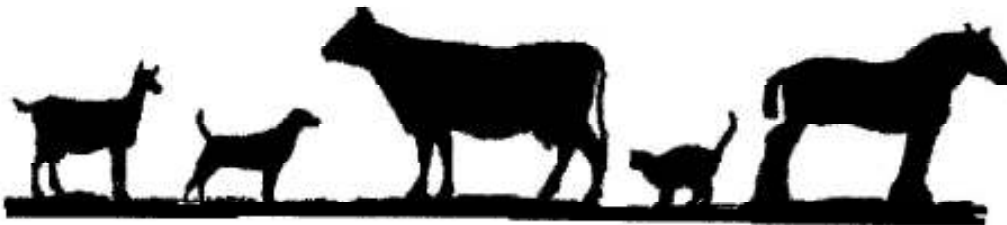


SPARTAN COUNTY **ANIMAL EMERGENCY RESPONSE PLAN**

October 2006



Developed by **Spartan** County Emergency Management
In cooperation with
The Local Animal Response Group

Version 1.2



To: County Emergency Managers & Other Users of this Plan

The Spartan Animal Emergency Response Plan has been developed to assist Michigan counties and emergency management units in addressing emergencies and disasters affecting animals. This Plan is meant to serve as a “stand-alone plan”, separate from the county emergency plan. For some emergency managers who already have an animal plan or annex, it may serve as an animal response guide, resource, or reference.

This Plan is available electronically for download at www.msue.msu.edu/emergency. The term “Spartan County” is of course a generic county name for Michigan. A county that wishes to adopt this plan in full may download the document and perform a “seek and replace” with their respective county name. However, the authors of this template and the Emergency Planning Unit of MSP-EMHSD strongly suggest that the user read through the plan and make changes that will address needs in his/her respective county.

Note that under the Department of Homeland Security guidelines, members of the local animal response group who have a direct and active role in the response process will likely need to meet NIMS requirements.

If you have questions, comments, or suggestions regarding the content of this Plan, please contact any of the following individuals:

Dr. Mark Hansen, MSU Extension: (517) 432-7696 hansenm@msu.edu

Dr. Nancy Barr, MI Dept of Agriculture: (517) 242-1982 barrn@michigan.gov

Dr. Nancy Frank, MI Dept of Agriculture: (517) 373-1077 frankn@michigan.gov

Mr. Thom Higinbotham, MSP-EMHSD: (517) 333-5035 higinbot@michigan.gov

The Michigan State Police Emergency Management and Homeland Security Division can also answer questions regarding local plans or NIMS compliancy issues.

* We wish to thank the emergency management office in Schuyler County, NY, as the original template for this plan was provided by that office. Many changes have been made, however, to adapt this plan for use in Michigan regarding animal legislation, resources, forms, and content information in general.

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SPARTAN COUNTY ANIMAL EMERGENCY RESPONSE PLAN

1.0 INTRODUCTION

Spartan County recognizes a need for pro-active disaster planning for its agencies, farms, businesses, and individual citizens. This animal disaster plan has been developed primarily for the safety of **Spartan** County residents and visitors. It also supports the continuance of vital agriculture operations, promotes responsible animal care and companionship, and reduces harmful interactions between humans and non-domestic animals in the event of a disaster. It is intended to organize a system to allocate proper and pertinent resources.

Failure to plan for the animal population will affect the viability of disaster plans for people. For instance, if the disaster warrants an evacuation, many people will not evacuate without their animals or will delay their own evacuation to first make preparations for animals they must leave behind. These refusals or delays begin a chain reaction that can seriously jeopardize the overall disaster plan.

Further, failure to plan for animals prior to an emergency may lead to serious public health concerns during an incident. Injured, ill or, dead animals can pose disease and injury hazards to the public, which may add strain to an already over-taxed emergency medical system.

1.1 Purpose Statement

To protect the public health, the public food supply, domesticated and wild animal resources, the environment, the agricultural economy, and to ensure the humane care and treatment of animals in case of an emergency, including floods, severe storms, tornadoes, drought, fire, explosion, building collapse, commercial transportation accidents, chemical spills, winter storms, power outages, or other situations that can cause animal suffering.

1.2 Scope

This plan is intended for use by **Spartan** County government and agencies as a guideline for implementing immediate action to provide care and control of animals, thereby minimizing animal suffering in the event of a significant emergency. In the event of an emergency, care and control measures outlined herein will apply to all animals, wild and domestic, regardless of ownership.

2.0 (Suggested) AFFECTED AGENCIES/RESPONSIBILITIES

2.1 Local Animal Response Group (LARG)

Spartan County Emergency Management

Responsibilities: Coordinate support agencies to manage animal protection in emergencies. Activate the Emergency Operations Center, if necessary. Responsible for overall direction and control of the emergency incident.

Spartan County Public Health Department

Responsibilities: Provide services which address injuries/bites/diseases related to the protection of humans and animals. Assists the MDA and DEQ in the disposal of dead animals that may impact the public health and in minimizing zoonotic disease outbreaks during an emergency.

Michigan State University Extension of **Spartan** County

Responsibilities: Assist in identifying and procuring additional resources, expertise, volunteers, personnel, equipment, and shelter as required to care for livestock and large companion animals during an emergency. Assist in identifying, surveying, and maintaining a list of large animal and equine sheltering facilities and transportation as part of the Local Animal Response Group.

Michigan Department of Agriculture-Animal Industry Division

Responsibilities: Assist in providing information and direction whenever possible with regard to the general health of animals. Responsible for enforcement of state regulations concerning animal health and the movements of animals affected by those regulations.

Spartan County Sheriff - Animal Control Division

Responsibilities: Provide and coordinate personnel and equipment to collect, rescue and shelter stray or aggressive companion animals. Assist in identifying, surveying, and maintaining a list of small animal sheltering facilities and transportation as part of the Local Animal Response Group.

Spartan County Private Veterinarian

Responsibilities: Assist in providing information and direction with regard to the general health of animals within their expertise. Provide assistance with identifying needs of animals in shelter situations.

Spartan County Humane Society

Responsibilities: Provide trained personnel (staff or volunteers) and equipment to assist in the protection of animals during an emergency, working in cooperation with animal control division.

2.2 Support Agencies (Any of these may also be considered for the LARG)

Michigan Veterinary Medical Association

Provide information on local veterinarians. Encourage their involvement in local animal emergencies and disasters.

Private Veterinarians and Veterinary Clinics

In accordance with clinic policies, provide trained personnel, equipment, and shelter as required to care for pets from evacuated citizens and in cases when established animal shelters are filled or destroyed. Provide medical care within their area of expertise.

Spartan *County Farm Bureau*

Support Michigan State University Extension, if requested, in providing and identifying facilities, equipment, and trained personnel to assist in the transportation and housing of farm livestock in an emergency shelter situation.

Local Animal Rescue Groups

Provide trained volunteers and equipment to assist in the rescue and sheltering of animals during an emergency.

US Forest Service at National Forests

Provide confinement for displaced livestock in grazing areas.

Private Farms, Kennels, and Stables

Provide shelter and supplies to care for displaced livestock and / or domesticated animals.

MI Dept. of Environmental Quality

Provide resources necessary for protection of environment and water quality related to animal carcass disposal and decomposition.

MI Department of Natural Resources

Provide trained personnel and equipment as required to protect sick and/or injured non-domestic animals. Coordinate measures to minimize damage and danger to wildlife, as appropriate.

Licensed Wild Animal Rehabilitators

Provide housing and care to sick and/or injured non-domestic animals in cooperation with MDNR.

USDA Farm Service Agency (County Office)

Chairs and coordinates the activities of the USDA County Emergency Board which provides damage/loss assessment of local agricultural commodities; the USDA-CEB includes representatives of local USDA agencies.

3.0 PLANNING ASSUMPTIONS

Through effective animal protection planning and organization, all disaster relief efforts will be more expedient.

