Deal with the impact on the environment.
Department of Natural Resources	Deal with threats to wildlife.
State Health Departments	Deal with water quality.
State Veterinarian or Department of Agriculture	Would become involved if there were a concern about animal welfare.



LEARNING CHECK – WHAT HAVE YOU LEARNED ABOUT THE RESPONSE TO A DISASTER?

This activity is designed to assess your understanding of the information presented in this unit.
Directions: Answer the questions – use the Answer Key in Unit 9 to check your answers.

True or False

1. A critical incident requires extraordinary measures to protect lives.

2. OSHA requires that an ICS be used by all organizations that handle hazardous materials.

3. Span of control is the number of subordinates one supervisor can manage effectively.

4. In order to carry out an effective response to an emergency or disaster, access to the Emergency Operations Center should be controlled.

5. Emergency management can help minimize the business losses caused by disasters for livestock producers, veterinary practices, and humane shelters.

6. Zoonotic diseases are transferable from animals to humans.

7. In disasters, dogs often become a serious threat to public safety.

Multiple Choice

8. Which of the following is NOT a factor affecting the method used to dispose of animal carcasses?
   a. Type of disaster
   b. Location of the bodies
   c. Number of animals killed
   d. Concern over animal welfare

9. Which of the following is NOT a classification that helps determine the EOC operational status?
   a. Minor emergency
   b. Full emergency
   c. Critical incident
   d. Potential disaster

10. One way to improve animal welfare in disasters includes which of the following?
    a. Leave animals without food and water
    b. Effectively address concern for animals in emergency operations plans
    c. Do not provide appropriate veterinary care
    d. Do not allow animals to express natural behavior patterns

Summary

This unit dealt with issues related to the response to disasters. The organizational structure, command, operations, logistics and plans for the Incident Command System and the use and activation of the Emergency Operations Center were covered. Communicating to the media and the public through public information officers and liaison officers was also addressed. Finally, in terms of animals in disasters, public health and environmental issues were discussed.

Animals in Disasters

MODULE B
UNIT 6

Recovering from a Disaster

Overview

Federal, State, and local governments work together in any major emergency. Emergency assistance funding is based on the concept that each level of government provides assistance only when the next lower level of government is overwhelmed by the scope of the disaster. The exact procedure to obtain Federal or State assistance varies by State, but this unit describes in a general way how it is done.

Objectives

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

- Explain the importance of conducting thorough and accurate damage assessments
- List the major types of disaster relief available to communities, businesses and individuals
- Describe Federal mitigation and preparedness programs

Local damage assessment

When an emergency or disaster occurs, the community emergency preparedness plan is put into operation and the EOC is staffed. The State emergency management office is also notified. Local damage assessment personnel compile records of community damages as the first step in filing a claim for assistance. Damage assessment includes:

- Number of people injured or killed, and
- Damages to structures, infrastructure, and services.

When accounting for the care of animals and their owners, damage assessment also includes:

- Number of animals that have been injured or killed,
- Number of animals that need cages or fencing,
- Damages to animal-related businesses, such as veterinary practices, animal shelters, boarding and grooming facilities and farms.

Photographs and videos of damages can be used effectively for this purpose. Expenditure records related to activation of the EOC, damage assessment, and other operation costs should be compiled in standardized reports.

State assistance

If your initial assessment requires resources beyond your local capability, your State emergency management office should be notified of this immediately. Most States require the chief executive of the local government to officially request a Governor's declaration of disaster in order to obtain State assistance. The local emergency program manager is responsible for local damage assessment and the report to the State emergency management office.

The State, acting on the information provided, will dispatch personnel and equipment to the disaster area and assist in the response and recovery effort. The National Guard may be asked to assist with animal care and control issues and animal-related claims investigations. Detailed assessments and specific requests for assistance will receive the most appropriate response. If the State feels that Federal assistance is also required, the State's director of emergency management alerts FEMA. FEMA may also dispatch representatives to the area.

Federal assistance

Once these groups are assembled, the local emergency program manager works with Federal and State personnel in an expanded damage assessment. An estimate of the type and extent of Federal disaster assistance will come through this joint assessment. If a Presidential disaster declaration appears warranted, your State emergency officer requests that the Governor submit an official request for a Presidential declaration. A request may be formalized in as little as a few days – the better the assessment is at the local level, the more realistic relief funding will be.

Only the Governor or acting Governor of your State can request a Federal disaster declaration by certifying that State and local funds are exhausted and the State emergency plan has been implemented. The State will assume most of the responsibility for seeking Federal assistance. The emergency program manager must however, provide State officials with necessary documentation to support the request for Federal aid. Accurate damage assessment claims must be filed with the appropriate emergency management agency in order to claim against losses suffered by animal-care industries.

A Governor's request for a declaration can result in three responses from the Federal government. The Federal government could issue one of the following.

Presidential Declaration of a Major Disaster	This would free all the resources of the Federal government for assistance.
Presidential Declaration of an Emergency	This would focus on specific assistance needed to save lives, protect property, public health and safety, or lessen the threat of future disaster.
Direct assistance from various Federal agencies	This provides assistance through the emergency or normal programs of Federal agencies, without a Presidential declaration.

What to expect from Federal involvement

If the President declares an emergency or major disaster, a Federal Coordinating Officer will be assigned to coordinate Federal assistance. The Governor will appoint a State Coordinating Officer. The SCO is the main liaison between the FCO and State and local officials. The SCO is the main contact for the affected community in filing a claim.

Once on the scene, the FCO is responsible for:

- An initial appraisal of needed assistance.
- Coordinating the Federal agencies and programs involved in assistance.
- May assist in coordinating the private relief efforts of the American Red Cross, the Salvation Army, the Mennonite Disaster Service, and others. This coordination may also include the Veterinary Medical Assistance Teams (VMAT) and animal-protection organizations.

The FCO does not coordinate humane groups because they are not part of the official response to disasters. Humane groups act on their own accord and provide assistance to individuals and local governments.

Sources of disaster assistance

Federal assistance

There are many Federal government aid programs. These will be listed in summary form here. Aid is usually available for mitigation, preparedness programs, such as educational efforts, and the costs of response and recovery.

Federal funding

The Disaster Relief Act of 1974 (Public Law 93288), often referred to as the Stafford Act, provides the single greatest source of Federal disaster assistance. This act is implemented by FEMA following a Federal disaster or emergency declaration. There are many resources that summarize the types of available Federal aid. FEMA publishes a *Program Guide* and the *Digest of Federal Disaster Assistance*. *Program Guide*

summarizes programs available through FEMA. The *Digest* summarizes Federal programs. Various other groups in the private sector, most notably the American Red Cross, have also undertaken efforts to catalogue available assistance for individuals and local governments.

Federal emergency services

FEMA may provide temporary communication facilities in anticipation of, or following a Presidential declaration. Other emergency services provided include food, water, mass feeding and shelter services in time of natural disaster. Grants are available to remove debris and wreckage from public and private lands following a major disaster. Personnel and equipment for law enforcement, medical evacuation, refugee evacuation, and aerial and mobile search and rescue operations can be obtained. Finally, temporary public transportation services may also be provided.

Federal aid

Federal aid may come in the form of grants, loans, loan guarantees, or technical assistance.

Federal grant	A Federal *grant* is a direct gift of money from the government. You must apply for grants. If there is a member of your community who is skilled in grantsmanship, their expertise would be a valuable asset. Grants take time to prepare and receive. They usually require some type of matching funds from the local community. Before applying for a grant, make sure your community can afford the matching fund requirement and that it is capable of maintaining the project to completion. Many grant applications are for mitigation programs. Such grants may be made available to assist in the reconstruction and repair of highways and roads in a disaster area.

Federal loans	The Federal government may also supply low-interest loans or loan guarantees. A *loan guarantee* is simply a guarantee to a local bank or lending institution that a loan will be paid back. For example, if a local businessman takes out a guaranteed loan and goes bankrupt, the Federal government is responsible to repay the unpaid portion of the loan. For this reason, the government is very careful in deciding who qualifies for a guaranteed loan. Many of the applications for loans are for businesses affected by a disaster.
Technical assistance	*Technical assistance* is usually provided by experts who possess skills that are not available in the local community. For example, the U.S. Public Health Service or military veterinarians can provide assistance in performing damage assessment to the animal industries or an agricultural expert may be sent in to assess crop damage.

Programs for rebuilding of the community

Loans and grants are available for your local community. Areas that may be included are:

- Repair and restoration of public and private nonprofit facilities,
- School construction and equipment,
- Utilities restoration, and
- Food distribution.

Community disaster loans are also available to provide funds to a local government that has suffered a substantial loss of tax and other revenue from a

disaster.

One condition for receiving Federal assistance following a Presidential disaster declaration is that recipients must take measures to mitigate the hazards in the area. To accomplish this, FEMA provides technical assistance and support for State and local mitigation planning. Also, the Interagency Hazard Mitigation Team (IHMT) or a FEMA/State survey team works with local government applicants to evaluate the hazards and develop mitigation plans.

Examples of Federal assistance

Let's look in more detail at some of the specific types of Federal assistance. These can be for the community, industry or individuals.

Grants programs

Agriculture	Agricultural disasters could range from reclaiming land after a flood to major crop damage as a result of drought or insect infestation. There are several types of agricultural assistance programs.
Grants	Available for the purpose of removing damaged timber from privately owned lands when it is in the public interest to do so. The local government may be authorized to reimburse any person for expenses incurred in removing damaged timber that poses a threat to life, property, or creates a flood hazard.
Direct Payments	Available to farmers when they are prevented from planting or suffer substantial loss on planted acres because of drought, flood, or other natural disasters beyond their control. In the past, funding has also been made available to livestock producers under similar programs.

Loans programs

Other businesses	Business and industrial grants are also available.
Grants	May be used for financing industrial sites in rural areas including the acquisition and development of land and the construction, repair, or modernization of buildings, equipment, access roads, and other purposes. Loans are also available to provide working capital for the expansion of a business if it creates substantial new permanent employment.
Agriculture	Emergency guaranteed/insured loans are available to help farmers and ranchers cover their losses resulting from a disaster and return the operation to a sound financial position.
Insurance loans	*Insurance loans* are available for irrigation, drainage, and other soil conservation measures.
Crop insurance	Farmers can get *crop insurance* to ensure that they will have a basic income in the event of drought, freeze, insect infestation, or other natural causes of a disastrous crop loss.
Emergency feed	An *emergency feed* program assists in the preservation and maintenance of livestock where there is not sufficient feed because of a natural disaster. This program is administered through the State director of the Agriculture and Soil Conservancy Service.
Other businesses	
Low-interest loans	The Small Business Administration provides long-term *low-interest loans* to employment sources in disaster areas so that they may resume operations quickly. This helps restore the economic viability of a community.
Economic dislocation loans	*Economic dislocation loans* are available to assist otherwise financially sound businesses in the impacted regions that will become insolvent or be unable to return quickly to their former level of operations. These would be the appropriate format for businesses such as veterinary practices and animal shelters, which contribute to the normal functioning of a community.

Community health services

After a Presidential declaration of a major disaster, funds for crisis counseling services become available. FEMA can support training of disaster workers. FEMA can also request that agencies such as U.S. Public Health Services and the Department of Defense help with the following tasks.

- Plan and supervise health programs,
- Assist and advise in the establishment of programs for the control, treatment, and prevention of disease,
- Assist in the protection of the food and water supplies, and
- Assist in the supervision and establishment of temporary cemeteries and grave registration.

In addition, assistance may be given in the following forms.

- Grants are available for the repair or replacement of health facilities damaged or destroyed by a natural disaster.
- Grants are available for the expansion and improvement of emergency medical services if they are found to be inadequate in times of emergency.
- Technical assistance and training are available to assist in establishing and managing emergency medical services units.

Programs for helping individuals

There is a variety of aid available to individuals following the Presidential declaration of a disaster. Some of these are listed to follow.

- Loans are available for single family homes, including mobile homes.
- Temporary housing may be provided at no cost to those who are displaced.
- Direct grants may be made to individuals or families to meet disaster-related expenses.

Other services include:

- Legal services,
- Unemployment assistance,
- Tax information,
- Educational assistance,
- Emergency food stamps, and
- Loans for refinancing, repair, rehabilitation, or the replacement of property.

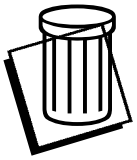
To process individual claims, a Disaster Recovery Center (DRC) is usually set up. Such a center is staffed with Federal, State, and local officials and representatives from private relief organizations. A DRC is a centralized location for assistance to individuals. The following types of assistance may be available. The FEMA regional director decides what assistance to offer.

- Temporary housing,
- Mortgage or rent payments,
- Unemployment payments,
- Job placement counseling,
- Low interest loans to individuals, businesses and farmers,
- Food coupons,
- Individual and family grants,
- Legal services,
- Consumer counseling,
- Mental health counseling,
- Social Security assistance, and
- Veterans assistance.

Individual aid applications are available at the center. This single application procedure is designed to secure aid as efficiently as possible and with minimal burden on the applicant. The victim is guided through the application process and given help in selecting likely sources of aid. Counseling is also provided to help the applicant through the post-disaster recovery process.

