

Danger! Danger! Everywhere! Emergency Preparedness in the West

By Terena Thomas, Hooves For The Heart, LLC Head Instructor
American Red Cross Instructor, CART Member

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.”

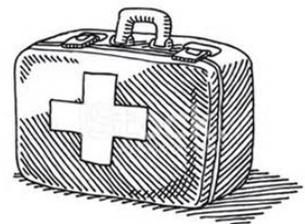
Emergency management officials and animal-care communities should work together to define plans for the care of animals and their owners in disasters. Plans should respect the concerns of animal owners and the concerns of persons that do not own animals or have medical or psychological reasons to distance 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.

Basic Disaster Preparedness Kit

A basic emergency supply kit or “Go Bag” could include the following recommended items:

- Water one gallon of water per person per day for at least three days, for drinking and sanitation. Seven days is best. Average 5 gallons min/day per horse
- Food, at least a three-day supply of non-perishable food. Seven day supply is best.
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Dust mask to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place.
- Flashlight and extra batteries
- First aid kit
- Whistle to signal for help
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities.
- Manual can opener for food
- Local maps
- Cell phone with chargers, inverter or solar charger



Additional Emergency Supplies

Once you have gathered the supplies for a basic emergency kit, you may want to consider adding the following items:

- Prescription medication and seeing glasses
- Infant formula and diapers
- Pet food and extra water for any companion animal in the barn. (cat litter?)
- Cash or traveler's checks and change

- Important Business documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container. Take pictures of these important documents and save to the cloud. You can use tools developed by Operation Hope, FEMA and Citizen Corps to help you organize your information.
 - Emergency reference material such as a first aid book.
 - Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate. Horses may need a blanket or water heater in cold weather.
 - Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
 - Household chlorine bleach and medicine dropper – When diluted, nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
 - Fire extinguisher
 - Matches in a waterproof container
 - Feminine supplies and personal hygiene items
 - Mess kits, paper cups, plates, paper towels and plastic utensils
 - Paper and pencil
- Books, games, puzzles or other activities for children

Supplies For The Animals

Water (flavor enhancers like powdered apple cider or molasses if needed)

Feed (hay, grains, mash ingredients, supplements)

Food and water containers

Equine first aid kit with Bute and Benamine in case of stress induced colic

Digital photos of your animals (showing all distinguishing marks and whorls).

Copies of ownership paperwork

Brand inspections and transportation papers

Proof of vaccinations

Paper towels

Bath towels

Halter with detachable, strong, lead rope

Hose and bucket

Salt

Poop rake

Shovel

Wheelbarrow or poop bucket

Shavings

Horse medications & supplements

Horse prescriptions

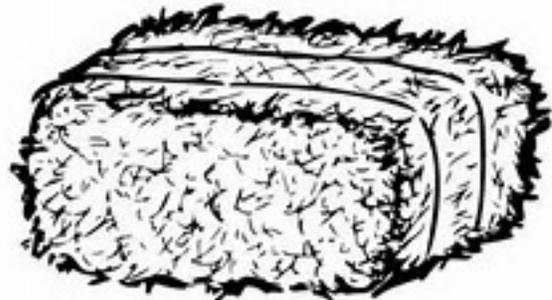
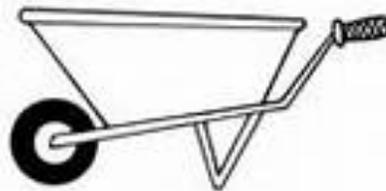
Grooming tools

Fly spray

Bleach and spray bottle

Hose

Electrical extension cord

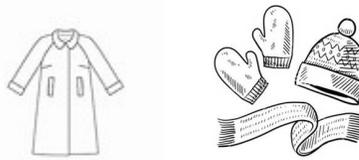


Supplies For Unique Needs

Remember the unique needs of your animals and participants when making your emergency supply kit and Business emergency plan.

If you live in a cold climate, you must think about warmth. It is possible that you will not have heat. Think about your clothing and bedding supplies. Be sure to include one complete change of clothing and shoes per person, including:

- Jacket or coat
- Long pants
- Long sleeve shirt
- Gloves & hat
- Boots and warm socks



Creating your *Business Emergency Communication Plan* starts with one simple question: “What if?” “What if something happens? Who will be responsible for all the moving parts?” “Will I be able to reach them?” “Who will secure the animals?” Will they evacuate and when?” “How will I know when they are safe?” “How can I let them know I’m OK?”

During a disaster, you will need to send and receive information regularly.

Communication networks, such as mobile phones and computers, could be unreliable during disasters, and electricity could be disrupted. Planning in advance will help ensure that all the members of your household—including children and people with disabilities and others with access and functional needs, as well as outside caregivers—know how to reach each other and where to meet up in an emergency.

Planning starts with three easy steps:

1. COLLECT.

Create a paper copy of the contact information for your organization and other important people/offices, such as medical facilities, veterinarians or service providers.

2. SHARE.

Make sure everyone carries a copy in his or her backpack, purse, or wallet. If you complete your *Business Emergency Communication Plan* online at ready.gov/make-a-plan, you can print it onto a wallet-sized card. You should also post a copy in a central location in your facility, such as your employee refrigerator or community bulletin board.

3. PRACTICE.

Have regular meetings to review and practice your plan.

Text Message IS BEST!

Text message requires far less bandwidth than a phone call. Text messages may also save and then send automatically as soon as capacity becomes available.

If you are using a mobile phone, a text message may get **TEXT** through when a phone call will not. This is because a text message requires much less bandwidth than a phone call. Text messages may also save and then send automatically as soon as capacity becomes available.

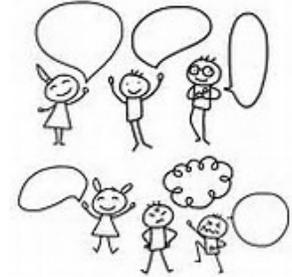
The following sections will guide you through the process to create and practice your *Business Emergency Communication Plan*.

Business Information

Write down phone numbers and email addresses for everyone in your program. Having this important information written down will help you reconnect with others in case you don't have your mobile device or computer with you or if the battery runs down. If you have a member(s) who are Deaf or hard of hearing, or who has a speech disability and uses traditional or video relay service (VRS), include information on how to connect through relay services on a landline phone, mobile device, or computer.

School, Childcare, Caregiver and Workplace Emergency Plans

Because a disaster can strike during school or work hours, you need to know their emergency response plans and how to stay informed. Discuss these plans with children, and let them know who could pick them up in an emergency. Make sure your household members with phones are signed up for alerts and warnings from their school, workplace, and/or local government. To find out more about how to sign up, see *Be Smart. Know Your Alerts and Warnings* at the end in the Resource Section. For children without mobile phones, make sure they know to follow instructions from a responsible adult, such as a teacher or principal.



The American Red Cross Ready Rating™, is a first-of-its-kind membership program designed to help businesses, organizations and schools become better prepared for emergencies. Members join this free, self-paced program and complete a 123-point self-assessment of your level of preparedness to reveal areas for improvement.

You'll learn tips and best practices so you don't feel like you're alone out there. And most importantly, members make a commitment to improve their readiness score each year – because preparedness is a continuous process and not a one-time effort.

Learn more and get started at www.readyrating.org

Out-Of-Town Contact

It is also important to identify someone outside of your community or State who can act as a central point of contact to help your household reconnect. In a disaster, it may be easier to make a long-distance phone call than to call across town because local phone lines can be jammed.

Emergency Meeting Places

Decide on safe, familiar places where your staff can go for protection or to reunite. Make sure these locations are accessible for household members with disabilities or access and functional needs. If you have pets or service animals, think about animal-friendly locations. Identify the following places:

Indoor: If you live in an area where tornadoes, hurricanes, or other high-wind storms can happen, make sure everyone knows where to go for protection. This could be a small, interior, windowless room, such as a closet or bathroom, on the lowest level of a sturdy building, or a tornado safe room or storm shelter.

In your neighborhood: This is a place in your neighborhood where your household members will meet if there is a re or other emergency and you need to leave your home. The meeting place could be a big tree, a mailbox at the end of the driveway, or a neighbor's house.

Outside of your neighborhood: This is a place where your staff will meet if a disaster happens when you're not at home and you can't get back to your home. This could be a library, community center, house of worship, or staff friend's home.

Collect Information

Outside of your town or city: Having an out-of-town meeting place can help you reunite if a disaster happens and:

- You cannot get home or to your out-of-neighborhood meeting place; or
- Your staff is not together and your community is instructed to evacuate the area.

This meeting place could be the home of a relative or staff friend. Make sure everyone knows the address of the meeting place and discuss ways you would get there.

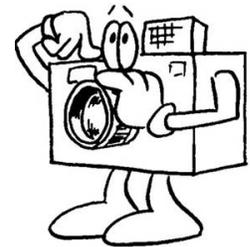
Other Important Numbers And Information

You should also write down phone numbers for emergency services, utilities, service providers, medical providers, veterinarians, insurance companies, and other services.

Make copies of your *Business Emergency Communication Plan* for each member of the household to carry in his or her wallet, backpack, or purse. Post a copy in a central place at home. Regularly check to make sure your household members are carrying their plan with them.