The owners of household pets, exotics and livestock, when notified of an impending emergency, will take reasonable steps to shelter and provide for animals under their care and/or control. Owners of animals should make every effort to have all animals identified and to maintain records of this identification. Some livestock species require identification by law, and owners must keep these records.

Natural, technological, or manmade disasters could affect the well being of domesticated and / or non-domesticated animals. This, in turn can affect the county's overall emergency response plans.

Spartan County should plan for animal-related emergency situations and implement response and recovery operations utilizing local resources. State, federal, and private organizations may provide animal care and rescue assistance in emergencies, when requested.

Animal protection planning should ensure the proper care and recovery of animals impacted during an emergency. This should include measures to identify housing and shelter for animals, establish methods of communicating information to the public, collect stray or lost animals, procure necessary supplies for the care of the animals, and plan for animal release and return to owners or to natural habitat for non-domestic animals.

Public information statements, including locations where animals may be accepted during emergency situations, will be issued through various media outlets.

A large-scale emergency in **Spartan** County may warrant an immediate response from state and local personnel, agencies, and organizations. However, emergency situations may become compounded due to the nature of the emergency and may also require activation of additional specialized agencies through mutual aid agreements.

3.1 Legal Considerations

It is important to note that animals can be classified broadly into two categories: privately owned and publicly owned. Livestock and companion animals are private property; they belong to individuals or entities and have an economic value that may require compensation if those animals are ordered destroyed. Wildlife, both game and non-game species, belongs to the people of the State of Michigan, and separate laws govern them. Each category has laws that govern how animals are cared for and handled. Some of the most important:

Animal Industry Act (Public Act 466 of 1988, MCL 287.701 et seq.)

Prevention, control, and eradication of infectious, contagious diseases, or toxicological contamination of livestock and domesticated animals; importation and movement requirements; indemnification in some cases

Michigan Public Health Code (Public Act 368 of 1978, MCL 333.1101, et seq.)

Prevention and control of diseases impacting humans; license of veterinary medicine; use of controlled substances for animal euthanasia

Natural Resources and Environmental Protection Act (Public Act 451 of 1994, MCL 324.101, et seq.)

Wildlife and habitat conservation and management, including taking, possession, and protection

Animals Running at Large (Public Act 328 of 1976, MCL 433.11, et seq.)

Escaped livestock running at large

Dangerous Animals (Public Act 426 of 1988, MCL 287.321)

Confinement and destruction of dangerous animals; penalties

Bodies of Dead Animals Act (Public Act 239 of 1982, MCL 287.651 et seq.)

Disposal requirements for livestock

Dog Law (Public Act 339 of 1919, MCL 287.261)

Licensing, regulating, destruction of dogs; payment for losses

Additionally, there are many other state laws, as well as federal laws and regulations that control the care and handling of animals. For additional guidance, contact the Michigan Dept. of Agriculture, the Michigan Dept. of Natural Resources, or your local animal control official.

In an emergency situation, the Emergency Management Act (Public Act 390 of 1976, MCL 30.401 et seq.) may be used, and depending on the circumstances, the laws and regulations governing both domestic and wild animals may be suspended as provided by law.

3.2 County Animal Populations

Determining the number and type of animals in **Spartan** County is an important component of planning for an emergency. Ascertaining what livestock industries and how many animals those industries represent, as well as estimating the number of companion animals in the area, is crucial for resource planning.

Methods exist to determine or estimate the number of large and small animals in your county. For farm animals, the Michigan/National Agricultural Statistics Service provides numbers of farms and numbers of farm animals per county. Go to www.michigan.gov/mda and follow the "statistics" link.

Nationally, approximately 60% of households own companion animals, with most owning more than one animal. The American Veterinary Medical Association provides estimation formulas for dogs, cats, birds, and horses at:

www.avma.org/membshp/marketstats/formulas.asp. Other web sites that may be helpful are the U.S. Census Bureau www.census.gov and the American Pet Products Manufacturer's Association www.appma.org

4.0 CONCEPT OF OPERATIONS

4.1 General

The primary and support agencies will manage and coordinate, or assist in coordinating, local animal protection activities. These agencies will use established animal protection and support organizations, processes, and procedures. Responsibility for situation assessment and determination of resource needs in the event of a large-scale emergency lies primarily with Spartan County Emergency Management, the local incident commander, and Spartan County Animal Control, or the designated lead member of the LARG. Depending upon the nature of the emergency, other partners may assist as listed under primary and support agencies in section 2.0, 2.1, and 2.2 of this plan.

When county resources and mutual aid agreements are insufficient, animal protection assistance and resources such as food, medicine, shelter material, specialized personnel, and additional veterinary medical professionals, will be requested from the State of Michigan via processes outlined under the Michigan Emergency Management Act, PA 390. Should the need for State or Federal resources arise, the State Emergency Operations Center will coordinate the requests for assistance.

Animal protection operations will be managed using the Spartan County Comprehensive Emergency Plan and NIMS - the National Incident Management System. Public health concerns will be managed in accordance with appropriate Spartan County plans and procedures.

Animals included under the plan: Domestic and non-domestic.

The sheltering, protection, and identification of domestic animals (including livestock) are the responsibility of their owners. (In times of extreme necessity, public interests may take precedence.)

Domestic animals that are lost, stray, incapable of being cared for by their owners, or a danger to themselves or the public will be the responsibility of the Local Animal Response Group. These animals will be sheltered, fed, and, if possible, returned to their owners. If the animals cannot be returned to their owners, their disposition will be handled in accordance with established animal control guidelines. The animal control guidelines regarding holding periods may need to be extended to provide time to locate owners during a time of disaster.

Non-domestic animals should be left to their own survival instincts. Non-domestic animals out of their natural habitats that are a danger either to themselves or the public will be the responsibility of the MI Department of Natural Resources. These animals will be returned to their natural habitat if possible.

4.2 Notification & Communications

This plan and its procedures will be activated in the event of an emergency that results in a significant need for animal protection. Spartan County Emergency Management will determine when these procedures will be implemented and notify the appropriate primary,

support, and mutual aid agencies. Spartan County Emergency Management will maintain a call down notification system.

Communications among the emergency management coordinator, the Local Animal Response Group, and support agencies will occur primarily through telephone, facsimile, and cellular telephone transmission. Amateur radio will be used as a backup system if other communication is impossible due to the nature of the emergency situation. Spartan County Emergency Management will maintain a list of radio and TV stations for the purpose of public notification when necessary.

Step 1 – Emergency Management Coordinator contacts the designated lead member of the Local Animal Response Group (LARG), who will serve as part of EOC structure.

Step 2 – The Lead Member of the LARG initiates call-down procedure to members.

Step 3 – The lead member of LARG or his/her designee from the LARG membership will contact additional support agencies as needed.

4.3 Public Information

The Spartan County Public Information Officer will be responsible for the coordination of all media activities and press releases associated with the protection of animals.

Responsibilities may include:

- ❖ Notifying the public of appropriate shelters at which to leave lost/stray animals, animals that citizens cannot care for, or animals that need immediate medical assistance. (Appendix A)
- ❖ Delivering instructions to the public to prepare their pets or farm animals for an impending emergency. (Appendix A)
- ❖ Obtaining animal-related information from members of the LARG and/or its support agencies.
- ❖ Promoting public awareness and instructing animal owners on how to prepare and react to all types of disasters through literature, community relations and/or seminars.
- ❖ Disseminating public messages for the purpose of recruiting of volunteers to assist where needed in the event of a disaster.

Steps:

1. The Public Information Officer will work with the LARG prior to an animal incident to develop press release templates for anticipated animal emergencies.
2. During the response phase, the Lead Member of LARG will provide continued updates to the PIO on the animal response effort. This will include

general information on the response and special instruction for the general public, as well as for pet owners, local veterinarians, kennels, agricultural producers, etc. as applicable.

3. The PIO will provide information to the media, public and key audiences as appropriate.

4.4 Response

The owners of pets or livestock, when notified of an emergency, will take all reasonable steps to evacuate, shelter, and care for animals under their control.