Federal mitigation and preparedness aid programs

Weather forecasting and warning	Perhaps the most common emergency service provided by the Federal government is the forecast and warning service for all weather-related natural disasters such as hurricanes, floods, and tornadoes.
Reconstruction	Many grants for reconstruction following a disaster are used for planning, surveying, right-of-way acquisition, new construction, reconstruction, and repair of unsafe bridges. These grants are intended to mitigate the impact of future disasters.
Fire suppression	Federal assistance is available for the suppression of any fire on publicly or privately owned forest or grassland that threatens to become a major disaster. Grants, research contracts, and technical assistance are also available to prevent fires. These include programs to improve suppression techniques, building construction techniques, and human behavior in fire situations.
Flood prevention and protection	The National Flood Insurance Program (NFIP) provides insurance against flood-related losses to property owners and renters in communities that have agreed to adopt and enforce wise floodplain management practices. The NFIP provides maps of flood hazard areas to communities and offers technical assistance in adopting and enforcing required floodplain management ordinances and regulations.
Specialized services	Specialized services and funds are available from other Federal agencies, such as the U.S. Army Corps of Engineers, to lessen the effects of floods through structural flood control projects such as dams and levees.



LEARNING CHECK – WHAT HAVE YOU LEARNED ABOUT RECOVERY FROM DISASTERS?

This activity is designed to assess your understanding of the information presented in this unit.
Directions: Answer the questions – use the Answer Key in Unit 9 to check your answers.

True or False

1. Farmers and ranchers may apply for loans to cover losses from a disaster.

2. Families are not eligible for loans after a Presidential disaster declaration.

3. Emergency assistance funding is based on the concept that each level of government begins to provide assistance simultaneously.

4. Photographs and videotapes of damages are effective in documenting damages and losses.

5. The local damage assessment and report to the State emergency management office are the responsibility of the federal government.

6. While not specifically mandated to do so, the National Guard may assist in animal care and control issues and animal-related investigations.

7. Once a Federal disaster has been declared, the Federal Coordinating Officer is responsible for an initial appraisal of needed assistance.

Multiple Choice

8. Providing for the repair of unsafe bridges is which type of Federal mitigation program?
   a. Weather forecasting
   b. Reconstruction
   c. Fire suppression
   d. Specialized services

9. Which one of the following is NOT a type of assistance provided to individuals immediately following a disaster?
   a. Crop insurance
   b. Food coupons
   c. Temporary housing
   d. Legal services

10. Providing experts with skills not available in the local community is which type of federal assistance?
    a. Federal grant
    b. Federal loan
    c. Technical assistance
    d. Expert advice

THINGS TO DO

- ❑ Determine what emergency or contingency funds are available from your State emergency management office and what the specific procedure is in your State to request Federal assistance. Write down the procedure and insert it in your plan.

- ❑ Review the types of assistance animal owners and other care providers, such as veterinary practices, shelters, groomers and feed stores may want to claim in a disaster. Think of these care providers as individuals, businesses, and charities in terms of disaster victims and what their needs may be.

- ❑ Develop a checklist for performing rapid local damage assessment with regard to animal losses and animal care and control needs. This will assist in ensuring that State and Federal officials are appraised of special animal-related needs for technical personnel, animal feed, treatment needs, carcass disposal, etc.

Summary

In this unit you learned how local, State and Federal governments work together in a disaster. This unit also covered the procedures that must be followed in order to obtain various forms of assistance. It explained the difference between types of assistance, including grants and loans, and also, assistance to communities, businesses and individuals. Finally, this unit described Federal mitigation and preparedness programs including weather forecasting and flood prevention and protection.

Animals in Disasters

MODULE B
UNIT 7

Developing Community Support for a Disaster Preparedness Plan Involving Animals

Overview

This unit covers ways to find community support for your disaster preparedness plan involving animals. It looks at ways to approach the government, organizations and the public. Examples of public awareness campaign ideas and methods to enlist help from the community are given. This unit also identifies training resources including local, State and Federal sources and types of training such as independent study and residential training.

Objectives

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

- Approach government, organizations and the public with your disaster preparedness plan involving animals
- Conduct a public information campaign using brochures and other awareness tools
- Solicit help from the community in promoting the plan
- Locate training opportunities through local, State and Federal, and private organization resources

Spreading the word

Once you have completed the emergency operations plan, let everyone in the community know about it. This is a good time to promote the plan – when enthusiasm is high – through a public information campaign and within your community's government. Use this time to renew contact with agency officials, voluntary groups, and the public. While an annex on the care of animals in a disaster is only a small part of the plan, it provides an opportunity to raise awareness and disaster preparedness.

Your approach will vary with each interest group. Your ultimate goal is

to have a well informed and fully prepared community. A few examples of groups to contact are listed in the next section.

Approaching government

The primary audience for the plan are those people with responsibilities in community organization and emergency operations. The most effective way to get these people involved with the plan is to hold training sessions with various officials, departmental staff, and individuals from the private sector who have defined roles in the plan. The objective of these training sessions is to review with officials how they and their organization fit into the overall plan.

Examples of group to involve in planning include:

- The animal control department – primarily responsible for stray animals (any animal whose owner cannot be identified).
- The health department – deals with any aspect of animal care that may affect human health. This includes oversight of human shelters in disasters.

At these training sessions, you should provide a broad overview of the plan, but also let each individual know their specific duties and responsibilities in times of emergencies or disasters. Meet personally with key individuals within your community's organizational structure. Do not just send out a memorandum informing them of their responsibilities – memos are often lost or put aside. However, a memorandum can be sent after the meeting to confirm what must be done. This will acknowledge the representatives' input and reinforce their commitment.

Approaching organizations

The next group to involve in the implementation of your plan are private-sector groups who have an interest or responsibility for emergency actions. If you have cooperated with these groups throughout the plan development stage, it will be much easier to approach these groups and get their support at this point. Examples of groups to involve in planning include:

- Veterinary practices,
- Animal shelters,
- Businesses that cater to the animal care community, and
- American Red Cross.

If these groups are involved, they should provide people willing to

disseminate information and add credibility to the final plan.

The information shared with these groups will vary depending on what type of group they are, their role in the plan and their stated interest in the plan. Volunteer leaders should be provided with an overview of anticipated emergency operations in the basic plan, though their primary concern will be the annex in which they have a specific role.

Approaching the public

Though the general public will not be interested in the details of the plan, they should be informed when it is completed. The public should know that a plan exists and that its purpose is to help officials and citizens respond to disasters. Their primary concern will be, "what should we do?" People will probably be most interested in annexes on warning, evacuation, and public and animal welfare (food, shelter, etc.).

The animal-owning public will be especially interested in a plan that addresses the care of animals; after all, most people think of their pets as family members. Discussing the care of animals in disasters also provides a great opportunity to introduce basic human disaster preparedness.

Citizens should know how to plan their response and be confident in their plan. You can inform the public about the community's plan through the organizations you have worked with or by reviewing previous disasters that have affected your community. By emphasizing the importance of community preparedness and awareness, the citizen response to a disaster can be greatly enhanced.

There are other ways to notify the public of community plans regarding animals and their owners, and encourage individual plan development. The most obvious is to use the local media. Radio and television stations can broadcast public service announcements. Radio announcements are easy to prepare because they do not require visuals. Or, your local newspaper could run a series of articles about the emergency operations plan. Identify hazards specific to your community.

Another way of getting the word out is to speak to local community groups such as the PTA, Chamber of Commerce or the Board of Realtors. Do not pass up the opportunity to speak to any group.

Brochures

The more informed people are in your community, the better your plan will work in time of emergency. If possible, print a brochure to use as a handout. A local printer may print brochures at no cost. As an enticement, you could have "Sponsored by XYZ business" on the brochure. Many printing companies are willing to print pro bono if they can get free promotion as a result. Other businesses may sponsor your programs if they can see how they will get credit for their input.

Here are two suggested ways to get brochures distributed.

- Use businesses, such as veterinarians, animal shelters, pet and feed stores, and boarding and grooming facilities.
- Ask if the tax collection agency or a public utility will allow you to insert the brochure with a tax statement or utility bill. Some telephone directories include disaster preparedness information as well.

An example of a disaster awareness campaign

Take every opportunity to let the public know what is expected of them in times of emergency. The completion of the plan is one such opportunity. You can provide the public with the following information.

- The plan basics;
- Provisions for warning, evacuation routes, and other efforts to assure their safety;
- Information about shutting off home utilities, food and water storage, and other survival hints.

Don't wait until a disaster strikes before you tell people what to do. Mitigating disasters and getting people and animals out of harm's way is the most effective method of preventing lost lives or property damage in disasters. *Be prepared*!

Remember that people are more likely to care for others, such as their children, parents, grandparents and animals, than they are to care for themselves. Use your plan to care for animals and their owners to enhance overall community disaster preparedness.

Getting help from the community

Trying to develop a list of resources needed in a disaster would be a near impossible task if you were to attempt to do it yourself. Just maintaining a list with current information is difficult. Instead of relying solely on information gained through existing contacts, consider some of the alternative choices listed below.

City departments

Often an emergency management office operates on a limited budget and paid employees are not available to help you. You should look into the possibility of using paid personnel from other departments to help with some of the work. In some jurisdictions, certain departments have slow seasons and personnel could be assigned to help you on a part-time basis. Someone that owns animals whose supervisor will approve of a temporary re-assignment could be an enthusiastic helper.

Community volunteers

Most successful emergency program managers get volunteer help from the community. Take advantage of these resources. A good place to begin is by asking to present your program to citizens groups. See if you can get them to help with the development, maintenance or implementation of your plan. At a minimum, get a personal information sheet from each member so that you can see what special talents, abilities, or equipment they may contribute in a disaster.

> Perhaps the best sources of volunteer help can be obtained from senior citizen groups and young adult groups. Many retired citizens are extremely dedicated and hard workers. Importantly, most of them are available during normal working hours and would not have other responsibilities in an actual event. Senior citizens can be used to take surveys, conduct interviews, and run routine office operations. Young adult groups, such as 4H, Future Farmers of America, pony clubs, explorer scouts or church groups can also be used as volunteers. In some States there is a minimum age requirement at which volunteers can be insured to work in disasters.

Don’t overlook the local media in helping to locate volunteers. For example, local newspapers could print a resource questionnaire that people can complete and mail back.

Improving emergency response through public affairs

Responding to the media and the general public during and after an emergency is just one public affairs responsibility of the emergency manager. Many emergency workers have found that in a disaster, people are likely to pay attention to messages concerning animals; therefore, this is an important way to communicate information that will be helpful to people and animals.

Because emergency management is concerned with protecting lives and property, it is the responsibility of the emergency manager to provide the public with safety information before a disaster occurs. Awareness campaigns, sponsored by community groups, local government officials, and area business and industry, are perhaps the best way to fulfill this responsibility of emergency management.

Awareness campaigns accomplish the following.

- Address hazards concerning your area,
- Provide a public education vehicle for communities, and
- Teach and change the behavior patterns of citizens in preparing for, responding to and recovering from any disaster or emergency.

Kits, handbooks, and other materials are available on almost any emergency subject including hurricanes, tornadoes, earthquakes, and nuclear power emergencies. FEMA and the Red Cross have handbooks concerning natural and technological disaster preparedness. There are also brochures available on the care of animals in disasters. Check with your local emergency management agency, animal shelters and veterinarians.

Emergency managers can distribute pamphlets to stimulate community groups. Choose several volunteers to take the lead and chair a committee, like an official from the mayor's office, a newspaper publisher, or a TV station manager. Involving the community leaders not only makes the job easier, but expands resources for getting the job done.

In addition to helping the citizens of the community, a well-planned public awareness campaign has other advantages. It expands the emergency manager's working relationship with the community and helps develop alliances between the manager and the local media. It also increases public knowledge about the emergency management organization and the services that it has to offer.

In helping animals we help people

It is important to stress that the care of animals does not take precedence over the care of people. To facilitate care for people and animals, emergency management and the animal-care community should enter into partnerships in the planning stage. Having done this it is more likely that issues of importance to both groups will be addressed during a disaster. Furthermore, the most qualified or experienced resources or persons can deal with pertinent issues and speak to the public. To avoid misunderstanding the priorities, issues relevant to the care of people should always be reported first.

Awareness campaigns help the emergency manager and animal-care community grow within their community. There are additional public affairs functions that can be used to build a strong emergency program. Here are some suggestions:

- Deliver speeches to community groups.
- Give presentations at local humane groups, dog training classes, pet stores, horse clubs and farmer's associations. Get emergency managers, veterinarians, humane shelter workers and county extension educators to work together on these presentations.
- Develop personal relationships with the local media. Do not just call or mail public releases. Deliver them and meet the reporters who can tell the story.
- Hold open houses at the Emergency Operations Center where the community can visit and find out just what an emergency manager does.
- Offer to make presentations at local elementary and high schools. Reaching young people is important and often what is learned through these sessions can save a life later.
- Give talks or presentations on how to improve the care of horses at riding schools.
- Work with scout leaders to initiate work among both the Boy and Girl Scouts toward an emergency management badge.
- Invite the media to participate when exercises are conducted, either as a player or an evaluator. This will help reporters learn more about the importance of emergency management.
- Work with the Chamber of Commerce to distribute posters, set up exhibits, etc. during high hazard seasons.