Enter emergency contact information on volunteers, therapists, farriers, employees, board of directors, veterinarians, (including your State Veterinarian) and fairgrounds into all important members' mobile phones or devices.

Take photos of all important documents and save them to the cloud or back up on a CD, Thumb drive or other device which is stored off site. Photograph all animal records that are important (vaccinations, health records, etc).



Store at least one emergency contact under the name “In Case of Emergency” or “ICE” for all mobile phones and devices. This will help someone identify your emergency contact if needed. Inform your emergency contact of any medical issues or other requirements you may have.

Create a group list on all mobile phones and devices of the people you would need to communicate with if there was an emergency or disaster.

Make sure all household members and your out-of-town contact know how to text if they have a mobile phone or device, or know alternative ways to communicate if they are unable to text.

Once you have completed *Business Emergency Communication Plan*, made copies for all the members of your household, and discussed it, it's time to practice!

Here are some ideas for practicing your plan:

Practice texting and calling. Have each person practice sending a text message or calling your out-of-town contact and sending a group text to your mobile phone group list.

Discuss what information you should send by text. You will want to let others know you are safe and where you are. Short messages like “I'm OK. At library” are good.

**MAKE SURE EVERYONE HAS THE INFORMATION.
NOW IT'S TIME TO PRACTICE!**

Talk about who will be the lead person to send out information about the designated meeting place for the employees and animals.

Practice gathering all volunteers and staff members at your emergency meeting places. Talk about how each person would get to the identified out-of-neighborhood and out-of-town meeting places and what they will be responsible for taking with them. Discuss all modes of transportation, such as public transportation, rail, and para-transit for all people, including those with disabilities and others with access and functional needs. Discuss who will drive hauling vehicles and what horses they are responsible for moving. Where are the animals going and is their receiving place ready? What equipment will you need to haul to manage and provide exceptional husbandry to your livestock partners. Regularly have conversations with staff, volunteers and adult family members about the plan, such as whom and how to text or call, and where to go. To show why it's important to keep phone numbers written down, challenge your people to recite important phone numbers from memory—and then ask them to think about doing this in the event of an emergency when adrenaline is surging and Cortisol is running high.

Make sure everyone, including children, knows how, where and when to call 911 for help. You should only call 911 when there is a life-threatening emergency. Review, update, and practice your *Business Emergency Communication Plan* at least once a quarter, or whenever any of your information changes.

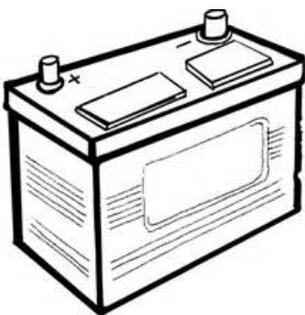
To help start the conversation or remind your staff why you are taking steps to prepare and practice, you may want to watch the 4-minute family video, *It Started Like Any Other Day* found in the References section at the end.

After you practice, talk about how it went. What worked well? What can be improved? What information, if any, needs to be updated? If you make updates, remember to print new copies of the plan for everyone. Practice for evacuations (short term and long term).

Other Important Tips For Communicating In Disasters

Text is best when using a mobile phone, but if you make a phone call, keep it brief and convey only vital information to emergency personnel and/or staff or household members. This will minimize network congestion, free up space on the network for emergency communications, and conserve battery power. Wait 10 seconds before redialing a number. If you redial too quickly, the data from the handset to the cell sites do not have enough time to clear before you've re-sent the same data. This contributes to a clogged network.

Conserve your mobile phone battery by reducing the brightness of your screen, placing your phone in airplane mode, and closing apps you do not need. Limit watching videos and playing video games to help reduce network congestion.



Keep charged batteries, a car phone charger, and a solar charger available for backup power for your mobile phone, teletypewriters (TTYs), amplified phones, and caption phones. If you charge your phone in your car, be sure the car is in a well-ventilated area (e.g., not in a closed garage) to avoid life-threatening carbon monoxide poisoning.

If driving, do not text, read texts, or make a call without a hands-free device.

Maintain a household landline and analog phone (with battery backup if it has a cordless receiver) that can be used when mobile phone service is unavailable. Those who are Deaf or hard of hearing, or who have speech disabilities and use devices and services that depend on digital technology (e.g.,

VRS, Internet Protocol [IP] Relay, or captioning) should have an analog phone (e.g., TTY, amplified phone, or caption phone) with battery backup in case Internet or mobile service is down.

If you evacuate and have a call-forwarding feature on your home phone, forward your home phone number to your mobile phone number.

Use the Internet to communicate by email, Twitter, Facebook, and other social media networks. These communication channels allow you to share information quickly with a widespread audience or to send out a note to see if loved ones are OK. The Internet can also be used for telephone calls through Voice over Internet Protocol. For those who are Deaf or hard of hearing, or who have speech disabilities, you can make calls through your IP Relay provider.

If you do not have a mobile phone, keep a prepaid phone card to use if needed during or after a disaster.

Use a pay phone if available. It may have less congestion because these phones don't rely on electricity or mobile networks. In some public places, you may be able to send a TTY that can be used by those who are Deaf or hard of hearing, or who have speech disabilities.

Biosecurity In Disasters

Table 1. Animal-health hazards of concern and their consequences during natural disasters.

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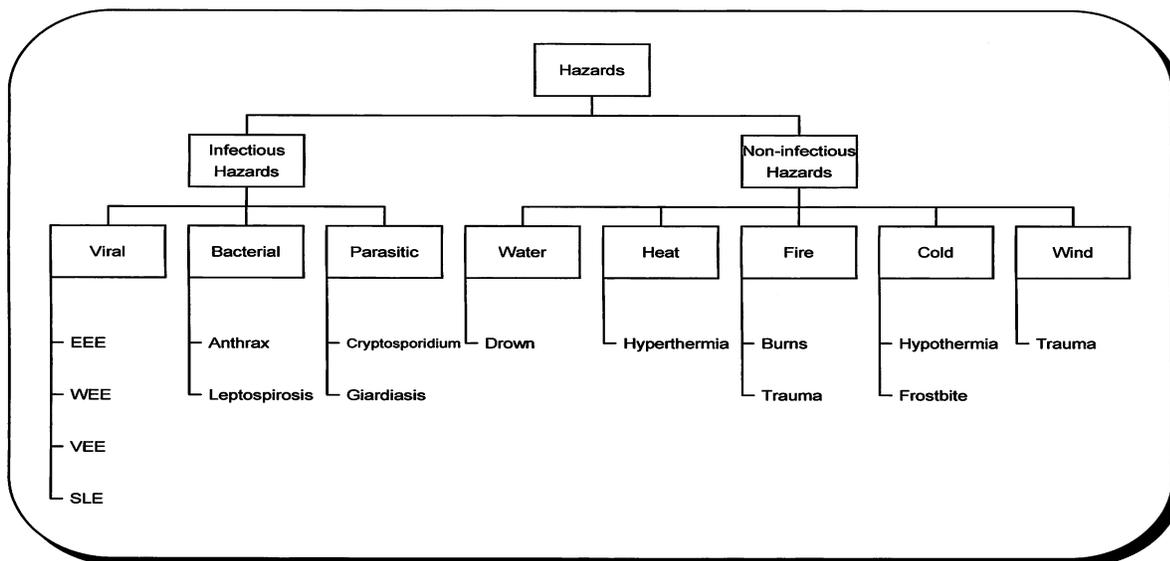


Table 2. Serogroup, taxonomy, virus, primary vector, geographic distribution, and diseases of zoonotic and non-zoonotic arboviruses that are indigenous to Canada, the United States, Central America, or South America.							
Serogroup	Family	Genus	Virus	Vector	Geographic Distribution	Disease	
Group A	Togaviridae	Alphavirus	Eastern Equine Encephalitis (EEE)	Mosquitoes	Canada, U.S.	Encephalitis, fever	
			Everglades (VEE II)	Mosquitoes	Florida	Encephalitis, fever	
			Venezuelean Equine Encephalitis (VEE)	Mosquitoes	South America, Central America	Encephalitis, fever	
			Western Equine Encephalitis (WEE)	Mosquitoes	Canada, U.S.	Encephalitis, fever	
Group B	Flaviviridae	Flavivirus	Powassan (POW)	Ticks	Canada, U.S.	Encephalitis	
			St. Louis encephalitis (SLE)	Mosquitoes	Canada, U.S.	Encephalitis, fever	
Group CAL	Bunyviridae	Bunyavirus	California encephalitis	Mosquitoes	Canada, U.S.	Encephalitis, fever	
			Jamestown Canyon	Mosquitoes	Canada, U.S.	Encephalitis, fever	
			LaCrosse (LAC)	Mosquitoes	U.S.	Encephalitis, fever	
			Snowshoe hare	Mosquitoes	Canada, U.S.	Encephalitis, fever	
CTF	Reoviridae	Coltivirus	Colorado Tick Fever (CTF)	Ticks	Canada, U.S.	Fever, myalgia	

Source: From Calisher, *Clinical Microbiology Reviews*, 1994. Revised, with permission.

Table 3. Ecological and climatic observations' during: (1) enzootic and epizootic transmission of selected arbovirus diseases that are prevalent in the U.S., Canada, Mexico, and Central America, (2) epizootic transmission of anthrax in livestock and wildlife in the U.S., Canada, and Africa, and (3) epizootic transmission of leptospirosis and cryptosporidiosis.