4.4.1 Search and rescue procedures

Equine, cattle, and other livestock

Equine, cattle, and other livestock loose or in need of assistance due to the emergency will be the responsibility of the owner; or in the event of the death or evacuation of their owners, will become the responsibility of the Local Animal Response Group (LARG). All reasonable steps will be taken involve the owner in this process. However, the LARG will identify key people who have animal handling training and understand the basic emergency management concepts (ICS training) to assist rescue efforts if needed.

Appendix B – Animal Care Resources

Appendix E – Animal Transportation Resources

Appendix I – Volunteer Resources

Domestic pets

Domestic pets loose or in need of assistance due to the emergency will be the responsibility of the owner. In the event of the death or separation from their owners, pets will become the responsibility of the Local Animal Response Group (LARG). All reasonable steps will be taken by LARG to provide assistance under these circumstances. Prior to an incident, LARG will identify key people who have animal handling training and understand the basic emergency management concepts (ICS training) to assist rescue efforts.

Appendix B – Animal Care Resources

Appendix E – Animal Transportation Resources

Appendix I – Volunteer Resources

Steps:

1. Identify trained individuals in animal search and rescue techniques prior to an incident. (Appendix I)
2. Incident commander identifies geographic areas requiring search and rescue efforts and activates team.
3. A representative of the LARG determines that the livestock or companion animal is able to be cared for by its owner. If the owner is incapacitated or cannot be found, the animal becomes the responsibility of the LARG.

4. Trained personnel assess and document medical condition and temperament of animal.
5. Apply triage on-site if necessary or move animal to treatment facility or shelter using pre-arranged methods of transportation.
6. Document all pertinent information and ensure that a tracking system is in place to return animals to owners.

Wildlife

Non-domestic animals out of their natural habitat that are endangering either themselves or the human population will be handled in accordance with Michigan Department of Natural Resources guidelines. If possible, non-domestic animals outside of their natural habitat will be transported back to their natural habitat. Licensed wildlife rehabilitators may be able to provide care and handling of wildlife that need to be relocated or are injured. A list of licensed wildlife rehabilitators can be found at www.michigan.gov on the Department of Natural Resources page.

4.4.2. Evacuation and sheltering of animals

Evacuation / sheltering of equine, cattle, and other livestock

In most cases, equine, cattle, and other livestock should be sheltered in place. If not feasible, animals will be transported to private or public facilities by the owner of the animals with assistance from the LARG. Livestock owners should have evacuation plans, including multiple evacuation routes decided upon before the need to evacuate arises. Owners are expected to have official identification on all animals which require this (varies by species, information can be obtained from the MDA).

If needed, the Local Animal Response Group will provide assistance or facilitation in the transportation of evacuated livestock to a shelter or a medical care facility. The LARG will ensure that a tracking system is in place to unite sheltered horses and livestock with their rightful owners. Cleaning and disinfection of transport vehicles will also be overseen by LARG. Transportation will be provided by individuals licensed as livestock haulers when possible. The livestock owner is expected to reimburse transport personnel. Every effort will be made to prevent the spread of communicable diseases during the shipping/sheltering period through prevention of co-mingling of animals and appropriate isolation, cleaning and disinfecting protocols.

If the need arises, the Local Animal Response Group may provide an equine and/or livestock shelter. Strong consideration should be given to using the county fairgrounds as a large animal shelter. Mutual aid agreements with surrounding counties for the use of their fairgrounds should be considered. Private boarding barns or other privately owned facilities may also be considered for shelters with prior approval of the owner, pending the availability of liability insurance and biosecurity measures.

Appendix B – Animal Care Resources

Appendix C – Animal Holding Areas

Appendix E – Animal Transportation Resources

Appendix F – Emergency Housing and Care for Equine, Cattle and Other Livestock.

Steps:

1. Attempt to shelter livestock in place. If the farm is threatened (e.g., rising flood waters), inform livestock owners of the need to evacuate their animals.
2. Determine if there is a need for LARG to activate livestock shelters at pre-determined sites. Contact partners with whom mutual aid agreements have been made to activate sites.
3. Determine type and quantity of resources needed. Contact pre-arranged suppliers to have resources delivered to distribution location.
4. Activate volunteer resources for care of animals in the LARG shelters.
5. Provide information to livestock owners about the locations in which animals may be sheltered.
6. Provide information to owners on what items should be taken with the animals (tack, feed, water, medications, records, etc.).
7. Provide assistance in obtaining transport of livestock, if requested by owner.
8. Ensure that livestock haulers contracted by the LARG are using effective protocols for maintaining biosecurity when transporting animals.
9. Ensure that a tracking system is in place to reunite animals with their owners after the incident. For large livestock, this should include identification that can be easily seen from a distance.
10. Maintain strict biosecurity protocols at the livestock shelters to prevent transfer of communicable diseases between animals as well as between animals and the people caring for them.

Evacuation / sheltering of domestic pets

If the need arises, the Local Animal Response Group may open a pet shelter.

The shelter will be at a location that can provide effective confinement and provision of basic animal care needs such as food, water, and bedding, and will be located as close as possible to the evacuated citizen shelter. An area at the citizens' evacuation center should be available to provide directions to the pet shelter. This shelter should provide housing and care for common household pets, including dogs, cats, ferrets, rabbits, guinea pigs, etc. For exotic species which require specialized housing or care, the LARG may refer owners of these animals to shelters specializing in the care of these species, if such shelters are available. Owners of exotic animals requiring specialized care should be encouraged to plan for evacuation and sheltering of their animals.

Domestic pets of evacuated citizens may be sheltered at private boarding kennels and veterinary hospitals, at the owner's expense.

Owners are encouraged to have a means of proving identification and ownership of pets. This may include microchips, photographs of the owner with the pet, licensing information, medical records, etc. Each of the citizens' evacuation shelters will have an animal caretaker on the premises. This caretaker will be experienced in or otherwise qualified to evaluate the medical and temperament needs of animals brought to the facility. Recommendations will be made for treatment and/or sheltering provisions, possibly on a case-by-case basis. Pets with significant injuries or illnesses will be transported to a designated animal hospital or provided with medical treatment on-site by veterinary professionals.

A representative of the Local Animal Response Group and support organizations will provide assistance in the transportation of the evacuated pets to either the shelter facility or hospital and ensure that a tracking system is in place to reunite sheltered pets with their rightful owners. Every effort will be made to prevent the spread of communicable diseases during this transportation/sheltering period through prevention of co-mingling of animals and appropriate isolation, cleaning, and disinfecting protocols.

Citizens with special needs (individuals with mental or physical challenges who require evacuation assistance) may also require assistance in evacuating their pets. Therefore, in the interest of public safety, animal owners may be assisted with finding shelter and care for their animals during a public emergency. Upon arrival at the shelter, pets not trained specifically to assist the individual (e.g. seeing-eye dogs) will be transported to a private boarding facility or other animal evacuation facility.

Appendix B – Animal Care Resources

Appendix C – Animal Holding Areas

Appendix E – Animal Transportation Resources

Appendix G – Emergency Housing and Care for Household Pets and Exotics

Steps:

1. Inform owners of the need to evacuate their animals.
2. Determine if there is a need for LARG to activate companion animal shelters at pre-determined sites. Contact partners with whom mutual aid agreements have been made to arrange use of these sites.
3. Determine type and quantity of resources needed. Contact pre-arranged suppliers to have resources delivered to distribution location.
4. Activate volunteer resources for care of animals in the LARG shelters.
5. Provide information to pet owners about the locations in which animals may be sheltered, including information on what items should be taken with the animals (food, water, medications, records, etc.).
6. Set-up information center at human evacuation shelters to direct pet owners to animal evacuation shelters.
7. Provide assistance in obtaining transport of pets, if requested by owner.