- Cable networks have cable time for local public services. An emergency program can add to your community's safety knowledge and get more support for your programs.
- Have a phone number that interested volunteers can call to become more active in disaster programs.
- Call press conferences to announce initiatives and to comment on ongoing activities or project progress. Consider holding monthly breakfasts or coffees with the local media.
- It is recognized that your priorities lie with the emergency management programs and plans. A public affairs plan can assist in raising the level of knowledge of the importance of emergency management.

Training

In disaster preparedness training, it should be assumed that emergency management personnel are familiar with their duties and responsibilities and that animal-care providers are competent to deal with animal-related issues. Assumptions like the following can be made.

- Veterinarians are familiar with most veterinary emergencies and how to treat them. Veterinarians are generally also familiar with scheduling, directing staff, assessing needs, ordering supplies and distributing these efficiently.
- Animal control and humane shelter workers are often familiar with capture and rescue of animals, as well as housing and feeding needs.
- County extension educators are familiar with animal husbandry, community resources and financial issues.

The expertise of each person should be shared during training – this gives others an opportunity to learn from their peers. It should also be recognized that it may not be necessary for these individuals to be trained in areas where they already have expertise. Relying on and respecting the expertise of others is the best way to facilitate plan development and implementation.

Local training opportunities

Often there are local training opportunities for emergency program managers and others interested in learning more about emergency management. For example, to improve your understanding of the emergency response phase, you can actively participate in or observe the training programs or exercises of your fire or police department. Training should be seen as part of the planning process as it allows the responders to get to know each other and practice working as a team.

From the management standpoint, check the classes offered by your community colleges or the adult evening classes at high schools. There are good courses on basic management principles. The principles learned can be applied directly to your job. Check the classes offered on budgeting and financial planning as well.

Don't overlook the opportunities for training from service agencies such as the American Red Cross. Their programs in first aid and cardiopulmonary resuscitation (CPR) may be important. The Red Cross also conducts disaster services training in areas such as damage assessment or sheltering operations. Educational seminars may be put on by local veterinarians and humane groups. County extension educators can help you understand how issues facing the community's economy relate to animals.

Finally, there are often private sector training opportunities for emergency program managers. For example, a local chemical plant may conduct in-house training programs in hazardous materials management. If in your hazards analysis you find companies dealing with hazardous materials, check to see if they have training programs for their staff. Ask to be included in this training. Most companies would be happy to have you as a participant or observer.

State training opportunities

State training programs in emergency management are often the most accessible. However, the Federal government, many counties, and municipalities also offer training. Many who start with one course, get hooked, and take many more.

Most State training officers coordinate training and educational programs for emergency program managers and other interested citizens. Classroom instruction is provided in the areas of emergency management, preparedness planning, emergency operations, and career development. Participation in these programs may be open to all people who hold emergency operations positions.

The State training officer is a valuable resource even if you are unable to participate in programs offered by your State. The training officer can help you define your training needs or suggest other training resources that may be of value to you.

Some States have emergency operations simulation training. This is when a mock emergency is staged to test your preparedness plan. In the process, you see if the plan is executed properly. Most of all, you learn if the plan meets the demands of the simulated emergency. It is better to find out where the plan needs improvement in a simulation than in an actual emergency. You may also want to take a course that will teach you how to conduct your own exercises.

Federal training opportunities

FEMA provides a variety of opportunities for continuing education as part of its Professional Training Program. The subjects of FEMA training are as varied as the emergency management profession. They include topics such as fallout shelter management, working with public officials, and managing volunteers. They improve the personal effectiveness and professional stature of emergency program managers. Instructional methods include independent study and classroom instruction.

The FEMA regional training and education officer can tell you what programs are available for you and your emergency management and operations staff. Let's look at a few of them that may be of interest. This course is the first on animals in disasters. By taking it you become a more responsible animal owner or emergency manager with an awareness of disasters, hazards and how to manage and survive these.

Independent study courses

Emergency Management, USA gives the public an orientation to disaster hazards and preparedness. This course provides a good overview of many topics with which both the public and the emergency program manager should be familiar. This course provides detailed information on natural hazards in the United States, how to prepare family plans and how to safeguard against common household hazards. Module A of *Animals in Disasters* is based on *Emergency Management, USA*.

The Emergency Program Manager: An Orientation to the Position is designed to provide the basics of the job for the emergency program manager. Module B of *Animals in Disasters* course is based on the *Emergency Program Manager* course.

A Citizen's Guide to Disaster Assistance provides a basic understanding of the roles and responsibilities of the local community, State, and the Federal government in providing disaster assistance. It is appropriate for both the general public and those involved in emergency management who need a general introduction to disaster assistance.

Hazardous Materials: A Citizens Orientation details how to identify and protect against hazardous materials. This course has a lot of useful information and is highly recommended for employees of all animal-related businesses.

Another independent study course that should be of interest for nuclear attack and fixed nuclear facility preparedness is called *Radiological Emergency Management*. Its subjects include fallout effects, exposure monitoring, and protective and decontamination measures. It also covers many other subjects that are relevant to workers in veterinary practices, where X-ray equipment and occasional radioisotopes are used for diagnostic tests.

Basic Incident Command System – this Basic Incident Command System (ICS) Course will begin to provide training for non-first responders who may be called upon to function in an ICS environment. The course has been developed as self-instruction but can also be delivered, with the use of an instructor, in a classroom. The course includes a large number of scenarios, examples, and opportunities for students to apply what they have learned.

Residential and field training

Residential and field training provided by FEMA emphasizes performance-based exercises. It is highlighted by the *Integrated Emergency Management*, a course where personnel from all departments and agencies in a community practice policy-making, planning, and emergency operations. This course covers the definition of emergency management, the relationship between military defense planning and emergency management planning, nuclear weapons effects, shelters, natural disasters, warning, emergency operations, support programs, and governmental responsibilities for emergency management. This course is recommended for public health and services veterinarians and related animal-care providers.

In addition to *Integrated Emergency Management*, major topics of the FEMA training program include sessions in four areas.

1. The *Emergency Management Process Curriculum* provides training that cuts across subject areas and hazards to provide personnel with the management and problem-solving skills needed to effectively lead a community in an emergency. Included is a professional development series for emergency program managers as well as upper-level workshops and seminars dealing with a broad spectrum of contemporary emergency management problems and issues. The audience for these courses, which build on training at the State and regional levels, includes the emergency program manager; emergency operations managers in law enforcement, fire, public works, and emergency medical; and public officials responsible for protecting lives and property.

2. The *National Preparedness Program Curriculum* provides an overview of the multijurisdictional civil preparedness program including civil defense policies, nuclear civil preparedness and crisis relocation, planning economic stabilization, and special subjects such as shelter design, industrial protection, and the National Defense Executive Reserve. The audience for these varied courses includes emergency program managers, architects and engineers, industrial emergency planners, regional and State personnel with responsibility for developing and conducting multi-hazard evacuation exercises and nuclear civil protection planners.

3. The *Natural Hazards Curriculum* explores natural hazards focusing on planning, response, recovery, and mitigation. Some courses are fundamental – exploring the characteristics and causes of the major natural hazards – while others deal with specialized training and exercises designed to test participants and their community in terms of hazard identification, mitigation, response operations, recovery, and community planning. Participants in these courses include emergency program managers; Federal, State, and local personnel involved in all phases of natural hazard programs; and specialized audiences such as hazard mitigation teams.

4. The *Radiological and Technological Hazards Curriculum* deals with contemporary problems associated with nuclear power plants, nuclear weapons accidents, and the manufacture, transport, and storage of nuclear and other hazardous materials. These courses also address radiological defense in a nuclear attack. Attendees at courses in this curriculum include Federal, State, local, and nuclear power plant radiological health physics personnel; and those involved in off-site nuclear plant emergency planning.

Advanced training in each of these curriculum areas is offered by FEMA to graduates of these programs. Generally, the participants must complete assigned advanced reading or research to discuss the topic during the seminar.

Implementing training programs

Often the best training programs for disaster management are those that are developed by the persons who will be leaders in the event of a disaster. The principles of effective training are:

- *Promote* the idea that the course would be useful to the public.
- *Instruct* members of the public by providing information and incentives for study.
- Use the trained public as a *resource* for further information and education of others.
- Once you have completed this course you should feel comfortable to *teach* it to others. You will soon discover that the best way to learn is to teach, and teaching emergency management is rewarding and helpful to others.

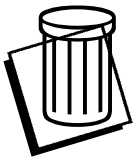
How can training and education be conducted?

The following table outlines ways that training and education can be conducted.

Individual instruction	Teaches a particular skill to a trainee on a one-on-one basis. This may sound very formal but can include showing a subordinate how a specific piece of equipment works or how your warning system is activated or showing a senior citizen volunteer how your filing system works.
Meetings	Many meetings are a form of instruction. Any time a group gets together to discuss a problem, learning takes place. As you can see, your job as an emergency program manager may involve a lot of informal instruction. There may be times when you will actually be teaching your audience something you have learned at one of the seminars you have attended.

Prepackaged programs	Often videotapes, movies or slide presentations are available on various topics that might be of interest to those associated with your emergency management program. FEMA publishes a catalogue of motion pictures useful for community education. The American Red Cross, the U.S. Geological Survey, the U.S. Department of Agriculture and the Discovery Channel also provide a variety of useful training and education films.
Seminars	A seminar is a special kind of meeting or group instruction in which experts or key individuals are used as resources for a group. With a seminar, your primary function is to organize the seminar and have experts carry on the instruction for you.
Exercises	You learned earlier that the preparedness plan should be tested and that many State offices will help you in carrying out a simulated emergency. These simulations, whether table-top or full-scale exercises, are valuable learning experiences.

As you can see, being an educator or trainer does not mean that you are standing in front of a class and giving a lecture. In your daily routine as an emergency program manager, you will often be educating someone about emergency management or training them to perform some skill.



LEARNING CHECK – WHAT HAVE YOU LEARNED ABOUT DEVELOPING COMMUNITY SUPPORT FOR YOUR DISASTER PREPAREDNESS PLANS?

This activity is designed to assess your understanding of the information presented in this unit.
Directions: Answer the questions – use the Answer Key in Unit 9 to check your answers.

True or False

1. The public is likely to be most interested in the parts of the plan that discuss warning, evacuation, and public and animal welfare.

2. Senior citizen groups are a good source of volunteer help.

3. Sending memos is an effective way to inform key individuals in your community of their emergency responsibilities.

4. Kits and handbooks describing a variety of emergency subjects are available from FEMA.

5. Veterinary practices and animal shelters should be included in planning for disasters.

6. The public is the primary audience for emergency operations plans.

7. Brochures are ineffective in providing the public with information regarding emergency plans.

Multiple Choice

8. Which of the following is NOT a method for implementing training?
   a. Promote the idea that the course is useful
   b. Provide incentives for study
   c. Use trained members of the public as a resource
   d. Share information only among trained members of the public

9. Teaching a particular skill to a trainee on a one-on-one basis is which type of training?
   a. Individual instruction
   b. Seminar
   c. Table-top exercise
   d. Focus group

10. Providing volunteer group leaders with an overview of anticipated emergency operations in your basic plan is a method of approaching which of the following groups?
    a. Government
    b. Organizations
    c. The public
    d. Animal-care providers

THINGS TO DO

1. Work with the public affairs branch of your local government to develop a small informational brochure about the Emergency Operations Plan for the general public. It should contain short clear sentences so everyone can understand it. It should explain briefly what the some of the issues affecting animals and their owners in your community are, what warning system is in place, how the people will be notified, and what to do when the warning sounds.

2. Develop a private community resource inventory and catalog the resources in a systematic way. If you already have a resource inventory, determine when it was last updated. If the resource inventory is more than a year old, verify the information on the list and see if you can expand it.

3. Contact your State training officer and find out what training programs your State offers, when they are given, and who can attend. Find out if the State conducts simulation exercises.

4. Contact your county or State training office and determine which Federal training programs are available and appropriate to you.

5. Contact the local and State library.

6. Use the Internet. Visit www.fema.gov and www.redcross.org for starters.

Summary

This unit addressed ways to find community support for your disaster preparedness plan involving animals. It covered ways to approach the government, organizations and the public. Examples of public awareness campaign ideas were given as well as methods to enlist help from the community. This unit also identified training resources including local, State and Federal sources and types of training such as independent study and residential training.

Review

Instructions

Now you have completed the units of instruction for this Module. Before moving on to the final examination, let us revisit the scenarios presented in Unit 2. As you will recall, the scenarios included information and questions for animal owners and emergency managers. Having completed this Module, think about how your answers to these questions may have changed.

1. A train carrying propane derails and prompts the immediate evacuation of 1000 households in a 2-mile radius. You estimate that approximately 50 percent of families in the evacuation area own animals.

   Emergency Managers: Do you have an action plan to evacuate people with their animals, and know where to house the animals?