	Viral (i.e., Arbovirus)				Bacterial		Parasitic
	EEE	WEE	VEE	SLE	Anthrax	Leptospirosis	
Ecological Observation							
Increased annual precipitation	+		+		Livestock	Wildlife	
Increased annual ambient temperature		+	+	+			
High relative humidity (90%)		+	+		+		
Incomplete drainage-lake type hydrographic region	+						
Wooded land on the affected premises	+						
Sunlit grassy marshes, open pools of stream beds, especially in irrigated areas		+		+			
Permanent bodies of water; lowland swamps; coastlines			+				
Mid-summer to late-summer season	+	+	+		+	+	
Late summer and fall season				+			
High ambient temperature immediately preceding and during the outbreak					+	+	
A "dry period" that was followed immediately by a "wet period"					+		
A "dry period" that was <u>not</u> followed by a "wet period"					+		
A wet spring that was followed by a summer drought						+	
Poor grazing conditions					+	+	
Optimum grazing conditions						+	
Alluvial soils derived from loam and clay sediments (alkaline pH)					+		
Calcareous soils					+		
Soils with poor drainage of surface water					+		
Disruption of soils during construction projects in which earth was moved					+		

When livestock and horses have to be evacuated suddenly, emergency identification methods can be used. These include:

- Painting or etching the hooves,
- Body marking with crayon,
- Clipping phone numbers or farm initials in the hair,
- Neck banding,
- Identification tags on halters
- Glue-on numbers.



Many disasters also have distant effects on animals, e.g., debris on pastures many miles from a tornado touchdown and moldy corn following a flood can be a problem after a disaster. If you are concerned about diseases that may result from a disaster you should consult your veterinarian. If animals die or have to be euthanized, it is recommended that a post-mortem examination be performed at the State diagnostic laboratory so that insurance and legal claims can be settled should they arise. Photographs and videos can aid in documentation.

In disasters, farm animals may be forced to congregate. Horses from several farms may mix resulting in contagious diseases. Be aware that changing social structure may result in aggressive behavior leading to injury. Some measures can safeguard the health of horses and livestock in disasters — vaccinations, deworming, and Coggins tests.

Veterinarians can also instruct their clients on first aid for horses and livestock and advise on the contents and appropriate use of first aid kits.

One possible outcome of natural disasters is alteration of ecosystems that harbor pathogens for infectious diseases of animals, as well as vectors of these pathogens. One of the most common forms of natural disasters is the flooding that results from excessive rainfall. Examples of infectious diseases of animals that become of concern due to proliferation of mosquitoes during and after flooding are the arbovirus diseases such as eastern equine encephalomyelitis and western equine encephalomyelitis. Bacterial and parasitic diseases of animals that are commonly discussed in the aftermath of floods, hurricanes, droughts and similar natural disasters are leptospirosis, anthrax, botulism, cryptosporidiosis, giardia and hoof rot. Various ecological, geographical, and climatic factors, some of which have been studied more intensely than others, have been observed during outbreaks of these diseases. Each of these groups of factors may be influenced to varying degrees by natural disasters.



During natural disasters, animal workers are expected to provide a range of services to protect animal and human health. One of these services includes prevention and control of epizootic, zoonotic and food-borne diseases of animals and humans. To achieve their goals, at least a fundamental understanding of the ecology and epidemiology of potentially infectious hazards is indispensable.

Two *non-infectious* diseases of animals that are commonly discussed during natural disasters are aspiration pneumonia and injuries. Morbidity and mortality due to non-infectious diseases can be attributed to excesses of water, excesses of wind, lightning, deficiencies of water, heat extremes, fires and earthquakes. The animal health problems that may arise due to these natural disasters include drowning, hyperthermia, burns, hypothermia, and traumatic injuries.

Develop a Plan**Start building your plan now.**

Here are some suggestions you may want to consider: Keep phone lists of your key employees and customers with you, and provide copies to key staff members. If you have a voice mail system at your office, designate one remote number on which you can record messages for employees. Provide the number to all employees. Arrange for programmable call forwarding for your main business line(s). Then, if you can't get to the office, you can call in and reprogram the phones to ring elsewhere. If you may not be able to get to your business quickly after an emergency, leave keys and alarm code(s) with a trusted employee or friend who is closer.

No business should risk operating without a disaster plan.

When disasters strike agricultural communities, we should remember that not only are farms and riding programs affected, but also other small businesses, such as feed and accessory suppliers, and veterinary practices. These small, local businesses are particularly vulnerable to disasters, because the cost of disaster mitigation, insurance, and recovery is relatively higher than for large national chains. Small businesses have, on average, fewer resources to pay for recovery from disasters.

The impact of disasters on small businesses can be very damaging and occur relatively commonly. For example, every day in the U.S. over 200 fires destroy businesses, including agricultural businesses.

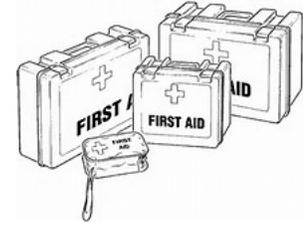
Several studies have addressed the effects of large-scale disasters on small businesses. Catastrophic disasters often have the worst impact on unprepared businesses. This compares with studies indicating that only 9.7 percent of small businesses close every year. Businesses affected by a disaster should check to see if they are eligible for Small Business Administration's Economic Injury Disaster Loan Program. Businesses with resumption plans are usually operational sooner than businesses without plans.

Of all businesses that survive for 1 year after a disaster, the small businesses are in the worst economic shape. Almost half (40 percent) of businesses affected by a disaster are out of business within a year of the disaster, and an additional 29 percent go out of business within 2 years of the disaster. These shuttered businesses were unprepared for a disaster; they had no plan or backup systems.

When you start to develop your disaster plan, consider four subjects: human resources, animal resources, physical resources and business continuity. Think about how a disaster could affect your employees, customers, animals and workplace. Think about how you could continue doing business if the area around your facility is closed or streets are impassable. Think about what you would need to serve your customers even if your facility is closed.

- Install emergency lights that turn on when the power goes out. They are inexpensive and widely available at building supply retailers.
- Back up computer data frequently throughout the business day. Keep a backup tape off site.
- Use UL-listed surge protectors and battery backup systems. They will add protection for sensitive equipment and help prevent a computer crash if the power goes out.
- Purchase a NOAA Weather Radio with a tone alert feature. Keep it on and when the warning signal sounds, listen for information about possible severe weather and protective actions to take.

- Stock a minimum supply of the goods, materials and equipment you would need for business continuity.
- Consult with your insurance agent about special precautions to take for disasters that may directly impact your business. Remember, most policies do not cover earthquake and flood damage. Protect animals & valuable property and equipment with special riders. Discuss business continuity insurance with your agent.



Keep emergency supplies handy, including—

- First aid kit
- Tools
- Flashlights with extra batteries
- Food and water for employees and customers to use during a period of unexpected confinement at your business, such as if a tanker truck over-turned nearby and authorities told everyone in the area to stay put for an extended period.

Every farm owner should have alternative accommodations planned for their animals in the event of a disaster. These contacts should be confirmed at least once per year. County extension educators often have good relationships with the owners and managers of fairgrounds, racetracks, etc. and may be consulted when identifying facilities that may be available. Be sure when selecting facilities to choose those that will not likely be affected by the same disasters you are planning for.

Consideration should be given to how large amounts of manure will be disposed — this will accumulate and pose a significant animal and human health problem.

Plans should be made for disposal of carcasses.

Major concerns for small businesses, including farms, in disasters include the following.

- Personnel
- Cash flow
- Continued income for employees
- Continued provision of quality care for animals
- Restoration of a functional business
- Changes in community infrastructure
- Customer, buyer and supplier loyalty

Many of these issues can be addressed before a disaster by obtaining adequate insurance coverage and entering into agreements with neighboring farms to share facilities and resources. In addition, farms may obtain assistance from the Small Business Administration and if the President requests special funding from congress, the Federal government. Agricultural emergency assistance funding is administered through the Secretary of Agriculture. The chairperson of this board is usually executive director of the State’s Agricultural Stabilization and Conservation Service.

Reduce Potential Damage

Prevent or reduce disaster damage in your facility by taking precautions, such as —

- Bolting tall bookcases or display cases to wall studs.
- Protecting breakable objects by securing them to a stand or shelf using hook-and-loop fasteners.

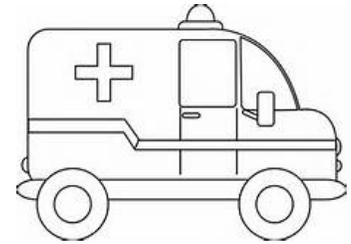
- Moving to lower shelves large objects that could fall and break or injure someone.
- If you are not asked to evacuate, survey your facility for the best location to place your animals during an emergency. Keep them away from windows. Don't take them to low locations if flooding is a concern. Don't take them to high locations if there is a fear of lightening. Each disaster has its own concerns so think through each and locate an appropriate place to shelter in.
- Installing latches to keep drawers and cabinets from flying open and dumping their contents.
- Using closed screw eyes and wire to securely attach framed pictures and mirrors to walls.
- Using plumber's tape or strap iron to wrap around a hot water heater to secure it to wall studs.
- Build and repair buildings to meet or exceed construction codes and consider ease of evacuation.
- Replace or cover glass windows with materials that will not shatter and injure animals or personnel.
- Make sure that drainage ditches have grass covering (maintain sod).
- Prevent ground-burrowing animals from damaging dams and levees.
- Avoid accumulating piles of trash that can spill onto other's property and injure animals and people.
- Store chemicals in storm-proof buildings and secured containers.
- Do not leave construction materials unsecured. In high winds, these may become projectiles.
- Drain or build levees around ponds that could flood.
- After evacuating the barn, always close the barn doors to prevent animals from running back inside the barn.
- If you are looking for your animal or your animal was left behind, let your local shelter or AH know so that rescue arrangements can be made. Be prepared to provide a photo ID of the pet, so that animal rescuers can be on the lookout.