8. Ensure that a tracking system is in place to reunite animals with their owners after the incident.
9. Maintain strict biosecurity practices at the pet shelters to prevent, as much as possible, the transfer of communicable diseases between animals as well as from animals to people caring for them.

4.4.3. Stray / lost animal procedures

Equine, cattle, and other livestock

Stray and lost animals will be returned to the owners and/or transported according to the plans outlined in item 4.4.1 and 4.4.2

Appendix B – Animal Care Resources

Appendix C – Animal Holding Areas

Appendix E – Animal Transportation Resources

Appendix F – Emergency Housing and Care for Equine, Cattle and Other Livestock.

Domestic Pets

Stray and lost animals will be transported and sheltered according to the plans outlined in item 4.6.1 and 4.6.2.

Appendix B – Animal Care Resources

Appendix C – Animal Holding Areas

Appendix E – Animal Transportation Resources

Appendix G – Emergency Housing for Household Pets and Exotics

4.4.4. Incapacitation of Shelters

If the primary animal shelter is incapacitated, mutual aid or alternative plans will be implemented.

4.4.5. Shelter Staff & Supplies

1. Staff

The LARG will be responsible for prearranged staffing of both the large and small animal sheltering facilities they establish.

Private boarding kennels and veterinary hospitals, if utilized, will be responsible for staffing their own boarding facilities and will be compensated by the animal owners according to established policies.

2. Supplies

For shelter facilities established by the LARG, the LARG will be responsible for pre-identifying sources for critical supplies, for example: potable water, food, medical, cleaning and other shelter supplies. In the event of an emergency, the suppliers will

be asked to deliver the needed items to a delivery point, which will serve as a storage center and a distribution center for the shelter.

Private boarding kennels, animal shelters and veterinary hospitals are encouraged to pre-identify sources for critical supplies.

If the need arises, resource agencies (e.g., humane groups, pet stores, pet food companies, etc.) may be asked to donate cages and other various shelter supplies.

Appendix B – Animal Care Resources
Appendix H – Veterinary Resources
Appendix I – Volunteer Resources

4.4.6. Medical Assistance

Animal Treatment Facilities

The Local Animal Response Group will coordinate resources to establish a medical facility for domestic animals that require medical care due to illness or injury. This medical care area may be in the same location or near the animal shelter area for convenience. The LARG will identify private veterinary hospitals and other locations that may serve as alternate medical facilities and/or shelters as space permits.

Staff

Under the supervision of a licensed veterinarian, trained volunteers may assist in providing care in these medical shelters. Depending upon the extent of the emergency situation, volunteer veterinarians and technicians or Veterinary Medical Assistance Teams (VMAT) from the American Veterinary Medical Association may be requested to assist in the treatment of domestic and non-domestic animals.

Appendix H – Veterinary Resources
Appendix I – Volunteer Resources

Steps:

1. If animals that are the responsibility of the LARG, are in need of medical care, transport them to participating private veterinary medical facilities. (Appendix H)
2. If these facilities resources have become overwhelmed, the LARG should establish a temporary animal medical treatment center.
3. Request assistance from veterinary professionals and trained volunteer resources to care for animals. (Appendix H and I)
4. Notify pre-identified suppliers of veterinary medical resources to request delivery.
5. Arrange for shelter of animals requiring treatment, giving consideration to separating animals that show symptoms of contagious disease.

6. Ensure that a tracking system is in place to reunite animals with their owners.

4.4.7. Bites/Disease Control

In the event of a bite or scratch to a person by an animal with unknown rabies status, measures will be in place to quarantine the animal according to the Michigan Department of Community Health guidelines. People who have been bitten or scratched should be directed to their private physicians for treatment or in a temporary shelter situation, be cared for by medical personnel at the site.

4.5 Recovery

4.5.1. Recovery of Companion Animals with Owners:

Spartan County Animal Control will support efforts to identify owners of stray/lost animals. If owners cannot be found, disposition of animals that cannot be placed in adoptive care or sold, will be handled in accordance with established animal control guidelines. The animal control guidelines regarding holding periods may need to be extended to provide time to locate owners during a time of disaster.

4.5.2. Disposal of Animal Carcasses:

Disposal of deceased animals will be coordinated by the Local Animal Response Group, in cooperation with the Local County Health Department, Michigan Department of Agriculture and the Michigan Department of Environmental Quality. The LARG will arrange for disposal of euthanized animals and animals killed as a result of the incident. Refer to Act 239, Public Acts 1982, "Bodies of Dead Animals"

1. Livestock or cattle farm planning

Each livestock producer or owner should have a disaster plan that consists of the following:

- a. Equipment to move dead animals
- b. Identify on site designated land for burial
- c. Determine a contact person with Michigan State University Extension or USDA County Emergency Board to report damages and request assistance and/or indemnity.

2. County-wide plan

- a. Identify all premises containing large populations of animals.
- b. Identify local animal response team member for administering dead animal emergencies.
- c. Identify commercial clean out crews (people to remove dead animals and wet/destroyed bedding material).
- d. Identify equipment for handling/hauling dead animals
- e. Make arrangements with other counties or solid waste disposal facilities for resources and land space.

3. Carcass disposal methods (Subject to change during an infectious disease outbreak and or P.A. 239.):

a. Rendering
b. Landfill

c. On-site composting
d. Burial

e. Incineration

5.0 REVIEW AND UPDATE

On a regular basis, this procedure will be reviewed and updated as appropriate by the Local Animal Response Group, Spartan County Emergency Management, and other affected agencies. This procedure will be periodically tested by an appropriate exercise method.

Effective Date: ____/____/____

6.0 APPROVAL

6.1 Local Animal Response Group*

SPARTAN COUNTY EMERGENCY MANAGEMENT

Signature: _____ Date _____

SPARTAN COUNTY ANIMAL CONTROL DIVISION

Signature: _____ Date _____

SPARTAN COUNTY PUBLIC HEALTH DEPARTMENT

Signature: _____ Date _____

SPARTAN COUNTY MICHIGAN STATE UNIVERSITY EXTENSION

Signature: _____ Date _____

MICHIGAN DEPARTMENT OF AGRICULTURE – ANIMAL INDUSTRY DIVISION

Signature: _____ Date _____

PRIVATE VETERINARIAN

Signature: _____ Date _____

AREA HUMANE SOCIETY REPRESENTATIVE

Signature: _____ Date _____

* Approval list should include all members of the Local Animal Response Group

7.0 APPENDICES

APPENDIX A - PUBLIC EDUCATION MESSAGES

Domestic Pets

- ✓ If you evacuate your home, **DO NOT LEAVE YOUR PETS BEHIND**. Pets cannot survive on their own and you may not be able to find them when you return.
- ✓ For public health reasons, many emergency shelters cannot accept pets. Find out which motels and hotels in your area allow pets in an emergency. Include your local animal shelter's number in your list of emergency numbers; they will be able to provide information concerning pets during a disaster.
- ✓ Make sure identification tags current and securely fastened to your pet's collar. If possible, attach the address and/or phone number of your evacuation site or an out-of area emergency contact. Microchipping is recommended as a permanent form of identification. Have a current photo of your pet or microchip information for identification purposes.
- ✓ For pets requiring licenses, have proof of a current license.
- ✓ Have a copy of your pet's medical records, including vaccination status, and place one in your vehicle. If you are unable to return to your home right away, you may need to board your pet. Most boarding kennels, veterinarians, and animal shelters require that your pet's vaccinations be current.
- ✓ If it is impossible to take your pet with you to a temporary shelter, contact friends, family, veterinarians, or boarding kennels to arrange for care. Make sure medical and feeding information, food, medicine and other supplies accompany your pet to its foster home.