   Animal owners: How would you evacuate with your animals? What supplies would you take for your pets? Where would you shelter your animals?

2. During Hurricane Jackie many persons become separated from their horses.

   Emergency Managers: How would you reunite the horses and their owners?

   Animal owners: There are 35 bay mares in a temporary enclosure for horses. If one of them were yours, how would you positively identify it to a security guard at the pasture?

3. In a tornado, a tank of herbicide is knocked over. It may have contaminated the grain bin on a dairy farm and been sprayed onto the skin of some pigs at a neighboring farm.

   Emergency Managers: What are the potential public health risks associated with contaminated livestock feed and food-producing animals?

   Animal owners: Who would you contact to determine the safety of your cows' feed and to determine the potential contamination of the milk?

   The pigs do not appear to be affected.

   Who can determine the withdrawal times for safe slaughter of the pigs for human consumption?

4. Many farms are in low-lying areas close to rivers. Flooding is a problem that can result in animals drowning, and difficulty in supplying feed to stranded animals.

   Emergency Managers: How many farms in your community are potentially affected by floods and what types and numbers of animals do they have? How would you obtain this information?

   Animal owners: How could the problem of recurrent flooding be prevented? What department in your State could help you in this regard?

5. During a heat wave there is a local power failure that results in the death of 500,000 chickens in two adjacent barns.

   Emergency Managers: What emergency power supplies could have been mobilized and prevented this costly loss?

   Animal owners: How would you dispose of this large mass of dead birds?

6. A brush fire precipitates the escape of a large private collection of exotic animals. The animals include lions, tigers and bears. There is great risk of people being injured. The animals are very valuable and belong to an influential local resident.

   Emergency Managers: Should the escaped animals be killed or captured?

   What factors would help you reach the most appropriate decision.

   Animal owners: Whom would you call in your jurisdiction to help you with this situation?

Animals in Disasters

MODULE B
UNIT 8

Module B Final Examination

How to take the Module B final examination

The following Module B final examination is a test to find out how much you have learned about emergency management from this course.

A final examination answer sheet is included with the course. Fill in your name, address, social security number, and the date. Mark your answers in the appropriate spaces. Use a soft lead (#2) pencil.

While taking the test, read each question carefully and select the answer that you think is correct after reading all the possible choices. Complete all of the questions. You may refer to the course materials to help you answer the questions.

When you have completed the examination, prepare the answer sheet as directed and drop it in the mail. Your answers will be scored and the results returned to you as quickly as possible. If you score at least 75 percent, you will receive a certificate of completion from FEMA. If you score less than 75 percent, you will have another chance to take the test.

This examination consists of 50 questions. The test should take no more than 60 minutes. Find a quiet spot where you will not be interrupted during this time.

Animals in Disasters: Module B Examination

Directions: Carefully read each question and all of the possible answers before you mark your answers on the answer sheet provided with the course materials. There is only one correct answer for each test item.

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1. True (A) or False (B). The care of animals in disasters does not affect the safety and care of humans.

2. True (A) or False (B). The care of animals in disasters is equally important to the care of people.

3. True (A) or False (B). The number of people employed in agricultural industries is growing in United States.

4. True (A) or False (B). The spoilage of human food is a traditional concern people have held in regard to animals in disasters?

5. Approximately what percentage of U.S. households owns pets?
   a. 10 percent
   b. 30 percent
   c. 50 percent
   d. 80 percent

6. One of the most important reasons for owning animals as pets includes which one of the following?
   a. Source of income
   b. As companions
   c. A food source
   d. Animal husbandry

7. True (A) or False (B). There is no known benefit for the collaboration between emergency management officials and animal-care providers.

8. True (A) or False (B). Plans should respect the concerns of people that do not wish to be exposed to animals.

9. The best disaster preparedness starts at which level?
   a. Personal
   b. Local
   c. State
   d. Federal

10. Which of the following forms the basis for emergency preparedness?
    a. Plan of action
    b. Incident command
    c. Emergency operations center
    d. Federal aid

11. Specific laws that require certain action by the local government in the event of an emergency are which of the following?
    a. State laws
    b. Federal mandates
    c. Directives
    d. Memorandum of understanding

12. Which of the following Federal organizations is most likely to provide assistance regarding the safety of livestock feed in a Federally declared disaster?
    a. U.S. Department of Agriculture
    b. U.S. Food and Drug Administration
    c. Environmental Protection Agency
    d. Federal Emergency Management Agency

13. Which of the following is a characteristic of a good emergency operations plan?
    a. Little involvement from sources outside the emergency management structure
    b. Language that is detailed and technical in nature
    c. Plan is not exercised
    d. Based on valid assumptions

14. Which level of emergency management is the best for implementing comprehensive emergency management programs?
    a. Personal
    b. Local
    c. State
    d. Federal

15. Of the various levels of emergency management, which is the most important at which to develop emergency management plans?
    a. Private industry
    b. Local
    c. State
    d. Federal

16. True (A) or False (B). The emergency operations plan functions as a local law.

17. A legal agreement among two or more local jurisdictions that plan to assist each other in cases of emergencies is which of the following?
    a. Mutual aid agreement
    b. Local law
    c. Local ordinance
    d. Memorandum of understanding

18. Which of the following government agencies may send veterinary medical assistance teams (VMAT) in the event of an emergency?
    a. Department of Defense
    b. Department of Health and Human Services
    c. Department of Agriculture
    d. Federal Emergency Management Agency

19. True (A) or False (B). Farmers are traditionally reluctant to apply for grants for which they are eligible.

20. Which one of the following is NOT a factor in determining local hazards?
    a. Past history
    b. Geological characteristics
    c. Assessment of economic value
    d. Presence of military installations

21. In terms of animals in disasters, which one of the following factors should be considered as part of vulnerability analysis?
    a. Size and composition of animal-care industries
    b. Hazardous materials transported through your community
    c. Hazards associated with the geography of your area
    d. Strategies to mitigate the effects of natural hazards

22. Adding a distinctive smell to odorless liquid propane gas is an example of what type of mitigation activity?
    a. Reducing or limiting the amount of hazard manufactured
    b. Modifying the basic qualities of a hazard
    c. Modifying the rate or spatial distribution of the release of the hazard
    d. Disseminating information

23. Which of the following is the most common concern regarding wildlife populations in disasters?
    a. Overpopulation
    b. Power outages
    c. Ownership of wildlife
    d. Wildlife causing crop damage

24. Which of the following is NOT a responsibility of an Incident Command Center that is established in the event of a hazardous materials incident?
    a. Monitoring and containing the spill
    b. Providing first aid to animals
    c. Identifying materials involved
    d. Fighting fires

25. Which one of the following organizations provides general control of the perimeter surrounding a hazardous materials incident?
    a. Federal Emergency Management Agency
    b. Department of Transportation
    c. State police or highway patrol
    d. Local firefighters and emergency medical technicians

26. Which Federal agency issues standards and regulations regarding the transportation of hazardous materials?
    a. Environmental Protection Agency
    b. Occupational Safety and Health Administration
    c. Department of Defense
    d. Department of Transportation

27. True (A) or False (B). Animals that have been exposed to hazardous materials present no danger to people.

28. Which of the following forms the foundation for an effective all-risk emergency planning and response capability to any critical incident?
    a. Animal care annex
    b. Response team
    c. Emergency Operations Center
    d. Incident Command System

29. Which one of the following was NOT recommended by FIRESCOPE?
    a. Designated incident facilities
    b. Standard and integrated communications
    c. Manageable span of control
    d. Nonstandard terminology

30. True (A) or False (B). Command, operations and logistics are three of the five functional elements implemented at an incident site.

31. True (A) or False (B). A unified command is generally applied when there is no overlap of jurisdictional boundaries.

32. During this stage of emergency operations center activation the limited staff is supplemented so that the situation may be more closely monitored.
    a. Minor emergency
    b. Limited emergency
    c. Potential disaster
    d. Full emergency

33. During a situation in which the emergency operations center is activated, who is responsible for conveying information to the public?
    a. Public information officer
    b. Radio Amateur Civil Emergency Service
    c. The media
    d. Highest ranking local official

34. When confronted by a dog that seems as though it is going to attack you, which of the following actions will most likely reduce the risk of being bitten?
    a. Running away
    b. Yelling for help
    c. Laying down and playing dead
    d. Putting something between yourself and the dog

35. Which method of carcass disposal involves mixing 1 part carcass to 2 parts litter and 1 part straw in alternate layers in a boxed enclosed area?
    a. Rendering
    b. Burial
    c. Composting
    d. Fermenting

36. Which of the following is NOT accounted for in community damage assessment?
    a. Number of animals killed or injured
    b. Damages to structures
    c. Damages to a community's infrastructure
    d. Personal items such as photographs

37. Who is responsible for reporting local damage assessment to the State emergency management office?
    a. The Governor's office
    b. FEMA regional director
    c. Local emergency program manager
    d. The Mayor or highest ranking local official

38. Which of the following focuses on specific Federal assistance needed to save lives?
    a. State disaster declaration
    b. Presidential emergency declaration
    c. Incident command system
    d. Emergency operations center

39. Who is responsible for coordinating the Federal agencies and programs involved in assistance?
    a. State coordinating officer
    b. FEMA
    c. Federal coordinating officer
    d. Local emergency manager

40. True (A) or False (B). A loan guarantee is a guarantee to a local bank or lending institution that a loan will be paid back.

41. True (A) or False (B). Insect infestation is an example of an agricultural disaster that may follow a flood.

42. Which of the following is NOT a form of assistance that may be provided following a Presidential-disaster declaration?
    a. Legal services
    b. Food coupons
    c. Permanent housing
    d. Job placement counseling

43. Holding training sessions for officials with roles in the emergency operations plan is an example of approaching which of the following groups?
    a. Organizations
    b. The public
    c. The media
    d. Government

44. True (A) or False (B). Creating brochures is an expensive and ineffective way to inform the community about the emergency operations plan.

45. Which of the following is the most effective way of preventing lost lives or property damage in disasters?
    a. Mitigation
    b. Training
    c. Exercising
    d. Planning

46. True (A) or False (B). Senior-citizen volunteers are a valuable source of volunteers.

47. Public awareness campaigns accomplish which one of the following?
    a. Form partnerships between emergency management and animal-care communities
    b. Plan implementation including who is responsible for which actions
    c. Address hazards that may potentially affect your community
    d. Assign roles to various governmental agencies in emergency response

48. Which of the following is NOT a method used to build a strong emergency management program?
    a. Hold open houses at the emergency operations center
    b. Work with the Chamber of Commerce to distribute posters
    c. Deliver speeches to community groups
    d. Memorandums to the local media

49. True (A) or False (B). Residential and field training provided by FEMA emphasizes performance-based exercises.

50. True (A) or False (B). Many meetings are a form of instruction.

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Animals in Disasters

MODULE B
UNIT 9

Appendices

Appendix A	Definition of components of an EOP
Appendix B	Sample State plan: Indiana
Appendix C	Sample emergency animal-care annex to county plan: Franklin County, OH
Appendix D	SLG 101 extracts regarding Animal Control
Appendix E	Learning Checks Answer Key
Appendix F	FEMA-related acronyms

Appendix A

Definition of components of an EOP

The Basic Plan

A plan begins with a series of statements that serve as the *introduction to the basic plan*. These include:

- *Promulgation statement* – signed by the chief executive giving the plan authority.
- *Forward* – describes the planning process, abstracts the contents in an executive summary, and States the goals of the plan.
- *Table of contents* – annexes and appendices.
- *Instructions* – how to use the plan, who will use the plan, its purpose and distribution.
- *Change record* – noting date and pages revised.

The basic plan should be treated as the umbrella document that draws together all other parts of the plan. Its primary audience is the chief executive and other policy makers. Members of the public may also find it useful. Examples of plans and their objectives are also given in the appendix.

The parts of the basic plan after the introduction statement are:

- *Statement of purpose*. To provide the community with an effective and efficient emergency management operation that protects life, property and assists in recovery and assistance. Often the statement of purpose is important to establish the priorities that a community finds acceptable.
- *Situations and assumptions.* The types of disasters or emergency situations that may occur in the jurisdiction are described here. Include the amount of warning time, the degree of damage that may be expected or any specific situations that may be peculiar to your community. For example, if you are located in the vicinity of a nuclear power plant, you may wish to describe the various types of emergency situations that may occur from that particular facility. Be realistic. Make valid assumptions. The plan of operation for meeting these emergencies will be based on the assumptions made in this section. For a description of potential disasters consult the *hazard and vulnerability analysis* that should be in the *general plan* of the jurisdiction. Include a review of efforts undertaken to mitigate potential disasters.
- *Organization and assignment of responsibilities*. This section deals specifically with how the jurisdiction will be organized to carry out the plan. (It is *not* how the plan will be carried out.) This is a key section of your plan and will require detailed descriptions. It should

define the roles of local officials in the emergency management structure. Certain officials may be given specific assignments. The lines of authority between the various government officials, the emergency program manager and the heads of the various government departments should be specified.