You should also consider having a professional install —

- Flexible connectors to appliances and equipment fueled by natural gas.
- Shutters that you can close to protect windows from damage caused by debris blown by a hurricane, tornado or severe storm.
- Automatic fire sprinklers.

Protect Your Employees, Customers Animals and Business

Designate one employee from each work shift to be the safety coordinator. This person will make all decisions relating to employee and customer safety and to the safety of the animals and business itself. Safety coordinators should know how to contact the owner or operator at all times.



Everyone in your facility, volunteers and staff alike, should know how to prepare for a disaster and what to do if a disaster occurs. Contact your local Red Cross chapter for specific information about how to stay safe in a tornado, earthquake, fire, flood, hurricane or other hazard.

You may also want to get a copy of the *Emergency Management Guide for Business and Industry* from your Red Cross chapter.

Another source of useful information is *Open for Business*, a booklet developed by the Institute for Business and Home Safety and the Small Business Administration. It is available at <http://www.ibhs.org>.

Transportation accidents are one of the most common disasters that horse and livestock owners will encounter. Preventive measures include regular inspection of trailers and tow vehicles for safe operation (including checking tire pressure). Reading materials and videos are available.

Offer to help others if you can. If your program is not affected by the disaster, and you have the room, you could offer to help the community by fostering a few animals in your barn until they can be reunited with their owners. The American Humane Association's Animal Emergency Services cares for animals during disasters and reunites them with their families, often working in collaboration with local animal welfare agencies; local, state, and national emergency response teams; and national relief organizations. Volunteer Animal Emergency Services responders are specially trained to provide for animal needs in crisis situations like wildfires, floods, hurricanes, and blizzards, as well as human-caused catastrophes, such as terrorist attacks.

In Colorado, to help the most in times of need, become a volunteer animal emergency responder as part of the County Animal Response Team (CART). Consider the following:

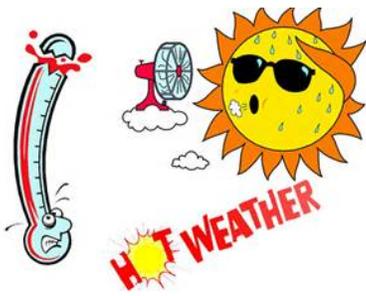
1. Pre-credentialing and training standards
 - a. These training standards will be applicable to:
 - i. Volunteers affiliated with CART directly
 - ii. Supervisory personnel from affiliated organizations that may be supervising CART volunteers during emergency situations.
 - iii. Volunteers that want to be available for mobilization to another jurisdiction through the Colorado State Animal Response Team program (CO SART) and inter-jurisdictional mutual aid agreements.
 - b. Volunteers used by individual organizations for services provided normally by those organizations (e.g. regular volunteers for an animal shelter providing animal sheltering for that organization) are not subject to these training standards.
 - c. CART basic training standards will include:
 - i. IS-100 Incident Command Systems
 - ii. IS-700 National Incident Management System
 - iii. CO CART Introductory Training: Awareness level training available through the Colorado State Animal Response Team program and affiliated CART programs
 - d. Additional training recommended for supervisory personnel includes:
 - i. IS-10a and IS-11a: FEMA Animal in Disaster independent study modules
 - ii. IS-111: Livestock in Disasters (FEMA Independent Study)
 - iii. IS-200: Incident Command System

Persons completing a CART volunteer agreement, a background check and signing a volunteer agreement with the county will be issued an CART name badge for identification as a CART responder.

Thank you for your time!

Notes

Extreme Heat



Heat kills by pushing the biological body to its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature.

Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children and those who are sick or overweight are more likely to succumb to extreme heat.

Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas. Also, asphalt and concrete store heat longer and gradually release heat at night, which can produce higher nighttime temperatures known as the “urban heat island effect.”

A heat wave is an extended period of extreme heat, and is often accompanied by high humidity. These conditions can be dangerous and even life-threatening for all animals who don’t take and receive the proper precautions.

What you should do if the weather is extremely hot:

- Listen to the NOAA Weather Radio for critical updates from the National Weather Service (NWS).
- Never leave children or pets alone in closed vehicles.
- Stay indoors as much as possible and limit exposure to the sun.
- Stay on the lowest floor out of the sunshine if air conditioning is not available.
- Postpone outdoor games and activities, including riding.
- Consider spending the warmest part of the day in public buildings such as libraries, schools, movie theaters, shopping malls, and other community facilities. Circulating air can cool the body by increasing the perspiration rate of evaporation.
- Eat well-balanced, light, and regular meals. Avoid using salt tablets unless directed to do so by a physician.
- Drink plenty of water; even if you do not feel thirsty. Avoid drinks with caffeine. Persons who have epilepsy, heart kidney, or liver disease; are on fluid-restricted diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.
- Limit intake of alcoholic beverages.
- Dress in loose-fitting, lightweight, and light-colored clothes that cover as much skin as possible. Avoid dark colors because they absorb the sun’s rays.
- Protect face and head by wearing a wide-brimmed hat.
- Avoid strenuous work during the warmest part of the day. Use a buddy system when working in extreme heat, and take frequent breaks.
- Check on family, friends, and neighbors who do not have air conditioning and who spend much of their time alone.
- Avoid extreme temperature changes.
- Check on your animals frequently to ensure that they are not suffering from the heat. Go to a designated public shelter if your home loses power during periods of extreme heat. Text “**SHELTER**” + your zip code to 43362 (4FEMA) to find nearest shelter in your area (example: **shelter 12345**).

Preparedness Actions:

- All staff members should learn to recognize heat stroke symptoms and administer appropriate first aid for animals.
- Never leave your animals in a parked car or trailer in the heat of summer. Even with the window open, they can quickly suffer heat stroke and die.
- The signs of heat stress in animals are identified below.
 - Body temperature 104 degrees Fahrenheit or above.
 - Collapse
 - Increased heart and respiratory rate.
 - Salivation
 - Depression, stupor

Mitigation Measures:

- Practice personal water conservation measures to avoid depletion of water supplies, both before and during periods of extended drought. Consider establishing alternative sources and supplies of water for your crops and animals.
- Conserve electricity. During periods of heat and drought, people use a lot of power for air conditioning. Keeping the thermostat set to 78 degrees Fahrenheit will also reduce energy use.
- For large animals, consider creating artificial shade and installing fans and swamp coolers to keep animals cool.

Response Actions:

- Keep animals in areas where they have access to shade.
- Provide animals with plenty of water. Hosing off an animal periodically will also help to cool it.
- Do not exercise animals when it is especially hot outside (e.g. lunging or riding). If you have to work with animals, provide regular rest periods. This allows the body's natural cooling system to work. Animals are often willing to please their owners to the point of endangering themselves.
- Do not dress animals with vests, blankets, and other materials that would prevent them from sweating.
- Provide caged animals with extra ventilation.
- Provide plenty of fresh, cool water for all animals to drink. Offer it in a shady place, as some species may not venture into the sun if it is very hot.
- Be sure to provide salt licks for animals that require them regularly.

Recovery Tips:

- Continue to conserve water even after the drought appears to have ended.
- If you own a farm and your crop is lost, contact the county Farmer's Home Administration Office for disaster assistance information.
- Avoid any activities that could precipitate fires. As the forest dries up, debris falls on the forest floor. Trees become prone to fire, even from the slightest spark.

Floods



Floods are one of the most common hazards in the United States, however not all floods are alike. Some floods develop slowly, while others such as flash floods, can develop in just a few minutes without visible signs of rain. Additionally, floods can be local, impacting a neighborhood or community, or very large, affecting entire river basins and multiple states.

Flash floods can occur within a few minutes or hours of excessive rainfall, a dam or levee failure, or a sudden release of water held by an ice jam. Flash floods often have a dangerous wall of roaring water carrying rocks, mud and other debris. Overland flooding, the most common type of flooding event typically occurs when waterways such as rivers or streams overflow their banks as a result of rainwater or a possible levee breach and cause flooding in surrounding areas. It can also occur when rainfall or snowmelt exceeds the capacity of underground pipes, or the capacity of streets and drains designed to carry floodwater away from urban areas.

Be aware of flood hazards no matter where you live or work, but especially if you are in low-lying areas, near water, behind a levee or downstream from a dam. Even very small streams, gullies, creeks, culverts, dry streambeds or low-lying ground that appear harmless in dry weather can flood.