Suggested supplies for an animal emergency kit:

- ❖ a secure, portable pet carrier
- ❖ collar (with current identification tag) and leash or harness
- ❖ pet food (nonperishable) and a can opener if necessary
- ❖ bottled water
- ❖ Pet waste clean-up supplies and a small litter box and litter for cats
- ❖ your pets updated medical records
- ❖ important phone numbers such as veterinarian, kennel, emergency clinic, hotels which accept pets.
- ❖ medications your pets may require
- ❖ recent photo of you and your pet

Equine, cattle, and other livestock

Attempt to shelter equine, cattle, and other livestock in place if possible, or evacuate if necessary. Evacuation routes, including alternates, should be pre-determined. The evacuation sites should already have or be able to readily obtain, food, water, veterinary care, handling equipment and containment facilities. If evacuation is not possible, a decision must be made whether to move

large animals to available shelter or turn them outside. This decision should be determined based on the type of disaster and the soundness and location of the shelter. Food and water should be available for the animals whether they are left in a shelter or outdoors. All animals should have some form of identification that will help facilitate their return.

Wildlife

Never attempt to capture a non-domestic animal unless you have the training, protective clothing, restraint equipment and caging necessary to perform the job. Often, during natural disasters, mosquitoes and dead animal carcasses can be sources of disease and outbreaks of zoonotic diseases may occur. Contact your local emergency management office or DNR office for help.

Further assistance

If you see an injured or stranded animal in need of assistance, or if you have any other questions or concerns about animal protection during an emergency situation, contact the **Spartan** County Emergency Management or the **Spartan** County Public Health Department (include phone numbers/addresses)

APPENDIX B - ANIMAL CARE RESOURCES (FEED, BEDDING, AND CONFINEMENT)

Consider the following businesses for obtaining these resources: pet supply stores, tack shops, feed elevators, farm equipment supply stores, hardware stores, grocery stores, pharmaceutical and medical supply companies or distributors, Large private farms may also have needed resources. These suppliers should be contacted in advance of an incident and pertinent information should be periodically updated. Make copies of this sheet to accommodate all information.

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Animal Care Resources (feed, bedding, and confinement) page 2

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

Business Name: _____
Business Address: _____
Contact person (owner/manager): _____
Phone number: _____
Alternate phone in case of emergency: home: _____ cell: _____
Supplies available: _____

APPENDIX C - ANIMAL HOLDING AREAS FOR SPARTAN COUNTY

1. Livestock care and holding facilities

Attempt to shelter animals in place if possible. Consider the following alternatives for housing livestock: county fair locations in Spartan and adjacent counties, livestock auction facilities, university farms, licensed riding stables and animal shelters, state or federal land (DNR), private farms. Also identify resources for erecting temporary facilities with items such as tents and portable stalls and gates.

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

2. Companion animal holding facilities

Consider the following types of businesses and facilities for housing companion animals: private veterinary hospitals/kennels, registered animal shelters (county run and private, non-profit), and county fairgrounds. Shelters which specialize in caring for exotic species should also be identified. Locate resources for erecting temporary facilities with items such as tents and portable pens and cages.

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

Facility Name: _____
Facility Address: _____
Contact Name (owner/manager): _____
Phone number: _____ Cell: _____ Home: _____
Species which can be accommodated and capacity: _____

APPENDIX D – HOTELS / MOTELS ACCEPTING ANIMALS

Hotels / motels that accept pets in the **Spartan** County Area (Note: Some hotels and motels will ease pet restrictions during an emergency situation)

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

Hotel/motel name: _____
Address: _____
Phone number: _____ Number of rooms: _____
Types of animal allowed: _____

APPENDIX E - ANIMAL TRANSPORTATION RESOURCES

The Michigan Department of Agriculture licenses livestock haulers. A list of licensed livestock haulers can be obtained by contacting MDA, Animal Industry Division at 517-373-1077. In the event of an incident, additional resources may be needed.

Name of Livestock Hauler: _____
Address: _____
Phone (Home): _____ (Cell) _____ (Alt) _____
Type of vehicle/animal species hauled/capacity: _____

Name of Livestock Hauler: _____
Address: _____
Phone (Home): _____ (Cell) _____ (Alt) _____
Type of vehicle/animal species hauled/capacity: _____

Name of Livestock Hauler: _____
Address: _____
Phone (Home): _____ (Cell) _____ (Alt) _____
Type of vehicle/animal species hauled/capacity: _____

Name of Livestock Hauler: _____
Address: _____
Phone (Home): _____ (Cell) _____ (Alt) _____
Type of vehicle/animal species hauled/capacity: _____

Name of Livestock Hauler: _____
Address: _____
Phone (Home): _____ (Cell) _____ (Alt) _____
Type of vehicle/animal species hauled/capacity: _____

Name of Livestock Hauler: _____
Address: _____
Phone (Home): _____ (Cell) _____ (Alt) _____
Type of vehicle/animal species hauled/capacity: _____

APPENDIX F - GUIDELINES FOR HANDLING HORSE AND CATTLE DURING EMERGENCIES

Guidelines for Horses During Emergencies

Adapted from the American Veterinary Medicine Association Disaster Preparedness and Response Guide

Free roaming horses will naturally group together and move as a group. Many horses will allow themselves to be caught, especially if they are encouraged with grain. Catching a horse can be done by first placing a rope loosely around its neck, and then fitting on a halter. If a large group of horses avoid capture, they should be rounded up in small groups and corralled into smaller confinements. If the horses cannot be rounded up and have not suffered any obvious injuries, they may be kept fenced in and fed without further human contact.

When moving horses into an unfamiliar environment, the handler should allow them time to investigate their new surroundings. Not all horses are familiar with being tied to a stationary object. If horses must be tied, use a quick release knot. Many horses have only been kept in wooden fenced paddocks. If wire fencing is all that is available, tie 2" x 24" cloth strips to the top wire every 6 to 10 feet.

Identification

Many horses are permanently identified with a tattoo on the inside of their upper lip, freeze brands under the mane, and brands on the outsides of their hind limbs. These are helpful in recording the identification on a horse. Other methods for identification that can be used include neck banding, microchip injection, painting or etching the hooves, and describing all whorls of the horses' coats. Photographs of the right and left sides of the body, medial and lateral aspects of the lower legs, and the face of a horse are helpful in matching owners' descriptions when trying to locate misplaced animals.

Behavior

Most horses are familiar with people and are used to being handled. Horses will seek to establish hierarchy when first grouped together. If this occurs under confined conditions, horses may become violent resulting in serious injuries to each other and to people handling them. Horses show signs of aggression toward people by pinning their ears back, extending their necks to bite, or turning their rear quarters toward an approaching person. Special care should be taken to avoid standing between mares and their foals, and when handling stallions (adult un-castrated males).

Ideally, horses should be kept in small herds at pasture or in individual stalls. If this is not possible, allow horses plenty of room to reduce aggression. Never place two or more stallions together. If at all possible, observe horses for the first few hours after placing together in a herd.

Methods of restraint

Horses can be dangerous. Restraint and handling of horses should be done by people with equine experience. Most horses will cooperate once they have a halter and lead rope on. If sedation is required for restraint, authorized personnel will perform the sedation. Injured horses should not be worked on until they are fully sedated. This usually takes 5 — 10 minutes after intravenous injection. Sedated horses may still kick if abrupt movements or sounds startle them.

Health concerns

Dietary changes predispose horses to colic, laminitis, and hyperlipemia. Mixing of horses from various sources predisposes them to contagious respiratory disease. Vaccinating all horses against Equine Herpes Virus, Equine Influenza, Eastern and Western Equine Encephalitis, Tetanus, and West Nile Virus, can minimize the spread of contagious disease. Any horse that will be spending more than a few days grazing on shared pasture should be dewormed with a paste dewormer. A fly spray or insect repellent approved for use on horses should be applied to them to decrease the spread of vector-borne diseases.