The organizational structure that is implemented for a disaster situation should mirror the structure that is used for daily operations. It should allow for the expansion and extension of duties to include such items as damage assessment, liaison with community groups, and emergency shelter management. Ideally, personnel should continue to work with the supervisor and associates that they work with on a regular basis.

Emergency management is a community responsibility, not just a local government responsibility. The organizational structure should also clearly identify those individuals or organizations that have the responsibility to coordinate resources that are outside the direct control of the local government. The organizational structure should also provide for a *disaster public information function*.

- *Concepts of operations*. Describe the roles and relationships of government agencies and how they interact with each other and the private sector. Include:
  - Interjurisdictional relationships among levels of government;
  - Curtailment of nonessential functions during emergency conditions;
  - General need for time-phase of operations (pre-emergency, emergency, and post-emergency);
  - Supporting plans and procedures as a basis for operations;
  - Expectations for training, exercising, and critiquing;
  - Efforts directed toward mitigation and recovery; and
  - A discussion of the decision-making processes that affect emergency management operations.
- *Administration and logistics*. Address management of resources, general support requirements, and availability of services and support for all phases of comprehensive emergency management. The plan should establish policy for obtaining and using facilities, materials, services and other resources required for any emergency management aspects.
- *Plan development and maintenance*. Provisions should be established for review, modification, acceptance, and approval by the chief executive. The continuous review required to update the plant to reflect improvements needed as a result of experiences in emergency management and changing emergency situations and assumptions is especially important.
- *Authorities and references*. Include laws that provide the basis for a comprehensive emergency management plan. Statutes, executive orders, regulations, and formal agreements that pertain to any type of emergency should be listed. All references that provide the basis for emergency planning should be listed, such as general planning guidance, plans of other agencies, plans of other levels of government, and the like. The

citing of reference materials, especially those of other levels of government, is valuable. For example, the State may wish to reference regional and local plans, both of which may be complementary to its own plan.

- *Definition of terms*. A list of definitions should be given for terms that are not commonly known as well as those used in the plan that could cause confusion if misinterpreted. For example, you may wish to define mutual aid, hazardous materials, or radiological emergency. The terms you choose to define will depend on the type of community in which you live. This will be an important area for the development of plans for animals and their owners because emergency managers and animal-care industry representatives may not be familiar with many of the terms that each use every day.
- *Annexes to the basic plan*. The purpose of an annex is to describe operations for a particular function. It defines the function and shows how activities of various participants in the functional organization are coordinated. The annex is action oriented. It is written for, and preferably by, the person responsible for controlling resources available to accomplish the objectives of the function in any large-scale emergency. In our current case, an annex would be for the care of animals.
- *Appendices*. An appendix contains details, methods, and technical information that are unique to specific hazards identified as being likely to pose a threat of disaster in the community. Appendices should be attached to functional annexes and should have sections corresponding to those in the annex for which supplementary hazard-specific information is required. Examples of the type of information that is relevant to the care of animals and their owners is the number and types of farms in floodplains or the number of households that own pets or exotic animals.
- Standard operating procedures and other attachments. Procedures and other types of operational information necessary to support and provide directions to disaster personnel may be attached to any of the plan elements. These attachments may include: checklists, maps, standard operating procedures (SOPs) catalogues of resources, call lists, contact lists. Examples relevant to the care of animals and their owners would be space for housing animals in boarding kennels, grooming facilities, department and pet stores' supplies and supplies such as fencing or medication. The attachments are working documents and will be frequently modified. You should allow for removal and insertion of changes and new procedures, etc.

Appendix B

Sample State plan: Indiana

Note: This plan was selected because it was recognized by FEMA in 1997 as an "Exemplary Practice."

VETERINARY SERVICE AND ANIMAL-CARE ANNEX

I. PURPOSE

The purpose of this Veterinary Service and Animal-care Annex is to provide guidelines for rapid response to disasters affecting the health, safety, and welfare of human beings and animals. Veterinary medicine and animal-care resources in emergency preparedness, response, and recovery include, but are not limited to, small and large animal care, facility usage, and displaced pet/livestock assistance.

II. SITUATION AND ASSUMPTION

A. Situation

1. A disaster or major emergency is any occurrence, natural or man-made, that causes substantial suffering to human beings and animals, and catastrophic damage to property.

B. Assumptions

1. The Indiana State Board of Animal Health represents animal health concerns of the State and maintains liaison with the emergency management and environmental protection agencies; departments and/or agencies that represent veterinary medicine, public health, agriculture, non-native wildlife, and humane societies and animal control agencies.

2. The Indiana Board of Animal Health coordinates veterinary involvement with the State Emergency Management Agency.

3. The coordinating body responsible for planning all animal response through the State emergency operations plan will be the State Annex for Veterinary Emergencies Committee.

4. The State Veterinarian will nominate a permanent chair to the State Annex for Veterinary Emergencies (SAVE) Committee.

5. State Annex for Veterinary Emergencies (SAVE) Committee membership will consist of representation from Indiana State Board of Animal Health, State Emergency Management Agency, State (Agricultural) Emergency Board, Indiana Veterinary Medical Association (IVMA), Indiana Veterinary Medical Technicians Association, Indiana Association of Animal Control Personnel, accredited zoos, and other official response groups.

6. The State Annex for Veterinary Emergencies (SAVE) Committee will assist the SEMA in developing letters of (public) agreement with animal health personnel, pet food manufacturers and pharmaceutical companies as a resource in the event of a disaster that impacts a substantial animal population. Other responsibilities will include maintaining and updating these resource lists on a regular basis.

7. Animal health personnel pre-enrolled with the SAVE Committee are the first line for response to emergencies involving animals in their communities.

8. If an emergency incapacitates local veterinary activities or if the magnitude of the emergency exceeds local veterinary resources, veterinary resources from adjacent counties may be requested in accordance with any pre-existing agreements.

9. Animal-care personnel will participate in emergency operations on a voluntary basis.

III. CONCEPT OF OPERATIONS

A. Mitigation

1. State Board of Animal Health coordinates with the Office of the Commissioner of Agriculture, State Emergency Management Agency and other appropriate agencies in providing information to local agriculture and companion animal publications on reducing disaster impacts on animals.

B. Preparedness

1. The State Board of Animal Health provides an organizational structure, chain of command, and outline of the duties and responsibilities of animal-care personnel involved in implementation of the response to a disaster or major emergency.

2. The State Board of Animal Health provides a current directory of recognized animal health care responders and licensed veterinarians residing in the State to the State Emergency Management Agency who will in turn disseminate to local Emergency Management Agencies for their Resource Directory.

3. In State emergency exercises, the State Emergency Management Agency will request from the SAVE Committee, recognized animal health care responders for participation.

4. Determining the training requirements of responders will be the responsibility of the individual recognized organizations of the SAVE Committee.

5. All member organizations of the SAVE Committee should encourage their members care to become incorporated into local jurisdictional Emergency Operations Plans (EOPs)

C. Response

1. Recognized animal-care responders involved in emergency management will:

    a. Coordinate with governmental authorities in establishment of emergency aid stations and staging of emergency relief.

    b. Coordinate with governmental authorities in matters of evacuation.

    c. Cooperate with governmental authorities in matters of equipment use and provision of transportation.

    d. Cooperate with mutual aid operatives.

    e. Cooperate in matters of salvage and restoration of community order.

    f. Maintain security of veterinary medical facilities and supplies.

    g. Coordinate with public information operations to communicate alert status, volunteer mobilization, and casualty and damage information.

    h. Temporarily arrange for or provide food, water, and shelter for small and large animals.

    i. Provide care for sick and/or injured animals.

    j. Recommend methods of proper disposal of dead animals in coordination with Indiana Department of Health, Indiana Department Environmental Management and other agencies.

    k. Recommend methods and supervise prevention and control epizootic and zoonotic diseases.

    l. When medical facilities are unavailable, permit use of veterinary facilities and equipment for temporary human medical care during extreme emergencies involving mass casualties.

D. Recovery

1. Provide documentation of injuries and deaths of animals and cascading events resulting from emergencies and disasters.

IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. The Indiana State Board of Animal Health is the primary organization for coordination, direction and control of veterinary services and allied associations and agencies assisting in emergencies and is responsible for the following:

1. Communication with recognized animal health care responders, and agencies.

2. Appointment of the Animal-care Coordinators for the State EOP.

3. Coordination disaster activities with the State Emergency Management Agency.

4. Coordination of member organizations of the SAVE Committee and other appropriate organizations such as Indiana Veterinary Medical Association (IVMA), Indiana Veterinary Technician Association (IVTA) Indiana Association of Animal Control Personnel, accredited zoos and universities.

5. Coordination multistate disaster response with other State Veterinary Medical Associations and Emergency Management Agencies.

6. Maintenance a list of Emergency Field Veterinarians, Emergency Animal Control Personnel, Emergency Field Veterinary Technicians and Emergency Non-native wildlife Field Personnel, and their alternates.

7. Activation of the phone tree of Emergency Resources, when necessary.

8. Coordination of all press releases and public service announcements, with the State Emergency Management Agency PIO spokesperson.

9. Assistance in coordination of donations of food, feed, supplies, and resources.

10. Maintenance of liaison with regulatory agencies.

11. Determining which animal-care personnel are qualified to enter disaster areas.

12. Coordination of sample collection with the State Chemist and Animal Disease Diagnostic Laboratory.

V. DIRECTION AND CONTROL

A. The initial point of contact is the State Board of Animal Health who will contact the State Veterinary Coordinator who will coordinate activities with the recognized animal health care responders.

B. During times of Federal assistance when the resources of the State have been exhausted or overwhelmed, the Regional Veterinary Activities Commander (ReVAC) of the AVMA Emergency Response Force is the liaison between local veterinary responders and Veterinary Medical Assistance Teams of the US Public Health Service. The ReVAC will coordinate veterinary service activities with the State Veterinary Office.

VI. CONTINUITY OF GOVERNMENT

A. During emergencies, the line of succession for Veterinary Coordinator will be the other members of the State Board of Animal Health.

VII. ADMINISTRATION AND LOGISTICS

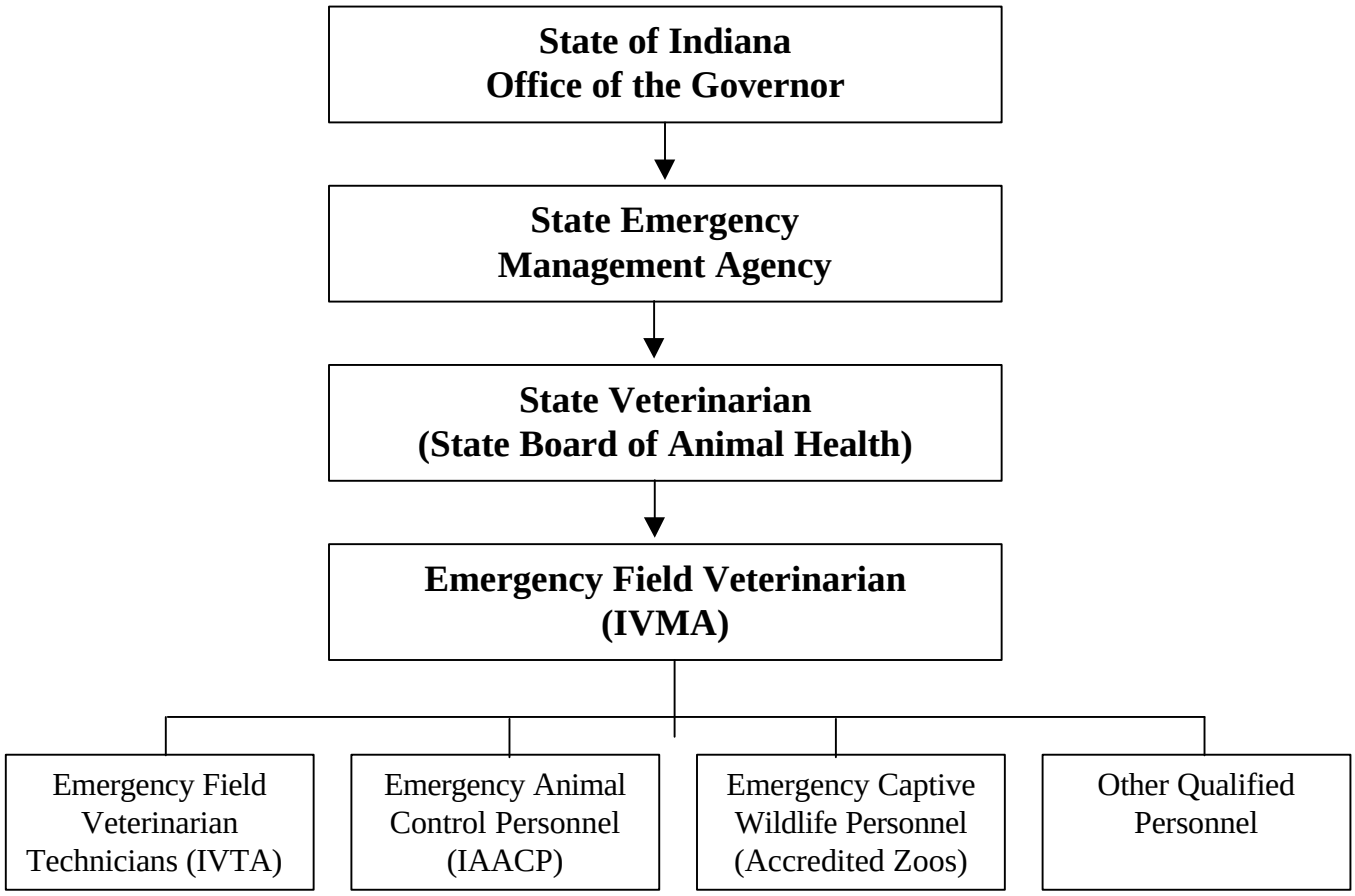
A. The Indiana State Board of Animal Health assigns a Coordinator who will serve with the staff of the SEMA when activated for mock and actual disasters.