During a Flood:

If a flood is likely in your area, you should:

- Listen to the radio or television for information.
- Be aware that flash flooding can occur. If there is any possibility of a flash flood, move immediately to higher ground. Do not wait for instructions to move.
- Be aware of stream, drainage channels, canyons and other areas known to flood suddenly. Flash floods can occur in these areas with or without typical warnings such as rain clouds or heavy rain.

If you must prepare to evacuate, you should do the following:

- Secure your home. If you have time, bring in outdoor furniture. Move essential items to an upper floor.
- Turn off utilities at the main switch or valves if instructed to do so. Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.

If you have to leave your home, remember these evacuation tips:

- Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. The vehicle can be swept away quickly.
- Do not camp or park your vehicle along streams, rivers or creeks, particularly during threatening conditions.

Preparedness Actions:

- Stockpile and replenish emergency building materials such as sandbags, plastic sheeting, and lumber.
- Keep your car, truck, or other vehicles fueled. If electric power is disrupted, gas station pumps may be out of operation for several days.
- Check your horse or livestock trailers to make sure they are in usable condition.
- Make staff/volunteer and animal evacuation plans.
- If you are in a flash flood area, plan several alternate routes to ensure rapid evacuation.
- If you have a large number of horses, anticipate the course floodwaters might take.
- Start moving animals in advance of any danger. Even if the evacuation turns out to have been unnecessary, at least you have practiced for the time when it might be necessary.

- Identify ways to keep animals safely confined while they are evacuated and living in a temporary setting.
- Ensure that animals are properly identified—keep a collar and identification tag on pets at all times so that if they get lost during a flood, you have a better chance of getting them back. Ideally tags should also list an out-of-state contact.
- Maintain your animal's vaccinations against rabies and tetanus.

Mitigation Measures:

- Determine if you are in the floodplain, and if so, purchase flood insurance. The National Flood Insurance Program (NFIP) is a Federal program enabling property owners to purchase flood insurance.
- If you graze horses in floodplains, be prepared to move them to the higher ground before low-lying evacuation routes become flooded.
- Consult with your State natural resources department if you plan to alter a landscape on your property in such a way that it may affect the flow of water in a flood.
- Consult with your State departments of environmental management or natural resources on how to prevent overflow of manure into local streams and rivers.
- Construct buildings for the storage of fertilizer, herbicides, pesticides, and fuels so that these have minimal chance of contaminating the environment.
- Install check valves in building sewer traps to prevent floodwater from backing up in sewer drains.

Response Actions:

Response actions to flooding vary depending on whether the flood is a flash flood or slower rising flood. With a flash flood, seconds may make the difference between life and death. If you hear a flash flood warning on the television or radio, or hear the roar of approaching waters, act immediately.

For a Flash Flood:

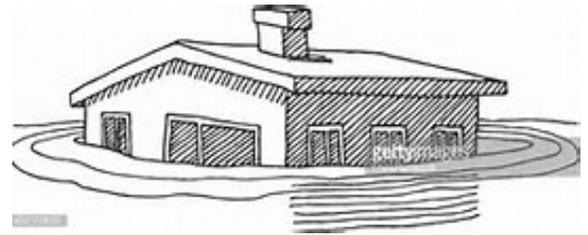
- Head for the nearest high ground without hesitation, bringing with you animals in danger.
- Even if you are not sure where to take your animals, do not leave them behind unless it would compromise your safety.

For slower rising floods:

- If you must leave an animal behind, ensure that it always has an easy escape route. Never tie an animal up if floods are pending.
- Secure all outdoor items or store them inside on upper levels.
- Move all valuable household possessions to upper levels above rising water.
- Move cars, machinery, and all livestock to higher ground.
- Check emergency food and water supplies and move them to a high-and-dry place.
- Listen to radio announcements from emergency officials. If you are told to evacuate, do so immediately. Use only those routes recommended by local authorities. Any other route could be blocked or otherwise made impassable by flooding.
- At the earliest sign of danger, start moving your animals to a safe location.
- If there is time before evacuation, turn off all utilities at the main switch. Do not touch any electrical equipment unless it is in a dry area. Always wear well-insulated rubber footwear and gloves.
- Do not attempt to drive over a flooded road; you can become stranded or trapped. If your car stalls while in flowing water, abandon it immediately, taking with you any animals (unless it would compromise your safety). Cars and trailers may only serve as traps in the face of a raging flood.
- Do not attempt to cross flowing water that is above your knees.
- If you are evacuating horses, do not ride them through swift, moving water.

Recovery Tips:

- Before horse or livestock are returned to property that has been flooded, be sure that all perimeter fences are intact and any debris has been removed.
- Before entering a building or barn:
 - Check for structural damage.
 - Check for any wildlife that may have gotten trapped inside.
 - Open the building and let it air out for several minutes to remove foul odors or escaped gas. Do not use a match or lantern as a source of light because of the possibility of a gas buildup. A battery-powered flashlight is recommended.
 - Once inside a building:
 - Check for electrical shorts and live wires. Make sure the power is turned off and do not use any electricity until an electrician has checked your system. Report broken utility lines to appropriate authorities.
 - Open all doors and windows to help dry the building.
 - Shovel out mud while it is still moist to give walls and floors an opportunity to dry.
- Consult with your veterinarian, department of agriculture, county extension educator, or State chemist to determine the safety of the feed for animals and products for human consumption. The release of hazardous materials during floods can lead to poisonings in animals that ingest or come into contact with the hazardous materials.
- Animals that have stood in contaminated flood water will be at increased risk and may develop infections of the hooves and skin (dermatitis).
- Do not use food or bedding that has come in contact with floodwaters. Contamination of animal feed can be toxic to animals and humans who consumer the meat or milk of cattle that ingest these fungal toxins.
- Do not give animals tap water until it has been boiled or determined safe. Wells should be flushed out and the water tested before drinking.
- In a barn, empty any water containers that contain floodwater, and be sure to clean them with diluted chlorine bleach or some other type of disinfectant before they are used again.



Landslide and Mudflow Readiness



If you live in an area where landslides or mudflows can occur, and you notice any signs of slope failure, be prepared to evacuate your home, barn, and stables. Possible signs of slope failure include:

- Doors or windows sticking or jamming for the first time
- New cracks appearing in plaster, tile, brick, or foundations
- Outside walls, walks, or stairs, beginning to pull away from the building
- Slowly developing, widening cracks appearing on the ground or paved areas such as streets or driveways
- Underground utility lines breaking
- Fences, retaining walls, utility poles, or trees tilting or moving
- Water or bulging ground appearing at the base of a slope

Mitigation Measures:

Before buying land or building on any property, check with the county land commissioner or the local office of the U.S. Geological Survey for ground composition, drainage, and stability. Surveys of land that may be susceptible to landslides should include grazing land.

Practical things you can do on your property are:

- Plant ground cover slopes, or build retaining walls.
- Reinforce the foundation and walls of your home and barn.
- Install flexible rather than stiff pipe fittings to avoid gas or water leaks in the event of a landslide or mudflow.
- Construct channels or reinforced masonry walls to direct the mudflows around your home, buildings, or barns. Clear obstructions from waterways.

Mudflow is covered by flood insurance policies from the National Flood Insurance Program (NFIP). Buy flood insurance through your local property agent.

Response Actions:

Several actions can be taken to ensure a safer and more effective response to a landslide or mudflow.

- If you are warned of an impending landslide or mudflow, evacuate to stable ground. Do not leave your animals behind. However, do not let the movement of animals delay your own evacuation endangering your safety.
- If you are inside a building during a landslide, stay inside and get under a desk, table or other piece of sturdy furniture.
- If you are outside and cannot get into a sturdy building while scattered rocks and debris tumble toward you, curl into a tight ball and protect your head.
- If you are in a valley, once you hear rumbling from upstream or feel the ground tremble – leave. These may be signs that indicate that a mudflow is coming your way. Do not try to outrun a landslide; instead, move at right angles to the direction of flow.



Radiation

Preparedness Actions:

The following actions will help prepare you to respond to a radiation hazard incident:

- Determine if there are any nuclear facilities in your area and what their emergency plans are.
- Know the siren alerts and situations under which they are activated. The emergency alert system gives specific directions for actions, announcements describing the incident at the nuclear facility, evacuation routes, emergency shelter locations, and other actions to be taken.
- Plan and practice evacuation routes.
- Know where the emergency shelters for your area are located to prevent searching at the time of the incident. (Shelters are also called congregated care centers or mass care centers). Shelters may not take pets so having a pre-arranged place to take them is important and will reduce concern for animals left in jeopardy.
- Make prior arrangement for the evacuation and protection of horses and livestock. If there is not time to evacuate animals, a barn, thick grove of trees, or trench silo might shelter them against radioactive fallout.

Mitigation Measures:

Mitigation for radiological incidents includes providing adequate shelter on the premises, and protective covers for feed and water resources.