Typical weights and heights

Horses are measured in "hands," one hand being equal to 4 inches. Horse's heights are measured at the highest point of the shoulder (withers). Typical weights and sizes of horses are:

	Adult weight (#)	Newborn weight (#)	Approx. Height
Giant Breeds	1,500 – 2,000	150 - 200	17+ hands
Full Size	750 - 1,200	75 -100	15 -17 hands
Pony	500 - 750	50 – 75	< 15 hands
Miniature	200 - 400	20 - 40	< 40 inches

Typical feeding requirements of horses

Ideally, horses should be fed individually or in small groups. They should be fed twice a day at regular intervals. If horses are fed in groups, the most aggressive ones should be fed first. If that is not possible, observe horses at feeding time to ensure that all horses allow each other access to feed and water.

Under resting conditions and when ambient temperatures are above 40° F, horses should consume about 2% of their body weight per day in dry matter. About 75% of this should be derived from forages (hay) and 25% from grain. 12% protein horse pellets and sweet feed are the preferred grains. Total feed intake depends on body size. For example, a 1,000 lb horse will require 7.5 lb (approximately 1 /5 of a rectangular bale) of hay and 2.5 lb of grain at each feeding. This amount should be fed in the morning and in the evening. In addition, horses require about 2% of their body weight in fresh water per day, and 1 -2 oz of loose salt. All of the feeding requirements should be doubled for lactating mares and increased if ambient temperatures fall below 40° F.

To estimate the amount of feed required for a horse herd, calculate the biomass of the horses by estimating the approximate weight of all the horses and adding the weights together. Multiply this figure by the feed requirements listed above to calculate the amount of hay, grain, water, and salt needed for the herd.

Sheltering and housing

Ideally, horses should be kept in small herds at pasture or in individual stalls. The amount of bedding required depends on the type of flooring. Porous flooring with plenty of lime mixed into it requires the least additional bedding. Concrete flooring requires the most. The approximate amount of bedding that will be required is one bale of straw per 12 x 12 ft stall.

Straw is the preferred bedding under emergency conditions, as it is likely to be available, is space efficient, and is most degradable. Alternatively, 2 bales per stall of conifer wood shavings or shredded newspapers can be used. Black walnut and exotic wood shavings cannot be used.

Fencing materials that are free of projections should surround paddocks for horses. Barbed wire is not suitable for fencing horses. Electric wire fencing can be used, but it must be made visible to horses by 2" x 24" strips of cloth every 6 to 10 feet.

Sanitation

Horses will produce about 0.5% of their body weight of manure per day. Manure should be removed from stalls at least once a day. Manure from horses on pasture should be collected once per week if possible. Manure should be stacked in neat piles, with minimal surface area, to promote composting and reduce fly hatching. To further reduce fly burdens, the manure pile can be sprayed every 3 days with fly spray.

Horses void about 0.5% of their body weight as urine each day. Urine is a major attractant to stable flies. Completely remove the stall bedding at least every third day to reduce fly problems. The total amount of manure and bedding that will accumulate can be calculated from the number of horses, the average amount of manure produced, plus the number of straw bales used. Manure piles should be located at least 200 yards from the stabling facilities.

Zoonoses

Zoonoses are diseases which can be transmitted from animals to people and from people to animals. Salmonella is endemic in many horse populations. Stressed horses, such as those surviving a major disaster, are most likely to suffer from clinical salmonellosis and develop fulminant diarrhea. Horses that develop diarrhea may have a guarded to poor prognosis and are a potential source of infection to other horses and personnel. For these reasons, serious consideration should be given to euthanasia, especially if the horse can only be maintained by compromising the level of care to other horses.

Euthanasia and disposal

Disposal must be considered prior to euthanasia. If at all possible, it is easiest to walk the horse to the site where the carcass will be buried, rather than transport dead horses to a disposal site. Euthanasia will be done under supervision of qualified personnel. Records will be kept of all dead horses.

Guidelines for Cattle During Emergencies

Cattle are grazers and browsers by nature and are easily adaptable to new environments. They are gregarious animals that follow herd instincts, but may be excited and frightened by new persons, predators, and dogs in their midst. Because of their gregarious nature, individual cows become anxious in situations that lead to their isolation from the herd. They have keen eyesight and hearing and can detect something unusual at distances of several hundred yards.

Behavior during the disaster event

Cattle normally will move away from fire and flood, but in an excited state they may actually move into such a disaster. Herding and driving cattle during a disaster is made more difficult because herding instinct is overridden by survival reaction. Injuries, especially to the younger animals, are much more probable during a disaster.

Behavior during the immediate aftermath

Most cattle, if given hay, water, and a space to stand or lie down, will acclimate well in their new surroundings. The more antisocial animals, especially bulls, may not become content as quickly and may attempt to escape. There is also a problem with establishment of social dominance within

a group if new numbers are added. This is particularly true with bulls, and though cows usually settle down soon, the bulls may continue the struggle for dominance for a protracted period. Bulls are dangerous. They should be penned separately and handled only by people with experience.

Capture, containment and restraint

Dairy cattle are used to caretakers, are socialized to human beings, and are easily penned. Beef cattle commonly are fed hay and grain in or around a barn or corral, which can aid in penning. If a preexisting structure is not in place, a temporary corral can be built with portable gate panels. Avoid barbed wire and woven wire fencing because of the danger of injury to excited animals and animals unfamiliar with fences. Portable corrals may be used to make runways and chutes for restraint. To load cattle into a trailer, portable gate panels can be made progressively smaller from the corral into a narrow alley, which ends at the truck. Avoid creating tight turns and have a way of blocking the entrance of the alleyway so that animals cannot back up into the corral rather than go forward to the truck.

The most common and available method of restraint is the lariat and halter. This restraint is dependent on having something to which the animal can be secured. For particularly fractious animals, application of a nose lead in combination with a rope halter provides additional distractions and approved restraint.

The most desirable restraint device is the portable cattle chute with a head restraint. Diagnosis and treatment are much easier and safer with this equipment. Tranquilization or sedation of injured animals may be necessary. Tranquilization will be done under supervision of qualified personnel.

If evacuation from the home premise is necessary, bumper-pull or fifth wheel type stock trailers, 12' x 16' or larger and without compartments, should be used. The low bed with a low center of gravity allows easier loading and unloading and is more stable in winds and water.

Animal identification methods

Permanent identification of dairy cattle is usually numerical by means of an ear tag, ear tattoo, brand, microchip, or numbered neck chain. Animals may be temporarily identified through use of livestock marking crayons. All cattle are required to be officially identified prior to leaving a premise in Michigan. Contact the Michigan Department of Agriculture's Animal Industry Division with specific questions about official ID.

Typical weights

Dairy cattle – Holsteins are the largest and most common of the 5 major breeds of dairy cattle. Holsteins are black and white and cows weigh an average of 1,500 lbs., mature bulls can tip the scales at more than a ton. Jersey dairy cattle are the smallest, with mature cows weighing approximately 1,000 lb. and bulls near 1,500 lb. Weigh tapes for measuring heart girth provide a fairly accurate estimate of weight in dairy cattle.

Beef cattle – There are wide variations among and within beef breeds. Weights can range from an 850 lb. British crossbred female to 2,500 lb. Charolais male. A weight tape for beef cattle, which measures heart girth, is fairly accurate.

Nutritional requirements

Cattle are grazing animals and can be maintained adequately on a variety of grasses on pasture. Care should be taken in selecting the site to pen cattle, because ornamental plants, which may be appealing to hungry ruminants, can be extremely toxic if consumed by cattle.

Beef cattle and yearling cattle require only grass hay and water for survival. Calves less than 3 months old require milk or milk replacer along with grass hay.

Lactating dairy cattle have different needs. Some important feeding recommendations for lactating dairy cows during an emergency situation are discussed here. The first priority is to provide feed to keep the cows healthy; providing feeds which support milk production is secondary. Hay is the best feed choice to keep the cows healthy. Provide all the hay the cows will consume. An individual mature dairy cow will consume about 30-40 pounds of hay. Younger dairy cattle (heifers) will consume about 15-20 pounds per day per animal. Hay quality is not highly important, although the hay should be clean and not moldy. Small square bales or large round or square bales may be used and can be placed on the ground if feed bunks or bale feeders are not available. Spread the hay around the paddock so that all cows have access to the hay. Hay silage can be fed if dry hay is not available. Corn silage should not be the first choice since it contains grain, which can make cows sick if they consume too much.