VIII. PLAN DEVELOPMENT AND MAINTENANCE

A. The State Annex for Veterinary Emergencies (SAVE) Committee reviews this annex to the State EOP to ensure that necessary updates and revisions are prepared and coordinated, based on deficiencies identified in exercises and emergencies.

B. Changes to this annex will be coordinated by SEMA and distributed to all holders of the State Emergency Operation Plan (EOP).

ORGANIZATIONAL CHART OF EMERGENCY RESPONSE FOR ANIMALS AND THEIR OWNERS



IVMA: Indiana Veterinary Medical Association
IVTA: Indiana Veterinary Technicians Association
IAACP: Indiana Association of Animal Control Personnel
Other Qualified Personnel: includes farm owners

MEMORANDUM OF UNDERSTANDING BETWEEN THE INDIANA VETERINARY MEDICAL ASSOCIATION AND THE INDIANA STATE BOARD OF ANIMAL HEALTH AND THE INDIANA STATE EMERGENCY MANAGEMENT AGENCY

WHEREAS On December 5, 1989, Executive Order 89-19 was signed. The following exerts are selected points relating to the Memorandum of Understanding:

"The Director of the State Emergency Management Agency (SEMA) is hereby appointed to act as the State Coordinating Officer under the Civil Defense and Disaster Law of 1975, [IC 10-4-1-2] to coordinate all emergency and disaster mitigation, preparedness, response and recovery activities in Indiana...

...All departments, agencies, commissions, institutions, and other authorities in State government shall cooperate to the maximum extent possible with the implementation of this executive order...

The State Coordinating Officer...shall be authorized to utilize and allocate all personnel, equipment, materials and other resources to cope with the emergency or disaster..."

WHEREAS To carry out this mission SEMA has assisted in bringing together the Indiana State Board of Animal Health and the Indiana Veterinary Medical Association in a mutual agreement to enhance the response of the State during a disaster or emergency. Under the direction of the Indiana SEMA, the Indiana State Board of Animal Health is the responsible agency for veterinary actions in disasters. It is therefore appropriate that the Indiana State Board of Animal Health enter into the following agreement on behalf of the State of Indiana.

WHEREAS This Memorandum of Understanding between the Indiana State of Board of Animal Health, and the Indiana Veterinary Medical Association — Emergency Response Force (hereafter referred to as "IVMA-ERF") is hereby entered into to ensure rapidly available veterinary assistance in the event of a disaster or mass incident in the State of Indiana, in which (i) animals require rescue, capture, veterinary medical care, preslaughter inspection, euthanasia, or (ii) recommendations on requirements for housing, feed, care and carcass disposal.

WHEREAS During activation to an actual mass incident involving animals, or SEMA sponsored training exercise, all IVMA-ERF members will be considered emergency management workers performing services at the request of the State Board of Animal Health, for purposes of the provisions of IC 10-4-1-8.

WHEREAS During activation to an actual mass incident involving animals, or SEMA sponsored training exercise, unless otherwise agreed to in writing by the

Director of SEMA or his authorized representative, the IVMA-ERF will be considered a "Mobile Support Unit," for purposes of IC 10-4-1-12.

NOW THEREFORE, The parties hereby agree as follows:

1. During activation to an actual mass incident involving animals, or SEMA sponsored training exercise, the Indiana State Board of Animal Health will provide reimbursement for IVMA-ERF members: A) health and medical expenses; and B) worker's compensation.

2. During activation to an actual mass incident involving animals, unless otherwise agreed to in writing by the Director of SEMA or his authorized representative, the State of Indiana will provide reimbursement for: A) travel and subsistence costs associated with the response of the IVMA-ERF within the State of Indiana at State government rates; B) the repair and replacement of IVMA-ERF equipment and material; however, such funding shall be provided only when the Director of the State Budget Agency has made a determination that funds are available.

3. For purposes of this Memorandum of Understanding, "activation period" will include those activities from the time that a member departs home or regular work site to begin travel to a designated site after receiving a request to activate, through the return of the IVMA-ERF member to the IVMA-ERF designated base.

4. For purposes of this Memorandum of Understanding, "SEMA sponsored training exercises" include those training exercises which the Director of SEMA or his authorized representative has officially notified the Indiana State Board of Animal Health in writing and to which the Director of SEMA or his authorized representative has agreed in writing. The State sponsored training period will be recognized the same as an activation period.

5. For purposes of this Memorandum of Understanding, "Emergency Field Veterinarian" will be defined by the qualifications outlined in the American Veterinary Medical Association Emergency Preparedness and Response Guide (AVMA-EPR Guide).

6. The IVMA-ERF agrees to provide to SEMA: A) recruitment of trained and qualified veterinary medical professionals (Emergency Field Veterinarians) to support its mission for each of the following categories: domestic livestock, poultry, companion animals, captive wildlife and laboratory animals; B) response within one hour of notification to a prearranged deployment site; C) a member to the State Annex for Veterinary Emergencies (S.A.V.E.) Committee; and D) upon request of the Director of SEMA, an IVMA-ERF Officer for deployment with the State Emergency Management Agency Forward Response Team.

7. Emergency Field Veterinarians shall endeavor to maintain an equipment, supply and drug cache sufficient to respond to the veterinary medical needs of at least

seven domestic livestock and poultry farms of average size for the State of Indiana, or one hundred fifty (150) companion animals.

8. SEMA agrees to provide to the IVMA-ERF: A) a twenty-four (24) hour, seven (7) days a week telephone contact point for local communities and Federal requests for assistance; B) a means of immediate notification and contact with SEMA, for the Command Staff (Chairperson of the IVMA Disaster Preparedness Committee) of the IVMA-ERF; C) transportation for members of the IVMA-ERF to and from an incident scene; D) pending availability, specialized equipment upon the request of the S.A.V.E. Committee; E) SEMA staff support for the team during activation; f) access to the State of Indiana equipment and supply surplus that is under the designation of SEMA; and G) emergency management related training as part of a training curriculum. When requested, SEMA will conduct special training, and sponsor Animal Health Response personnel at classes presented at the Federal Emergency Management Training Institute.

9. It shall be the responsibility of the IVMA Disaster Preparedness Committee to select only personnel who will be responding to the request for assistance are responsible persons, and the conduct and actions of said personnel shall be the responsibility of the party sending assistance.

10. In the case of a state of emergency that is localized to a community the Chief Elected Official in whose community the emergency state exists, and who places the request for assistance, shall in all instances be in command of the emergency as to strategy, tactics, and overall direction of the operations. With the approval of the Chief Elected Official the Emergency Field Veterinarian will coordinate all efforts to rescue, capture, triage, treat injured, inspect preslaughter or humanely destroy animals affected by the emergency. The Emergency Field Veterinarian will also determine the housing, feed and care requirements of animals affected by the disaster, and the need for carcass disposal. The Emergency Field Veterinarian will enact these functions through collaboration with and between Emergency Animal Control Personnel, Emergency Field Veterinary Technicians, Emergency Captive Wildlife Personnel and other qualified persons.

11. In the case of an emergency in which the State Emergency Operations Center is activated, the Emergency Field Veterinarian will perform his/her responsibilities in close collaboration with the representative of the State Veterinarian's Office located in the Emergency Operations Center. The Emergency Field Veterinarian will coordinate all efforts to rescue, capture, triage, treat injured, inspect preslaughter or humanely destroy animals affected by the emergency. The Emergency Field Veterinarian will also determine the housing, feed and care requirements of animals affected by the disaster, and the needs for carcass disposal. The Emergency Field Veterinarian will enact these functions through collaboration with and between Emergency Animal Control Personnel, Emergency Field Veterinary Technicians, Emergency Captive Wildlife Personnel and other qualified persons.

12. IVMA-ERF members who are activated to an actual mass incident involving animals, or a SEMA sponsored training exercise, are considered emergency workers performing emergency management services at the request of the Indiana Board of Animal Health for the purpose of IC 10-4-1-8.

13. Animal Health Response personnel who are not State employees are subject to deactivation by their employer upon request. Deactivation requests will be coordinated through the designated representative of the State Veterinarian's Office in the Emergency Operations Center.

14. The normal primary functions of each of the Animal Health Response Personnel groups are as follows:

A) The designated representative from the State Veterinarian's Office in the Emergency Operations Center will provide directions on strategy, tactics and overall direction of the operations for the Emergency Field Veterinarian.

B) The Emergency Field Veterinarian will report to the representative of the State Veterinarian's Office located in the Emergency Operations Center during a state of emergency on progress in the field and to request necessary supplies.

C) The Emergency Field Veterinarian will provide and/or convey directions on strategy, tactics and overall directions of the operations for Emergency Animal Control Personnel, Emergency Field Veterinary Technicians, Emergency Captive Wildlife Personnel and other qualified personnel.

D) Emergency Animal Control Personnel will rescue, capture, house and maintain domestic livestock, poultry and companion animals. In the case of domestic livestock and poultry, the Emergency Field Veterinarian may delegate the care, feeding and housing responsibilities to the owner or regular care takers of the animals. Under these conditions the owner becomes a temporary volunteer for the State of Indiana, who follows directions on care, housing and treatment given by the Emergency Field Veterinarian or his/her delegate.

E) Emergency Field Veterinary Technicians will be responsible for the treatment and care of injured animals. Treatment and care will be prescribed by the Emergency Field Veterinarian. Emergency Field Veterinary Technicians may also assist in the capture, rescue, housing and care of animals in collaboration with all other qualified groups.

F) Emergency Captive Wildlife Personnel will be responsible for and assist in the rescue, capture, transport and euthanasia of captive wildlife; and they will advise on housing and care requirements of captive wildlife. The Emergency Field Veterinarian will designate a person responsible for the care, feeding and housing of captive wildlife. This person may be the owner or regular care taker of the affected animals. Under these conditions, the owner becomes a temporary volunteer for the State of Indiana, who

follows directions on care, housing and treatment given by the Emergency Field Veterinarian or his/her delegate.

G) The Emergency Field Veterinarian may receive directions for operations and procedures from other State agencies, such as to conduct post mortem examinations by the Director of the Indiana Animal Disease Diagnostic Laboratories; blood sample collection as part of a disease eradication program by the State Veterinarian; or feed sample collection by the State Chemist. The Emergency Field Veterinarian will carry these requests out to the best of his/her ability.

The undertakings of the Indiana Veterinary Medical Association (IVMA) with this Memorandum of Understanding are not binding legal obligations but are simply expressions of the IVMA's willingness to use its best efforts to achieve the objectives described in these undertakings.

THIS MEMORANDUM OF UNDERSTANDING is effective the thirtieth (30) day of May, 1995, and will remain in effect through the thirty first (31) day of December, 1998, unless earlier terminated in writing by either party. Such termination shall be effective thirty (30) days after receipt by the other party of the termination notice.

Indiana State Board of Animal Health
805 Beachway Drive
Indianapolis, IN 46224
By: (Dr. Bret Marsh, State Veterinarian)

Indiana Veterinary Medical Association
4901 Seville Court
Indianapolis, IN 46208
By: (Dr. Ralph Bailey, President IVMA)

State Emergency Management Agency and
Department of Fire and Building Services
Indiana Government Center South
302 West Washington Street, E208
Indianapolis, IN 46204
By: (Mel Carraway, Executive Director, SEMA)

SUMMARY OF MEMORANDA OF UNDERSTANDING WITH OTHER GROUPS

The following are extracts from the Memoranda of Understanding with other responder groups. The two paragraphs extracted here distinguish the roles of each of the responder groups. Other than these extracts the memoranda are essentially the same as the memorandum with the IVMA; they differ only in name of the groups involved.

MEMORANDUM OF UNDERSTANDING BETWEEN THE INDIANA ASSOCIATION OF ANIMAL CONTROL PERSONNEL AND THE INDIANA STATE BOARD OF ANIMAL HEALTH AND THE INDIANA STATE EMERGENCY MANAGEMENT AGENCY

... NOW THEREFORE, The parties hereby agree as follows:

5. For purposes of this Memorandum of Understanding, "Emergency Animal Control Personnel" will be defined by the qualifications outlined in the IAACP Emergency Response Team volunteer application.

7. Emergency Animal Control Personnel shall endeavor to maintain an equipment and supply cache sufficient to respond to the animal care needs of one hundred fifty (150) animals.