Response Actions:

- If the sirens in the area are activated:
 - Listen on the radio or television to the designated emergency alert station
 - Follow the directions closely and as soon as possible
 - Follow local instructions when you evacuate
 - Close up the house and leave quickly
- The preferred protective action for people is evacuation, but in some limited circumstances sheltering in place may be recommended.
- Note that recommendations for livestock are usually made before a recommendation is made for people. This protects people who need to carry out actions to protect the animals. The State agriculture department and U.S. Department of Agriculture provide information on the radiation risks to livestock.
- When animals are sheltered they should be fed only stored, covered feed and water that is protected from radioactive fallout. If animals are left outside and become exposed to radioactive material, a veterinarian should evaluate the animals as soon as safety permits.
- Controlling fallout onto water and feed supplies may be difficult. Because most radioactive fallout particles are heavier than water, in bodies of water with little or no turbulence the surface water troughs can be covered temporarily to protect the water from immediate fallout. Rolls of plastic sheeting can be stored for this purpose.

Recovery Tips:

- Before anyone is permitted to re-enter the area, careful monitoring will ensure the safety of residents wanting to return.
- Re-entry might be permitted under supervision to care for animals left behind.

Severe Weather



Every year, thousands of people are impacted by severe weather threats such as tornadoes and severe thunderstorms

Every state in the U.S. has experienced tornadoes and severe weather, and although some more than others, everyone is at risk. You can take steps to prepare for when severe weather hazards in your area, your vulnerability, and what actions you should take can save your life and others.

The following are things you can do to protect yourself, your volunteers & staff, and your property during severe weather:

- Keep an eye on the sky. Look for darkening skies, flashes of light or increasing wind. Listen for the sound of thunder. If you can hear thunder, you are close enough to be struck by lightning.
- Blowing debris or the sound of an approaching tornado may alert you. Tornado danger signs including dark, almost greenish sky; large hail; a large, dark, low-lying cloud or a loud roar, similar to a freight train.
- Heed shelter or evacuation requests made by officials or announcements on radio/television.
- Gather volunteers & staff members, bring pets indoors, and have your emergency supply kit ready.
- Close outside doors and window blinds, shades or curtains. Stay away from doors, windows and exterior walls. Stay in the shelter location until the danger has passed.
- During lightning, do not use wired telephones, touch electrical appliances, or use running water. Cordless or cellular telephones are safe to use.
- Remember the 30/30 Lightning Safety Rule. Go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.
- If it has been raining hard for several hours, or steadily raining for several days, be alert to the possibility of a flood.
- Do not walk through flowing water. Drowning is the number one cause of flood deaths. Six inches of swiftly moving water can knock you off your feet.
- Stay indoors travel to only absolutely necessary trips. Listen to radio/television for updates.

Thunderstorms and Lightning



All thunderstorms are dangerous. Every thunderstorm produces lightning. While lightning fatalities have decreased over the past 30 years, lightning continues to be one of the top three storm-related killers in the United States.

Other associated dangers of thunderstorms include tornadoes, strong winds, hail, and flash flooding. Flash flooding is responsible for more fatalities – more than 140 annually – than any other thunderstorm-associated hazard. Dry thunderstorms that do not produce rain that reaches the ground are most prevalent in the western United States. Falling raindrops evaporate, but lightning can still reach the ground and can start wildfires.

During Thunderstorms and Lightning:

If a thunderstorm and lightning are occurring in your area, you should:

- Use your battery-operated NOAA Weather Radio for updates from local officials.
- Avoid contact with corded phones and devices including those plugged into electric for recharging. Cordless and wireless phones not connected to wall outlets are OK to use.
- Avoid contact with electrical equipment or cords. Unplug appliances and other electrical items such as computers and turn off air conditioners. Power surges from lightning can cause serious damage.
- Avoid contact with plumbing. Do not wash your hands, do not take a shower, do not wash dishes, and do not do laundry. Plumbing and bathroom fixtures can conduct electricity.
- Stay away from windows and doors, and stay off porches.
- Do not lie on concrete floors and do not lean against concrete walls.
- Avoid natural lightning rods such as tall, isolated trees in open areas.
- Avoid hilltops, open fields, the beach or a boat on the water.
- Take shelter in a sturdy building. Avoid isolated sheds or other small structures in open areas.
- Avoid contact with anything metal—tractors, farm equipment, motorcycles, golf carts and bicycles.
- If you are driving, try to safely exit the roadway and park. Stay in the vehicle and turn on the emergency flashers until the heavy rain ends. Avoid touching metal or other surfaces that conduct electricity in and outside the vehicle.

Preparedness Actions:

- If you plan to be outdoors or your animals are kept outside, check the latest weather forecast and keep an eye on the sky.
- Designate a safe area in or near your facility to shelter your staff/volunteers and animals in a severe thunderstorm. Teach volunteers/staff members what to do in a storm if they are in the facility, outside, or in a car, including relocating animals to safe locations.
- Evacuate from a manufactured (mobile) home with your animals to a safe location.
- If you have animals that get nervous and pose a safety risk in thunderstorms, contact your veterinarian for advice on training and/or medication.
- Farm owners should consult with their local fire department on how to fireproof their stables. This also familiarizes farm owners and local firefighters with one another. This familiarity is helpful in the event of an emergency. Knowing where a farm is located, how to access facilities, how many animals are there, and where large volumes of water are available can make the difference when firefighters are responding.

Mitigation Measures:

- Install lightning suppression systems on all high-risk buildings, including those where animals are kept.
- Insure crops against storm damage loss through the Federal Crop Insurance Corporation of the U.S.
- Because lightning strikes can cause fire, install appropriate sprinkler systems and smoke detectors.

- If you function from a manufactured (mobile) home, securely tie it to a solid foundation or anchors to keep the wind from shifting it or turning it over.
- Build fences around single trees in pastures where horses or livestock graze so they will not congregate under these trees during storms.

Response Actions:

In the event of a severe thunderstorm warning:

- Get inside a storm shelter, home, or large building. Avoid using the telephone except for emergencies, and stay away from windows.
- Avoid standing under a natural lightning rod such as tall, isolated trees in an open area.
- Keep yourself and any animals away from open water, such as a lake, pond or river.
- Keep yourself and any animals away from metal objects that could carry electricity, including:
 - Tractors and other metal farm equipment.
 - Motorcycles, scooters, golf carts, and bicycles.
 - Wire fences and clotheslines.
 - Metal pipes and rails.
 - Umbrellas and golf clubs.
- Move yourself and any animals to a low place such as a ravine or valley but remain alert for flash floods.
- If you feel your hair stand on end (which shows that lightning is about to strike), stand on the tip of your toes and curl your body into a tight ball. Ideally you want to be as low as possible with as little contact with the ground as possible. Do not lie flat.
- A person or animal struck by lightning will receive a severe electrical shock and may be burned. They will carry no electrical charge and can be safely handled. Give first aid and get emergency medical assistance immediately.
- Victims who appear only stunned or otherwise unhurt may also need appropriate medical attention. Check for burns in people next to metal buckles and jewelry. In animals check areas around halters and collars.

Recovery Tips:

After one storm subsides, be certain there are no more storms approaching before resuming normal activity.

- Make sure that any animal enclosures are secure before placing animals in them.
- In pasture areas, remove any debris that might injure animals or that animals may accidentally eat.
- Provide fresh feed for animals; many will refuse to eat waterlogged feed and minerals.
- If your farm has sustained damage, have the damage assessed as required by your property insurance company.
- Clean up and repair damage as soon as authorized by your insurer.



Tornadoes

During violent weather, stay tuned to a local television or radio station for tornado reports. Tornadoes can develop during severe thunderstorms and hurricanes. If a storm shelter or basement is not available, follow the listed guidelines when preparing for a tornado hazard.

- Plan to find shelter under heavy furniture or mattresses near a ground floor, inside wall of your facility.
- Confine small animals and provide them with a safe area.
- When a watch is issued, turn your horses and other livestock out to an open pasture to avoid injuries from building collapse. Try to turn animals out into areas where they will not be harmed by flying debris. This would be a low lying area where animals can choose to lie down to protect themselves.
- Know the location of the designated shelter if you live where tornadoes are frequent. When you travel with your animals keep a leash or a halter and lead rope available in case you need to vacate the vehicle during a tornado.
- Plan to evacuate your facility if it is a manufactured home. Take pets and animals with you if possible, even if you don't know where to take them, do not leave them behind.

Mitigation Measures:

Build tornado shelters and implement policies that provide sheltering for pets when there is a pending tornado or other disaster. Tornado shelters are safest if they are underground- a storm cellar or basement away from windows offers the best protection.

Follow relevant building code practices such as use of wind resistant design.

Replace windows in barns with materials that will not shatter and cut animals or people when broken.

Store or secure any loose materials including strapping. Label hazardous material such as propane or heating oil.

Response Actions:

- If you have a storm cellar or shelter, go to it immediately with your staff, client and companion animals. If no shelter is available, go to a basement and get under a heavy workbench or stairs (unless they are metal stairs).
- If your farm has no basement, stay in the center of your strongest building on ground floor away from windows and outside walls. Take cover under solid furniture or mattresses. Protect your head.
- If you find yourself in a manufactured homes or a vehicle, leave and take shelter in a substantial structure. Take your animals with you. If there is no shelter, lie flat in the nearest ditch or ravine with your hands shielding your head.
- Do not drive. If you are driving and spot a tornado, get out of your car and go into a nearby building or ditch. Take your animals with you. Protect your head and stay low to the ground.
- After a tornado passes, stay tuned to the local radio or television station to get an all-clear signal before leaving your shelter. Sometimes more than one tornado will develop during a violent storm.