Water is very important and must be provided. A dairy cow will need about 25-30 gallons of water per day. Some type of large water trough will be needed for the cows to drink from.

Milk production in dairy cattle will increase or decrease according to nutrient intake. Grass hay can be fed to dairy cattle for several days and they will suffer only temporary milk production loss when put back on their full production level ration. By reducing the caloric intake, a cow will reduce its milk production. Decrease in milk production may not be rapid enough to prevent mastitis. If the disaster causes electric power outages or cattle are moved to a location without milking facilities, milking even a small number of cows becomes an unrewarding and difficult task. However, having portable milkers and generators or pre-determined evacuation sites with milking equipment available is an important planning consideration for dairy producers and emergency managers.

Providing safe drinking water for animals

Because contaminated water may contain pathogenic organisms, treat it with chlorine to make it safer. Ideally, the water should be tested, but during a disaster this may not be possible. Treating water with sodium hypochlorite (household bleach) will be beneficial. The following treatments should be followed when treating water:

16 drops of bleach for 1 gallon of water

1 Tablespoon of bleach for 15 gallons of water

½ cup of bleach for 120 gallons of water

When treating water, use unscented bleach. Allow the water to stand for 30 minutes after treatment to allow the bleach to mix thoroughly with the water.

Health concerns

Emergency conditions that lead to the commingling of animals from various operations increase the risk of infectious disease. This can be caused by a multitude of enteric and respiratory pathogens. In light of the difficulty imposed by attempting individual treatment, mass medication may be considered for treatment and control of infection. Large ruminants are frequently affected with bloat, diarrhea, and pneumonia during prolonged unusual events.

Prevention of most bloat and diarrhea can be accomplished through nutritional management. Pneumonia can be partially prevented through vaccination against respiratory pathogens and providing rest and fresh air during the disaster. Even the best managed cattle will contract some stress-related pneumonia and a treatment center should be set up for care of sick cattle.

Severe traumatic injuries will require individual examination and treatment. Lacerations and fractured bones may be detected in cattle during the aftermath of a disaster. The lacerations can be treated but fractures are difficult to manage in cattle and euthanasia may be required. Qualified personnel will conduct drug administration and pain management.

Housing and sanitation

Dairy cattle should be kept clean, dry and comfortable. If the disaster occurs during the hot and humid season, shade must be provided if it does not exist in the area of confinement. Avoid total enclosure, but shelter animals with shade cloth or plastic tarp from the extremes of heat or cold stress. Cattle should be moved with care if the ambient temperature exceeds 30° C (86° F) in order to avoid heat stress. The comfortable range in temperature for dairy cattle is between 41° and 78° F. Beef cattle requiring medical care might be housed in a confined area to expedite treatment, but healthy cattle do better in pastures or paddocks, and they tend to settle down quicker when put in an environment similar to where they had been maintained prior to the disaster. In addition, the open air will help disperse respiratory pathogens.

Provision for manure removal is important. Cattle excrete about 5% of their body weight in manure and urine daily. Straw should be used for bedding, when required, because it will be easier to obtain and dispose of during times of disaster.

Zoonoses concerns

Zoonoses are diseases which can be transmitted from animals to people and from people to animals. The greatest risks are from enteric pathogens such as salmonella, cryptosporidia campylobacter, and giardia. Adult cattle maintained in questionable sanitary conditions can transfer these diseases without becoming clinically ill. Calves and yearlings will usually become sick and require treatment. Contaminated water can be a source of pathogens for the cattle, therefore caretakers should use caution when handling cattle with diarrhea and never consume water from an unapproved source.

Euthanasia and disposal

Disposal must be considered prior to euthanasia. If at all possible, it is easiest to herd the animals to the site where the carcass will be buried, rather than transport dead animals to a disposal site. The recommended method of euthanasia is with an appropriate chemical injection. Euthanasia will be performed under the supervision of qualified personnel. Records will be kept of all dead animals. Disposal of dead cattle can create a problem due to the potential health hazard and great volume of carcasses. Methods such as deep burial or burning can be done if local air and water quality regulations permit. Refer to Michigan Compiled Laws Act 239, Public Acts 1982, "Bodies of Dead Animals" and the Michigan Department of Agriculture's Mass Carcass Disposal Plan for disposal requirements.

Guidelines for Other Livestock during Emergencies

Information on handling, nutrition and transport of other livestock may be obtained from: Michigan State University Department of Animal Science (517-355-8383), MSU College of Veterinary Medicine Large Animal Clinical Information Service (517-355-1281), Michigan Department of Agriculture (517-373-1077) and the Michigan Veterinary Medical Association (517-347-4710).

APPENDIX G— EMERGENCY HOUSING AND CARE OF HOUSEHOLD PETS AND EXOTICS

Background

For purposes of public shelter, "pets" are defined as dogs and cats, service animals, and exotics such as small mammals, small reptiles and caged birds. Some exotic species require highly specialized care and housing; in this case, the LARG may assist owners in finding alternative shelters for these animals. Many humane groups, animal shelters and rescue groups can provide trained care and housing for exotic species.

While the sheltering and protection of companion animals are the owners' responsibility, studies show that up to 60% of the population may refuse to evacuate without their animals. In addition, citizens with special needs (individuals with mental or physical challenges who require evacuation assistance) may require assistance in evacuating their pets. Therefore, in the interest of public safety, animal owners may be assisted in finding shelter and care for their animals during a public emergency.

Domestic pets of evacuated citizens may be sheltered at private boarding kennels and veterinary hospitals as close to the evacuation shelters as possible, or other facilities designated by the Local Animal Response Group. Upon activation of evacuation shelters for citizens, the Local Animal Response Group may initiate the opening of temporary animal boarding facilities. A representative of the Local Animal Response Group will be assigned to evaluate the animal's health and condition, and assist in transporting pets to these shelters. They will also ensure that a tracking system is in place to identify the rightful owners of sheltered pets. All reasonable steps will be taken to prevent the spread of communicable and/or zoonotic diseases during this time.

Domestic animals that are lost, stray, incapable of being cared for by their owners, or a danger to themselves or the public will be the responsibility of the LARG. These animals will be sheltered, fed and, if possible, returned to their owners. If the animals cannot be returned to their owners, their disposition will be handled in accordance with established animal control procedures.

Behavior during the disaster event

Capturing pets during a disaster is made more difficult because the pet's normal behavior may be overridden by survival instincts. Injuries, especially to young animals, are much more likely during a disaster. In the event that animals cannot be rescued due to the emergency, food and water may be delivered to the animals by the appropriate agency when possible.

Behavior during the immediate aftermath

Most pets, if given food, water and a cage in which they are able to stand or lie down, will acclimate well with their new surroundings. The more antisocial animals, especially cats, may be calmed by providing them with a box in which to hide inside the cage or by covering the cage with a towel or blanket.

Capture, containment, and restraint

Human life will not be risked to capture loose animals. However, many pets are socialized to human beings, and are easily caught. Offering food may allow capture of loose, hungry dogs and cats. In many disasters, there is too much noise and commotion during the day, and displaced pets (especially cats) will stay hidden. Baited traps placed at night in the cat's home territory are very effective. Dogs are not trapped as frequently as cats, as they tend to move around whereas cats are often found in their home territory.

The most common and available method of restraint of dogs is the muzzle and leash. Cats that can be caught may be subdued by wrapping tightly in a large heavy towel with only the head extended. Slip nooses can be used with traumatized, aggressive animals.

Tranquilization or sedation of injured animals may be necessary. Tranquilization will be done under supervision of qualified personnel.

Animal identification methods

Pet identification methods consist of microchips (shown to be most effective animal ID/tracking method during an emergency), collar and tags, or tattoos on the inside of the ear, the lip, or the inside of the hind leg. Every animal should have some form of identification on it when it comes into a designated shelter. Animals without prior identification may be temporarily identified by affixing an identifier to the animal. A corresponding numbered animal description sheet will be filled out on all animals entering a designated shelter.