MEMORANDUM OF UNDERSTANDING BETWEEN THE INDIANA VETERINARY TECHNICIAN ASSOCIATION AND THE INDIANA STATE BOARD OF ANIMAL HEALTH AND THE INDIANA STATE EMERGENCY MANAGEMENT AGENCY

... NOW THEREFORE, The parties hereby agree as follows:

5. For purposes of this Memorandum of Understanding, "Emergency Field Veterinary Technician" will be defined by the qualifications outlined in the American Veterinary Medical Association Emergency Preparedness and Response Guide (AVMA-EPR Guide).

7. omitted

(It was assumed that veterinary technicians would not require their own supply cache, rather they would be working with other groups that would supply these)

MEMORANDUM OF UNDERSTANDING BETWEEN THE *"Name of Accredited Zoo"* AND THE INDIANA STATE BOARD OF ANIMAL HEALTH AND THE INDIANA STATE EMERGENCY MANAGEMENT AGENCY

... NOW THEREFORE, The parties hereby agree as follows:

5. For purposes of this Memorandum of Understanding, "Emergency Captive Wildlife Personnel "will be defined by the qualifications outlined in the American Association of Zoological Parks and Aquariums accreditation questionnaire (Safety Section).

7. The *"Name of Accredited Zoo"* shall endeavor to maintain an equipment, supply and drug cache sufficient to respond to the veterinary medical needs of captive wildlife according to the American Association of Zoological Parks and Aquariums "Procedures for Recapture of escaped Animals".

RESPONSIBILITIES OF THE ANIMAL DISEASE AND DIAGNOSTIC LABORATORIES DURING DECLARED DISASTERS

Situation and Assumptions

The following responsibilities become effective only in the event a disaster having been declared by the Governor of the State of Indiana.

Animals affected by declared disasters must be referred to the Indiana Animal Disease Laboratories either by the field veterinarian at the disaster site or by a representative of the State Veterinarian's Office in the Emergency Operations Center.

All animals referred to the Animal Disease Diagnostic Laboratories (ADDL) must be clearly identified as apparent disaster victims by the person delivering the animal(s) to the Laboratories.

Responsibilities

The responsibility of the Animal Disease Laboratories (ADDL, West Lafayette, and ADDL-SIPAC) is to establish a diagnosis of the cause of injury, disease, or death of animals apparently affected by a declared disaster. Animals may be affected as immediate result of the disaster or later as a result of factors that arose from the disaster. The intent of making a diagnosis is to determine the association between the disaster and injury, disease or death.

A request for the ADDL to conduct post mortem examinations may be initiated by the owner of an animal, the Emergency Field Veterinarian or the State Veterinarian.

During the period in which a disaster has been declared Field Veterinarians may also, under the terms of the Memorandum of Understanding between the Indiana State Emergency Management Agency and the Indiana Veterinary Medical Association with the guidance of the ADDL and the approval of the State Veterinarian's Office conduct post mortem examinations record the results and collect appropriate samples for diagnostic analysis.

Copies of the post mortem reports will be sent to the owner, Emergency Field Veterinarian and the State Veterinarian's Office.

Costs

Under the conditions of a declared disaster, all costs incurred by the ADDL as a result of examinations on animals affected by the disaster will be paid for by the State of Indiana. These may include fees for post mortem examinations, serologic, toxicological, and microbiologic tests.

Costs that occur for the Emergency Field Veterinarian conducting post mortem examinations and sample collection are covered under a separate Memorandum of Understanding between the Indiana State Emergency Management Agency and the Indiana Veterinary Medical Association.

During a disaster situation at the discretion of the representative of the State Veterinarian's office located in the Emergency Operations Center, animals may be tested for diseases , for which the State of Indiana has a disease eradication program at no cost to the State or owner.

If an owner chooses to use laboratories other than the ADDL, he/she will be responsible for all costs.

The cost of tests that are required for movement of animals outside of the State of Indiana will be paid for by the animal owner.

How to contact the State Diagnostic Laboratories

Both branches of the ADDL have 24 hour emergency services. They can be contacted as follows:

Animal Disease Diagnostic Laboratory (ADDL), Purdue University, West Lafayette, IN 47907. Telephone number: (XXX) XXX-XXXX

Animal Disease Diagnostic Laboratory, SIPAC, 11367 East Purdue Farm Road, Dubois, IN 47527-9666. Telephone number: (XXX) XXX-XXXX

RESPONSIBILITIES OF THE STATE CHEMIST DURING DECLARED DISASTERS

Situation and Assumptions

The following responsibilities become effective only once a disaster has been declared by the Governor of the State of Indiana.

Animal feed may become contaminated directly as a result of a disaster, or later as a result of factors that arose from the disaster. In either case the State Chemist Office remains the only agency that should be used to determine the suitability of feeds intended for consumption by animals.

If an owner of an animal that has been affected by a declared disaster moves the affected animals out of the State in of Indiana without the written consent of the State Veterinarian he/she relinquishes all rights for services described in this statement.

Responsibilities

The responsibility of the State Chemist office is to collect samples of suspected contaminated animal feed and to determine whether the feed is safe for consumption by animals.

Under non-disaster situations the State Chemist has the authority to examine all commercial foods intended for feeding to any specie of animal other than man. Commercial feed includes all processed feeds or feed ingredients, and whole grains if adulterated through. During a declared disaster the State Chemist may also examine other (unadulterated) feeds intended for consumption by animals such as whole grain.

The State Chemist office does not have the ability to deal with radioactive contamination of animal feeds. In the event of animal feed being suspected or known to be contaminated by radioactive materials, the animal feed portion of the ingestion pathway for nuclear power plant emergencies will be activated if needed.

A request for the examination of any suspected animal feeds may be initiated by the owner, the Emergency Field Veterinarian or the State Veterinarian.

No animal feed that is suspected of contamination should be moved or disturbed or fed to animals before it has been investigated and deemed safe for consumption by animals. If the suspected feed must be moved, the owner must clearly and in writing or other traceable method (e.g., photo, video) document where the feed was stored before the disaster, moved to during the disaster, moved after the disaster and all utensils, equipment and materials that were used to move the feed. These records must be made available to the State Chemist or their representative at the time of sample collection.

The State Chemist is the only office that may delegate the collection of feed samples and the performance of assays to persons and/or laboratories not usually employed by that office. These may include the Emergency Field Veterinarian and commercial laboratories.

Copies of the results of analytic reports on feeds tested as the result of a disaster will be sent to the owner, the Emergency Field Veterinarian and the State Veterinarian's Office in addition to other persons usually receiving these reports.

Costs

Under the conditions of a declared disaster, all costs incurred by the State Chemist office or their authorized delegates will be paid for by the State of Indiana. Examples of these costs include the cost of travel of State Chemist Field Inspectors, sample handling and the performance of assays on these samples.

If an owner chooses to a use a different laboratory than that of the Indiana State Chemist he/she will be responsible for all costs.

How to contact the State Chemist

The State Chemist Office can be contacted Monday through Friday 8:00 am to 5:00 p.m. by phone.

If the State Chemist has to be contacted outside of regular working hours the following persons can be contacted:

Dr. Alan Hanks, Indiana State Chemist, home telephone number: (XXX) XXX-XXXX

Mr. Jeris Eikenberry, Feed Administrator, home telephone number: (XXX) XXX-XXXX

Dr. Rodney Noel, Laboratory Director, Associate State Chemist, home telephone number: (XXX) XXX-XXXX

Appendix C

Sample emergency animal-care annex to county plan: Franklin County, OH (follows)

ANNEX TO FRANKLIN COUNTY EMERGENCY OPERATIONS PLAN

EMERGENCY ANIMAL CARE

Purpose

Coordinate public and private sector resources to meet the animal service needs that may arise during an emergency including:

- Rescue and capture animals that have escaped confinement
- Evacuation/transportation
- Sheltering
- Medical care for the sick and injured
- Quarantine of infectious or contaminated animals
- Disposal of dead animals

The primary focus of this plan is for the care of companion animals. Additional plans/annexes may be added to address other than companion animals.

Response workers activated by this plan will be registered and sworn volunteers of the Emergency Management Agency for Franklin County, and as such will have statutory protection under

Ohio Revised Code Section 5915.10 Immunity from liability
Ohio Revised Code Section 4123.031-4123.037 Worker's Compensation

HAZARD ANALYSIS

Pet Population Estimates

Based on the American Veterinary Medical Association's 1992 studies, the following are the estimated number of pets per household.

	% of households owning a pet	Number of pets per household
Dogs	36.5	1.52
Cats	30.9	1.95
Birds	5.7	2.16

1990 census figures indicate Franklin County has 405,418 households. Based on these numbers the estimated pet population figures for Franklin County are:

Dogs	224,926
Cats	244.285
Birds	49,915

There is also an undetermined number of exotics and pocket pets.

Possible Hazards

The *Hazard Analysis for Franklin County* identifies; flooding, tornadoes, and hazardous material spills, as the three hazards posing the greatest threat to the county. All three could create the need to evacuate people from their homes which would also displace companion animals. These hazards could also cause injury or death to animals and allow animals to roam unattended.

It is not expected that any of these hazards would affect the entire county. According to the *Hazard Analysis for Franklin County* flooding could affect multi-communities but less than half the county. Tornadoes and hazardous material spills could also affect more than one community, but would not be as wide spread as flooding. The duration of these hazards is variable. Any one of them could cause the separation of animals from their owners for several days, perhaps weeks. Secondary events, such as power outages, could prolong the situation.

Smaller scale events, such as a fire at an animal care facility or an animal transport accident could also require emergency animal care.

EMERGENCY ANIMAL CARE

Agency/Function Responsibility Chart

P = Primary Responsibility S = Support Responsibility	Plan Activation	Public Information	Animal Transport	Emergency Medical Care	Non-Emergency Medical Care	Shelter	Quarantine	Disposal	Resources
Veterinary Community				**S**	**P**	**S**	**S**	**S**	
Veterinary Hospitals				**P**	**S**				
Animal Control			**P**		**S**	**P**			
Humane Society			**S**		**S**	**S**			
OSU College of Veterinary Medicine			**S**	**S**	**S**	**S**			
Emergency Management Agency	**P**	**P**							**P**
Ohio Department of Health							**P**		
County Engineer								**S**	
American Red Cross	**S**	**S**							
County/City Health Departments			**S**				**S**	**P**	

Appendix D

Excerpts regarding animal care from State and Local Guide (SLG) 101. Guide for all-hazard emergency operations planning. Federal Emergency Management Agency, 1996.

Overview of Contents
Please note that, unlike previous FEMA planning guidance, this Guide addresses animal care and control and gives extensive treatment to resource management (including donations management).

Chapter 2: The Planning Process; page 2-3
Potential Team Members

The planning team should be drawn from various groups that have a role or stake in emergency response. The important thing is for the planning coordinator to ensure that the planning team membership represents a good cross section of the organizations involved in the jurisdiction's emergency response effort.

Organizations in the animal care and control community, including veterinary services.

Chapter 4: Basic Plan Content; page 4-8
Emergency Manager

Assists, as appropriate, the animal care and control agency staff's efforts to coordinate the preparedness actions needed to protect and care for animals during and following catastrophic emergencies.

Chapter 4: Basic Plan Content; page 4-10
Public Information Officer (PIO)

Coordinates with the animal care and control agency to obtain information for dissemination to the public on the appropriate action that should be taken to protect and care for companion and farm animals, and wildlife during disaster situations.

Chapter 4: Basic Plan Content; page 4-11
Evacuation Coordinator

Coordinates all evacuation planning activities with the Emergency Manager.
Assists, as appropriate, the animal care and control agency staff's coordination of the preparedness actions that are needed to prepare for the evacuation of animals during catastrophic emergencies.

Chapter 4: Basic Plan Content; page 4-13
Mass Care Coordinator

Assists, as appropriate, the animal care and control agency staff's coordination of the preparedness actions that should be accomplished in order to feed, shelter, and provide medical treatment for animals during and after catastrophic emergencies.

Chapter 4: Basic Plan Content; page 4-14

Animal Care and Control Agency

(Note: In some jurisdictions the responsibilities assigned to this organization may be performed by the State, non-profit, or volunteer organizations. For example, the State might assign the State Veterinarian or someone from the Department of Agriculture to assume responsibility for this activity, whereas a local jurisdiction might assign responsibility to a governmental animal control department or contract with a non-profit or volunteer organization, such as the Humane Society or Society for the Prevention of Cruelty to animals (SPCA).)

- Coordinates the services and assistance provided to the animal victims. Activities may include the protection, care, and disposal (if appropriate) of animal victims impacted by disasters.

- Coordinates preparedness activities with the appropriate public and private sector organizational representatives. These activities include planning that addresses provisions for protection of companion and farm animals, wildlife, animals in zoos and aquarium parks, animal shelters, animal research facilities, university medical and animal science centers, pet stores, etc. Note that extensive coordination with State/local agencies such as fish and game departments; farm bureaus; wildlife, natural resources, and agriculture departments; game wardens; the jurisdiction's Emergency Management Agency staff; the individuals tasked in the EOP to serve as the Evacuation and Mass Care Coordinators, PIO, Health and Medical Coordinator, Resource Manager, etc. and other non-government organizational representatives from the ARC, Humane Society, American Veterinary Medical Association, State veterinarians associations, veterinary technician associations, live stock and horse associations, kennel clubs, and other animal protection volunteer groups will be necessary to ensure the needs of animals are met during disaster situations.