Recovery Tips:

After the tornado passes, be alert to additional hazards, including down power lines. Consult with your veterinarian if you are concerned about the health of your animal. Consult you agricultural department, county extension educator or State Chemist if you are concerned about the safety of your feed pastures.

Re-enter buildings with extreme caution.

Be alert to fire hazards such as broken electrical wires or damaged electrical equipment, gas or oil leaks, other hazardous materials or smoldering piles of wet hay or feed. Report downed utility lines to appropriate authorities.

Do not use food that may have been contaminated. This includes any food for animals. If there is a boil water order in effect, continue to take this precaution for you, your staff, volunteers and animals, until officials tell you the tap water has been determined to be safe to drink again.

Keep animals safely confined until the area has been cleared of debris.

Wildfires



More and more people are making their homes in woodland settings – in or near forests, rural areas, or remote mountain sites. There, homeowners enjoy the natural beauty of the environment but face the very real danger of wildfire.

Every year across our Nation, some homes survive – while others do not – after a major wildfire. Those that survive almost always do so because their owners had prepared for the eventuality of fire, which is an inescapable force of nature in fire-prone wild land areas. Said in another way – if it’s predictable, it’s preventable!

Wildfires often begin unnoticed. These fires are usually triggered by lightning or accidents. They spread quickly, igniting brush, trees, and homes. Reduce your risk by preparing now – before wildfire strikes. Meet with your volunteers/staff to decide what to do and where to go if wildfires threaten your area. Follow the steps listed below to protect your people, home, and property.

After a Wildfire:

The following are guidelines for different circumstances in the period following a fire:

- Go to a designated public shelter if you have been told to evacuate or you feel it is unsafe to remain in your home. Text “**SHELTER**” + your zip code to **43362** (4FEMA) to find the nearest shelter in your area (example: **shelter 12345**).
- If you are with burn victims, or are a burn victim yourself, call 9-1-1 or seek help immediately; cool and cover burns to reduce chance of further injury or infection.
- If you remained at home, check the roof immediately after the fire danger has passed. Put out any roof fires, sparks, or embers. Check the attic for hidden burning sparks.
- For several hours after the fire, maintain a “fire watch.” Re-check for smoke and sparks throughout the house.
- If you have evacuated, do not enter your home until fire officials say it is safe.
- If a building inspector has placed a color-coded sign on the home, do not enter until you get more information, advice, and instructions about what the sign means and whether it is safe to enter your home.
- If you must leave your home because a building inspector says the building is unsafe, ask someone you trust to watch the property during your absence.
- Use caution when entering burned areas as hazards may still exist, including hot spots, which can flare up without warning.
- If you detect heat or smoke when entering a damaged building, evacuate immediately.
- If you have a safe or strong box, do not try to open it. It can hold intense heat for several hours. If the door is opened before the box has cooled, the contents could burst into flames.
- Avoid damaged or fallen power lines, poles and downed wires.
- Watch for ash pits and mark them for safety – warn employees, volunteers, clients and neighbors to keep clear of the pits also.
- Watch animals closely and keep them under your direct control. Hidden embers and hot spots could burn your pets’ paws or hooves.
- Follow public health guidance on safe cleanup of fire ash and safe use of masks.
- Wet debris down to minimize breathing dust particles.
- Wear leather gloves and heavy soled shoes to protect hands and feet.
- Cleaning products, paint, batteries, and damaged fuel containers need to be disposed of properly to avoid risk.

- Discard any food that has been exposed to heat, smoke, or soot.
- Do **NOT** use water that you think may be contaminated to wash dishes, brush teeth, prepare food, wash hands, make ice, or make baby formula.
- Remain calm. Pace yourself. You may find yourself in the position of taking charge of other people. Listen carefully to what people are telling you, and deal patiently with urgent situations first.

Preparedness Actions:

- Have fire tools handy at your home and in your barn: a ladder, garden hoses, fire extinguishers, gas-operated water pumps, shovels, rakes, and buckets.
- Purchase cotton rope or leather halters for horses and livestock because nylon halters can melt when they heat up in a fire. This may lead to deep burn wounds on the animal.
- Keep your horses' tetanus vaccinations current.
- Electrical wiring of barns and stables should meet appropriate safety standards and be installed by qualified electricians. Professional advice is available to help with these.
- The State department of building and fire safety and most local fire departments provide low-cost inspections and recommendations on fire safety for properties. The recommendations are detailed and will provide the highest standards by which to prevent fires.

Mitigation Measures:

- Learn to recognize dangerous fire conditions and consult with your local fire department on how to improve the safety of your house and barns.
- Use only fire-resistant materials on the exterior of your home or barn, including roof, siding, decking, and trim.
- Clear leaves and other vegetation, including dead brush, from around your house or barn to serve as a fire break. The minimum distance for a firebreak varies based on what types of trees, the surrounding landscape slope, and the construction of buildings. You should consult with your local fire department or branch of Department of Forestry to determine what is best for your property.
- Install sprinkler systems for buildings on your property, and lawn sprinkler systems outdoors.
- When constructing pools and ponds, make them accessible to fire equipment – they may serve as a source of water for fighting wildfires.
- Have hoses that are long enough to reach all parts of your building.
- Use fire carefully and wisely so that you do not cause a wildfire.
- Keep your chimney clean and install a spark arrestor.
- Avoid open burning during dry weather.
- Store firewood away from your home and barns.
- Store hay, sawdust, or straw in a building separate from where animals are housed. This is especially important during the summer when freshly cured hay can suddenly ignite from spontaneous combustion.
- Store gas and other hazardous materials in separate buildings from animals.
- Be extremely careful with open flame when shoeing horses or welding.
- Teach all personnel working with animals where the fire extinguishers are and how to use them. Practice a fire drill every month throughout the fire season.
- Implement and enforce non-smoking policies on your property.

Response Actions:

- Wet down roofs and other surfaces that might be damaged by fire. Be sure that your efforts do not jeopardize the water supply and pressure needed by firefighters.
- If officials evacuate your area, leave immediately. Barn animals should be leashed/crated and taken with you.

If you are evacuating horses when the fire is close, it may help to blindfold them.

If there is time:

1. Place a piece of cloth over the horse's nostrils to reduce smoke inhalation.
2. Wet the horses' tails and manes.
3. Remove blankets.

If you are unable to take livestock with you, let them out of the barn and close all the doors. A horse may run back into a burning barn if it gets frightened.

- Turn off any power and gas.
- Disconnect electrical fences.

Recovery Tips:

- Monitor all animals exposed to fire for smoke inhalation pneumonia, the most common cause of fire-related death. Consult a veterinarian for any burn injuries.
- Check any areas where animals and people will be for dangerous debris. Galvanized metal heated during a fire may be coated with toxic residues. If this occurs to your pasture fences, they need to be cleaned before any animals come in contact with them.
- Don't allow animals into areas with trees. They can be very unstable, and may suddenly fall over.
- Do not tie animals to burned trees.
- Consult with your insurance agent and have damages assessed as soon as possible. Take pictures or a video of damages.
- Replant burned forests quickly and efficiently to reduce the soil erosion. Ask your State forestry commission for guidelines. Landslides, mudflows, and floods can follow wildfires due to vegetation damage.



Winter Storms and Extreme Cold

While the danger from winter weather varies across the country, nearly all Americans, regardless of where they live, are likely to face some type of severe winter weather at some point in their lives. Winter storms can range from a moderate snow over a few hours to a blizzard with blinding, wind-driven snow that lasts for several days. Many winter storms are accompanied by dangerously low temperatures and sometimes by strong winds, icing, sleet, and freezing rain.

One of the primary concerns is the winter weather's ability to knock out heat, power and communication services to your facility or office, sometimes for days at a time. Heavy snowfall and extreme cold can immobilize an entire region.

The National Weather Service refers to winter storms as the "Deceptive Killers" because most deaths are indirectly related to the storm. Instead, people die in traffic accidents on icy roads and of hypothermia from prolonged exposure to cold. It is important to be prepared for winter weather before it strikes.

During Winter Storms and Extreme Cold:

- Stay indoors during the storm.
- Walk carefully on snowy, icy walkways.
- Avoid overexertion when shoveling snow. Overexertion can bring on a heart attack - a major cause of death in the winter. If you must shovel snow, stretch before going outside.
- Keep dry. Change wet clothing frequently to prevent a loss of body heat. Wet clothing loses all of its insulating value and transmits heat rapidly.
- Watch for signs of frostbite. These include loss of feeling and white or pale appearance in extremities such as fingers, toes, ear lobes, and the tip of the nose. If symptoms are detected, get medical help immediately.
- Watch for signs of hypothermia. These include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion. If symptoms of hypothermia are detected, get the victim to a warm location, remove wet clothing, warm the center of the body first and give warm, non-alcoholic beverages if the victim is conscious. Get medical help as soon as possible.
- Drive only if it is absolutely necessary. If you must drive: travel in the day; don't travel alone; keep others informed of your schedule; stay on main roads and avoid back road shortcuts.
- Let someone know your destination, your route, and when you expect to arrive. If your car gets stuck along the way, help can be sent along your predetermined route.
- If the pipes freeze, remove any insulation or layers of newspapers and wrap pipes in rags. Completely open all faucets and pour hot water over the pipes, starting where they were most exposed to the cold (or where the cold was most likely to penetrate).
- Maintain ventilation when using kerosene heaters to avoid build-up of toxic fumes. Refuel kerosene heaters outside and keep them at least three feet from flammable objects.
- Conserve fuel, if necessary, by keeping your offices cooler than normal. Temporarily close off heat to some rooms.
- If you will be going away during cold weather, leave the heat on in your facility, set to a temperature no lower than 55 degrees Fahrenheit.