Nutritional requirements

Qualified personnel will supervise dietary needs so that a nutritious and appropriate diet is provided for each species. Clean water should be provided daily at the rate of 1/2 gallon for average-sized dogs and 1 pint for cats. Because contaminated water may contain pathogenic organisms, chlorine may be used to make it safer. Sodium hypochlorite (household bleach) at the rate of 2 gallons per 100 gallons of water will be beneficial. Ideally, the water should be tested, but during a disaster, this may not be possible. Alternatively, bottled water may be used.

Health concerns

Emergency conditions that lead to commingling of animals from different locations increases the potential for spread of infectious disease. Some of the greatest risks to dogs and cats are canine parvovirus, canine distemper, feline infectious peritonitis, feline leukemia virus, feline panleukopenia, and internal and external parasites. Unvaccinated puppies and kittens will often become sick and require treatment. Even the best managed facility will contract some stress-related respiratory disease and a treatment center or separate area should be set up to care for sick pets.

Severe traumatic injuries will require individual examination and treatment. Lacerations and fractured bones are some of the injuries that may occur in a disaster. Qualified veterinary personnel will supervise treatment and pain management.

Housing and sanitation

Dogs and cats and other legal domestic companion animals will be housed at the animal shelter or other specialized shelters. Animals should be housed individually and separated by species and sex. Bedding should be provided when appropriate. Animal enclosures should be kept clean and dry. Portable cages may be used to provide temporary shelter. Temporary dog runs may be created using chain link panels obtained from construction companies or businesses that rent temporary fencing. The chain link panels should be 6 to 8 feet long with no gap along the bottom. Manure disposal will be in accordance with county and state regulations.

Zoonoses concerns

Zoonoses are diseases which can be transmitted from animals to people and from people to animals. Some of the risks from domestic pets are: internal and external parasites, leptospirosis (which can be shed in urine), enteric pathogens such as cryptosporidia and giardia, and rabies. Careful handling and disposal of animal wastes is important. Contaminated water can be a source

of pathogens, therefore caretakers should use caution in handling animals with diarrhea and never consume water from an unapproved source. Any animal bites should be reported and handled with the utmost of precaution by appropriate medical personnel.

Euthanasia and disposal

The recommended method of euthanasia for dogs and cats is with an appropriate chemical injection or by other acceptable methods. Qualified personnel will perform euthanasia. Because of the mass injuries that can occur in a disaster, the volume of chemical euthanasia solution or other euthanasia compounds on hand may be exhausted early. Should this occur, acceptable alternate euthanasia methods will be used (see the American Veterinary Medical Association's Panel on Euthanasia report). Records will be kept on all euthanized animals. Citizens who are missing an animal will have access to those records which may help identify their animal. Animal carcasses will be disposed of according to established Animal Control procedures. Refer to Michigan Compiled Laws Act 239, Public Acts 1982, "Bodies of Dead Animals" and Michigan Department of Agriculture's Mass Carcass Disposal Plan for disposal requirements.

APPENDIX H - VETERINARY RESOURCES

MDA STATE VETERINARIAN
Dr. Steve Halstead, DVM
(517) 373-1077
After hours emergencies: 517-373-0440

USDA-APHIS
Dr. Reed Macarty, AVIC
(517) 324-5290
USDA Hotline: 866-536-7593

ACADEMIC VETERINARIANS
Michigan State University College of Veterinary Medicine
Diagnostic Center for Population & Animal Health – (517) 353-1683
Large Animal Clinic (24 hr) – (517) 353-9710
Small Animal Clinic (24 hr) – (517) 353-5420

PRIVATE VETERINARIANS

Veterinary Clinic Name: _____
Veterinarian(s)name(s): _____
Address: _____
Clinic phone: _____ emergency phone: _____
Species treated (check all that apply)
 Companion Avian Exotic Equine Livestock Cervid Other

Veterinary Clinic Name: _____
Veterinarian(s)name(s): _____
Address: _____
Clinic phone: _____ emergency phone: _____
Species treated (check all that apply)
 Companion Avian Exotic Equine Livestock Cervid Other

Veterinary Clinic Name: _____
Veterinarian(s)name(s): _____
Address: _____
Clinic phone: _____ emergency phone: _____
Species treated (check all that apply)
 Companion Avian Exotic Equine Livestock Cervid Other

Veterinary Clinic Name: _____
Veterinarian(s)name(s): _____
Address: _____
Clinic phone: _____ emergency phone: _____
Species treated (check all that apply)
 Companion Avian Exotic Equine Livestock Cervid Other

APPENDIX I – VOLUNTEER RESOURCES (Note: emergency management should seek and use volunteers who are animal care professionals and/or credentialed animal responders. The use of non-trained people may result in increased numbers of injuries, animal losses and animal mishandling and should therefore be avoided)

Name: _____
Address: _____
Phone number: Cell: _____ Home: _____ Alt: _____
Animal Care Experience: _____

Name: _____
Address: _____
Phone number: Cell: _____ Home: _____ Alt: _____
Animal Care Experience: _____

Name: _____
Address: _____
Phone number: Cell: _____ Home: _____ Alt: _____
Animal Care Experience: _____

Name: _____
Address: _____
Phone number: Cell: _____ Home: _____ Alt: _____
Animal Care Experience: _____

Name: _____
Address: _____
Phone number: Cell: _____ Home: _____ Alt: _____
Animal Care Experience: _____

Name: _____
Address: _____
Phone number: Cell: _____ Home: _____ Alt: _____
Animal Care Experience: _____

APPENDIX J - LOCAL ANIMAL RESPONSE GROUP

County Emergency Manager

Name: _____
Address: _____
Phone: (Work) _____ (Cell) _____ (Home) _____
E-mail address: _____

Spartan County Animal Control

Name: _____
Address: _____
Phone: (Work) _____ (Cell) _____ (Home) _____
E-mail address: _____

MDA-AID veterinarian

Name: _____
Address: _____
Phone: (Work) _____ (Cell) _____ (Home) _____
E-mail address: _____

Michigan State University Extension

Name: _____
Address: _____
Phone: (Work) _____ (Cell) _____ (Home) _____
E-mail address: _____

Spartan County Public Health

Name: _____
Address: _____
Phone: (Work) _____ (Cell) _____ (Home) _____
E-mail address: _____

Private Veterinarian

Name: _____
Address: _____
Phone: (Work) _____ (Cell) _____ (Home) _____
E-mail address: _____

Humane Society Representative

Name: _____
Address: _____
Phone: (Work) _____ (Cell) _____ (Home) _____
E-mail address: _____

OTHER ANIMAL RESPONSE CONTACTS/ADVISORS (AS NEEDED)

MDA State Veterinarian

Dr. Steve Halstead, DVM
(517) 373-1077

MDA Emergency Management Coordinator

Brad Deacon – (517) 241-4085

MDA After Hours Hotline

(517) 373-0440

MSU Extension

Emergency Management Coordinator

Dr. Mark Hansen – (517) 432-7699

MSU Dept. of Animal Science

(517) 355-8383

USDA-Animal plant health inspection service

(517) 324-5289
24 hr. Hotline (866) 536-7593

MDA Food & Dairy Division

(517) 373-1086 – dairy
(517) 373-1060 - food

Spartan County Hazmat Team

(Phone number)

MDA Agriculture Pollution Emergency Hotline

(24 hr) 1-800-405-0101

ANIMAL DISASTER RESPONSE TRAINING

Michigan Humane Society

Offering animal disaster response training in conjunction with several national organizations.
For information: 1-866-MHUMANE (866-648-6263)

WEB RESOURCES

Michigan Medical Veterinary Association

www.michvma.org (emergency preparedness)

Michigan State University College of Veterinary Medicine Animal Health Information

cvm.msu.edu/hinfo.htm