- Forms emergency response teams (evacuation, shelter, medical treatment, search and rescue, etc.) that includes trained professionals and volunteers to accomplish necessary actions during response operations. Team members may include animal care and control staff, Humane Society staff, veterinarians, veterinary technicians, livestock inspectors, game wardens, farmers, kennel owners, volunteers from animal protection organizations, etc.

Attachment A: Direction and Control; page 5-A-14

Public Information Officer (PIO)

Handles inquiries and informs the public about disaster damage, restricted areas, actions to protect and care for companion animals, farm animals, and wildlife, and available emergency assistance.

Attachment A: Direction and Control; page 5-A-17

Animal Care and Control Agency

When notified of an emergency situation, sends a representative to the EOC, if appropriate.

Manages public and private sector efforts to meet the animal service needs that arise including:

- Rescue and capture of animals that have escaped confinement and displaced wildlife.
- Evacuation.
- Sheltering.
- Care of the injured, sick, and stray.
- Disposal of dead animals.

Activates emergency response teams (evacuation, shelter, medical treatment, search and rescue, etc.) as needed.

Prepares a resource list that identifies the agencies/organizations that are responsible for providing the supplies (medical, food, and other necessary items) needed to treat and care for injured and sick animals during large-scale emergencies and disasters.

Coordinates response activities with the appropriate representative in the EOC (EOC Manager, Evacuation Coordinator, Mass Care

Coordinator, ARC, PIO, Health and Medical Coordinator, Resource Manager, etc.).

Coordinates the rescue of injured or endangered animals with fish and game departments, wildlife organizations, county cooperative extension offices, veterinarians, etc.

Attachment B: Flooding and Dam Failure; page 6-B-6

When Floods Develop Slowly

For flood emergencies that develop slowly enough to permit evacuation, provide the public information and instruction on:

What to take or not to take to shelters (including options available for companion animals).

Attachment B: Flooding and Dam Failure; page 6-B-8
Health and Medical
The following planning considerations should be addressed, if appropriate, in one or more appendices to a health and medical annex:

> Provisions to keep people informed of the health and sanitary conditions created by floods: flood waters may carry untreated sewage, dead animals, disinterred bodies, and hazardous materials.

Attachment D: Emergency Public Information; page 5-D-6
Message Content.
Following is suggested general content for pre-impact messages. These will depend on the amount of time available for action and on the particular hazard. Hazard-specific information and instructions should be appended to the annex.

> Instructions on how to protect and care for companion and farm animals (location of animal shelters, provisions and requirements--e.g., use of leashes or cages--for transport of companion animals, etc.)

Attachment D: Emergency Public Information; page 5-D-9
After Impact. Message Content.
> How/where to get help for companion and farm animals.

Attachment E: Evacuation; page 5-E-2
Some owners of companion animals will refuse to evacuate unless arrangements have been made to care for their animals.

Attachment E: Evacuation; page 5-E-5
Evacuation Coordinator
Upon arrival at the EOC:
> Assists, as appropriate, the animal care and control agency's efforts to evacuate animals at risk during catastrophic emergency situations.

Emergency Manager
> Coordinates with and assist the animal care and control agency staff to identify facilities that may be used to house evacuated animals.

Attachment E: Evacuation; page 5-E-7
Public Information Officer (PIO)
Disseminates the following types of instructional materials and information to evacuees:

> Disseminates information on appropriate actions to protect and care for companion and farm animals that are to be evacuated or left behind.

Attachment E: Evacuation; page 5-E-7

Animal Care and Control Agency

Based on information from the Evacuation Coordinator on the high-hazard areas in the jurisdiction, makes an initial estimate of the numbers and types of animals that may need to be evacuated.

Coordinates with the Evacuation Coordinator to arrange travel routes and schedules the timing for evacuation of farm animals, animals in kennels, veterinary hospitals, zoos, pet stores, animal shelters, university laboratories, etc. and wildlife (as appropriate) from the risk area.

As appropriate, mobilizes transportation vehicles (stock trailers, trucks equipped with animal cages, etc.) that may be used to evacuate the animals.

Implements evacuation by sending evacuation team(s) to load and transport the animals being evacuated.

As appropriate, dispatches search and rescue teams to look for animals left behind by their owners, stray animals, and others needing transport to a safe location.

Annex E: Evacuation; page 5-E-9

Logistics

The provisions that have been made to move from the area being evacuated those essential supplies and equipment items that are needed to sustain operations and to meet the needs of evacuees. Typical items include:

Food, carriers, leashes, etc. for animals.

Attachment F: Mass Care; page 5-F-5

General

Describes the arrangement for operation of each mass care facility. These include:

Describes the provisions that have been made to feed, shelter, and provide medical treatment for animals during large-scale disasters.

Attachment F: Mass Care; page 5-F-6

Mass Care Coordinator Upon arrival at the EOC:

Provides each Mass Care Facility Manager a listing of the location of the animal shelters that have been opened to house and care for companion animals.

Assists, as appropriate, the animal care and control agency's efforts to feed, shelter, and provide medical treatment for animals during catastrophic emergencies.

Attachment F: Mass Care; page 5-F-7
Mass Care Facility Manager

Ensures space is available for service animals that belong to people with disabilities.

Attachment F: Mass Care; page 5-F-8
If companion animals are not permitted in the facility, provides information to their owners about shelters that have been opened to house and care for animals.

Attachment F: Mass Care; page 5-F-9
Public Information Officer (PIO)

Makes public announcement about availability of mass care facilities and animal shelters and their locations.

Attachment F: Mass Care; page 5-F-10
Animal Care and Control Agency

Assesses the situation and makes a decision on the number and location of shelters that will be used to house animals. Typical facilities include the jurisdiction's animal shelter(s), veterinary hospitals, boarding kennels, pet stores, greyhound farms, and fairgrounds. Facilities for agricultural animals could include sale barns, boarding stables, race tracks, horse farms, poultry barns, dairy farms, and fairgrounds/ rodeo grounds.

Coordinates the actions needed to obtain sufficient personnel to staff animal shelters, as needed.

Ensures each animal shelter has a highly visible identity marker and sign that identifies its location.

Coordinates with the PIO to facilitate dissemination of information to the public on the location of the companion animal shelters that will be opened.

Informs the Mass Care Coordinator of the location(s) of the shelters that have been opened.

If appropriate, coordinates with the Mass Care Coordinator to place personnel in public shelters to act as a referral source for animal disaster operations.

Opens shelters and provides food, water, and medical care, as needed, for the animals in the shelter.

Keeps shelters open as long as necessary.

Ensures each shelter receives the necessary supplies to sustain itself.

When appropriate, terminates shelter operations and closes the facility.

Tab 1 to Attachment F: Nuclear Power Plant Accident; page 6-F-1-2
Resource Management
The following planning considerations should be addressed, if appropriate, in one or more appendices to a resource management annex:

Provisions for purchasing, stockpiling, or otherwise obtaining the essential stocks (food, water, medical, etc.) needed to support an extended stay (3-14 days) in shelters within the risk area or in mass care facilities.

The crops and feed that people, domesticated animals, and wildlife consume.

The livestock and milk or milk products that people consume.

Attachment G: Health and Medical; page 5-G-7
Environmental Health Officer
Coordinates with the animal care and control agency to dispose of dead animals.

Attachment G: Health and Medical; page 5-G-10
Animal Care and Control Agency

Coordinates with veterinarians and animal hospitals to arrange for services for animals as needed. These might include service, companion, or farm animals, wildlife, etc.

Coordinates with the Environmental Health Officer on the location, collection, and disposal of dead animals.

Appendix E

Learning Checks Answer Key

Unit 2 Answer/Page	Unit 3 Answer/Page	Unit 4 Answer/Page
1. True/B-2-1	1. False/B-3-1	1. True/B-4-1
2. False/B-2-2	2. True/B-3-6	2. True/B-4-7
3. True/B-2-2	3. True/B-3-7	3. False/B-4-11
4. True/B-2-4	4. False/B-3-7	4. True/B-4-14
5. False/B-2-4, B-2-7	5. True/B-3-9	5. True/B-4-17
6. False/B-2-7	6. False/B-3-11	6. False/B-4-9
7. False/B-2-7	7. True/B-3-10	7. True/B-4-12
8. True/B-2-7	8. True/B-3-11	8. B/B-4-5
9. B/B-2-2	9. A/B-3-12	9. C/B-4-3
10. C/B-2-6	10. D/B-3-13	10. A/B-4-3
Unit 5 **Answer/Page**	**Unit 6** **Answer/Page**	**Unit 7** **Answer/Page**
1. True/B-5-2	1. True/B-6-8	1. True/B-7-3
2. True/B-5-3	2. False/B-6-9	2. True/B-7-5
3. True/B-5-8	3. False/B-6-1	3. False/B-7-2
4. True/B-5-11	4. True/B-6-2	4. True/B-7-6
5. True/B-5-13	5. False/B-6-1	5. True/B-7-6
6. True/B-5-16	6. True/B-6-2	6. False/B-7-2
7. False/B-5-17	7. True/B-6-4	7. False/B-7-2
8. D/B-5-21	8. B/B-6-11	8. D/B-7-13
9. C/B-5-9, B-5-10	9. A/B-6-10	9. A/B-7-13
10. B/B-5-23	10. C/B-6-6	10. B/B-7-3

Appendix F

FEMA-Related Acronyms

ARC	American Red Cross
AVMA	American Veterinary Medical Association
CA	Cooperative Agreement
CBRA	Coastal Barrier Resources Act
CDBG	Community Development Block Grant
CDC	Centers for Disease Control and Prevention
CDRG	Catastrophic Disaster Response Group
CEM	Comprehensive Emergency Management
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
COE	Corps of Engineers
COG	Continuity of Government
CRS	Community Rating System
CSDP	Chemical Stockpile Disposal Program
CSEPP	Chemical Stockpile Emergency Preparedness Program
DAE	Disaster Assistance Employee
DCO	Defense Coordinating Officer
DFIRM	Digital Flood Insurance Rate Map
DFO	Disaster Field Office
DHO	Disaster Housing Assistance
DOD	Department of Defense
DOT	Department of Transportation

DRC	Disaster Recovery Center
DRM	Disaster Recovery Manager
DRO	Disaster Recovery Operations
DSR	Damage Survey Report
DUA	Disaster Unemployment Assistance
EAP	Emergency Action Plan
EAS	Emergency Alert System
EDA	Economic Development Act
EENET	Emergency Education NETwork
EMERS	Emergency Management Exercise Reporting System
EMI	Emergency Management Institute
EMS	Emergency Medical Services
EMT	Emergency Management Training
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
ERT	Emergency Response Team
ESF	Emergency Support Function
EST	Emergency Support Team
FCO	Federal Coordinating Officer
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FHA	Farmer's Home Administration
FIA	Federal Insurance Administration
FIRM	Federal Insurance Rate Map
FRERP	Federal Radiological Emergency Response Plan
FRP	Federal Response Plan
FRS	Field Reporting System

GAR	Governor's Authorized Representative
GIS	Geographic Information Systems
HM	Hazard Mitigation
HMRT	Hazard Mitigation Response Team
IC	Incident Commander
ICS	Incident Command System
IEMC	Integrated Emergency Management Course
IEMS	Integrated Emergency Management System
IFGP	Individual and Family Grant Program
IHMT	Interagency Hazard Mitigation Team
JIC	Joint Information Center
LEPC	Local Emergency Planning Committee
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MWEAC	Mount Weather Emergency Assistance Center
NACA	National Agricultural Chemical Association
NAWAS	National Warning System
NEP	National Earthquake Loss Reduction Program
NEPA	National Environmental Policy Act
NETC	National Emergency Training Center
NFA	National Fire Academy
NFIP	National Flood Insurance Program
NGA	National Governors' Association
NOAA	National Oceanic and Atmospheric Administration
NPSC	National Processing Services Center

NRC	Nuclear Regulatory Commission
NRT	National Response Team
NTC	National Teleregistration Center
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
PDA	Preliminary Damage Assessment
PIO	Public Information Officer
RACES	Radio Amateur Civil Emergency Services
REP	Radiological Emergency Preparedness
RERO	Radiological Emergency Response Operations
ROC	Regional Operations Center
RRT	Regional Response Team
SARA	Superfund Amendment and Reauthorization Act
SBA	Small Business Administration
SCM	Survivable Crisis Management
SCO	State Coordinating Officer
SHMO	State Hazard Mitigation Officer
SITREP	Situation Report
SLE	State and Local Exercise
SLG	State and Local Guide
SOPs	Standard Operating Procedures
SPCA	Society for the Prevention of Cruelty to Animals
USDA	U.S. Department of Agriculture
USFA	U.S. Fire Administration
US&R	Urban Search and Rescue
VMAT	Veterinary Medical Assistance Team

VOLAG	Volunteer Agency