Preparedness Actions:

- Keep informed of current weather conditions in your area.
- Store adequate amounts of fuel and extra feed before the severe weather starts.

- Be prepared for isolation at home, particularly if you live in a rural area. It is highly possible that a severe winter storm could isolate you for 1 to 2 weeks.
- If possible, insulate any buildings used to house animals. Dog houses should be built to withstand extreme cold – putting straw inside will provide added protection. Under extreme conditions, animals should be housed inside. Avoid leaving animals to rest on hard surfaces that are not insulated (e.g., garage floors).
- Have fuel and a safe type of emergency heating equipment available in case of power failures that would shut down standard furnaces - a camp stove with fuel or a supply of wood or coal for your fireplace could be used. Be prepared to keep at least one room of your facility warm enough to live in for at least a week or two.
- Be sure that all volunteers & staff members know how to use your emergency heating and lighting equipment. Proper ventilation in homes and barns is essential. Never use fuel in equipment that was not designed for that fuel. Burning charcoal indoors will give off deadly carbon monoxide. If you are trying to heat a barn, use something with a safely contained heating element. Do not place it near hay or any other combustible materials or leave a heater unattended in the presence of animals. Keep fire extinguishers nearby.
- Keep simple tools and other equipment to fight a small fire easily accessible. The chance of fire may increase when wiring and ventilation are inadequate. Winter storms may interrupt fire department services.
- Only keep animals outdoors that have had sufficient time to acclimate to the cold weather. Provide extra feed and wind breaks for any animals kept outdoors.
- Keep your car winterized with antifreeze, but use it in a safe manner. Carry a winter care kit that includes food water, a windshield scraper, a flashlight with extra batteries, a tow chain or rope, a shovel, tire chains, a blanket, a bag of sand, a fluorescent distress flag, and an emergency flare. If you have to travel, keep a supply of high-energy foods, candles, and matches with you. Keep extra warm clothing and blankets in the car. If you routinely take your dog in the car, be sure to keep a leash in the car.
- Consider making a windbreak for animals that live outdoors.
 - Porous fences of 80 percent density offer the best wind protection for about 75 to 100 feet downwind.
 - Solid fences provide the best snow barrier, because 90 percent of drifting snow moves within one foot of the ground.
 - Buildings should be separated by least 30 to 50 feet to prevent snowdrifts developing between them.
- Move livestock herds in close to ranch buildings and feed stores. It may initially be impossible to move feed to livestock if they are too far out.

Mitigation Measures:

- Construct barns to withstand typical snow accumulations in your area.
- Purchase a flood insurance policy to cover possible flood damage that may occur during spring thaw.

Response Actions:

- Note that cold weather itself, without any physical exertion, puts extra strain on your heart. Strenuous physical activity in cold weather such as shoveling snow, pushing a car, or even walking fast or far through deep snow can cause serious fatal results.
- Avoid all unnecessary trips. If you are at home when a winter storm strikes, plan to stay there. Keep all domestic animals inside if possible. If they must be outdoors, be sure to provide them proper sheltering to keep them warm and dry.
- If you must be outdoors, wear several layers of loose-fitting, lightweight, protective clothing rather than a single layer of thick clothing. Mittens are warmer than gloves. Hoods should be worn to protect your head and face. Cover your mouth to protect your lungs from the extremely cold air.

- If you are traveling and your car breaks down or if you become lost, decide what is the safest and best thing to do and do it slowly and carefully.
- If you are stuck on a well-traveled road:
 - Display a trouble signal.
 - Turn on your flashing hazard lights.
 - Raise the hood of your car, or hang a bright cloth from the antenna or car window.
 - Stay in your car and wait for help.
- While in your car awaiting assistance, take the following precautions:
 - If you run your engine to keep warm, remember to keep snow away from the exhaust pipe.
 - Keep a window open slightly to provide proper ventilation and protection from carbon monoxide poisoning.
 - Do not let everyone in the car sleep at the same time.
 - At night, turn on the inside dome light so work and rescue crews can spot you.
- Do not leave your car to search for assistance unless you are absolutely certain you can find help within 100 yards of your car. It is very easy to become disoriented and lost during a severe storm. If you have animals in the car, leave them in the car while you go get help.

Recovery Tips:

If the storm lasts more than a couple days or is accompanied by high winds, there is an increased possibility of utility failures and interruption of services. This can lead to extreme hardship and even death from extended exposure to cold temperatures.

Animals that live outside require additional feed and owners must make sure that the animals have water available. Although some livestock and horses will eat snow and ice in the winter as a source water, this varies among animals and cannot be relied upon for all animals.

Use the following list of suggestions as you recover from a winter storm.

- After the storm, check on your neighbors and their animals. Be sure they have proper heating and sufficient supplies to get them through the emergency.
- Check roofs of your house and barns for damage from heavy snow. Remove the snow to prevent the roof from collapsing.
- Avoid overexertion while clearing snow by working slowly and taking frequent breaks, particularly if you become dizzy or tired.
- Check and replenish emergency provisions.

Stranded in a Vehicle

If a blizzard traps you in your car:

- Pull off the highway. Turn on hazard lights and hand a distress flag from radio antenna or window.
- Remain in your vehicle where rescuers are most likely to find you. Do not set out on foot unless you can see a building close by where you know you can take shelter. Be careful; distances are distorted by blowing snow. A building may seem close, but too far to walk to in deep snow.
- Run the engine and heater about 10 minutes each hour to keep warm. When the engine is running, open a downwind window slightly for ventilation and periodically clear snow from the exhaust pipe. This will protect you from possible carbon monoxide poisoning.
- Exercise to maintain body heat, but avoid overexertion. In extreme cold, use road maps, seat covers, and floor mats for insulation. Huddle with passengers and use you coat for a blanket.
- Take turns sleeping. One person should be awake at all times to look for rescue crews.
- Eat regularly and drink ample fluids to avoid dehydration, but avoid caffeine and alcohol.
- Be careful not to waste battery power. Balance electrical energy needs – the use of lights, heat, and radio – with supply.
- Turn on the inside light at night so work crews or rescuers can see you.
- If stranded in a remote area, stomp large block letters in an open area spelling out HELP or SOS and line with rocks or tree limbs to attract the attention of rescue personnel who may be surveying the area by airplane.

Leave the car and proceed on foot – if necessary – once the blizzard passes.



Types of Assistance Available	
Where to Apply for Assistance	USDA Offices Indian Tribal Help – Bureau of Indian Affairs (BIA)
Local Assistance Available Without a Major Determination of Disaster	
Animal Diseases and Plant Pest Controls	Animal and Plant Health Inspection Service (APHIS)
Disaster Advice	Cooperative Extension Service (ES)
Livestock and Wildlife Feeding, Production, and Conservation Practices	Farm Service Agency (FSA) Commodity Credit Corporation (CCC)
Food Assistance	Food and Nutrition Service (FNS)
Food Safety	Food Safety and Inspection Service (FSIS)
Protection of Forests and Rangelands	Forest Service (FS)
Crop Insurance	Risk Management Agency (RMA)
Rural Development Assistance	Rural Business Service (RBS)
Rural Housing Service (RHS)	Rural Utilities Service (RUS)
Land Protection	Natural Resources Conservation Service (NRCS)
Other Aid	
Assistance Available in Areas Designated as Natural Disaster Areas by the Secretary of Agriculture	
Emergency Loans	Farm Service Agency
USDA Assistance Available Under a Presidential Disaster Declaration	
Emergency Loans	Farm Service Agency
Disaster Food Assistance	Food and Nutrition Service

Resources

<http://www.sba.gov>

www.weather.gov

www.noaa.gov

<https://www.ready.gov>

<https://www.ready.gov/are-you-ready-guide>

<http://www.fema.gov>

http://www.fema.gov/emergency/nims/mutual_aid

www.dola.colorado.gov/dem/plans/plans.htm

www.americanhumane.org/animals/programs/emergency-services

Animal Management in Disasters by Sebastian Heath

Agro-Security National Textbook By Georgia: Corey Brown et al

It Started Like Any Other Day, www.youtube.com/watch?v=w_omgt3MEBs

Be Smart. Know Your Alerts and Warnings at <http://1.usa.gov/1BDloze>

Business Emergency Communication Plan online at ready.gov/make-a-plan

Tips for communicating in an emergency.

<http://transition.fcc.gov/pshs/emergency-information/tips.html>

<http://www.redcross.org>

<http://www.aphis.usda.gov/vs/ep/functions.html>

IS-111.A Livestock in Disasters - FEMA

training.fema.gov/is/courseoverview.aspx?code=is-111.a

www.readyrating.org

Emergency Management Guide for Business and Industry from your Red Cross chapter.

Guide to Business Continuity Planning CD-ROM. From the American Red Cross

Open for Business, Institute for Business and Home Safety and the Small Business Administration. It is available at <http://www.ibhs.org>