

# **DRAFT**



**STATE OF MARYLAND  
STANDARD OPERATING PROCEDURES FOR:  
ESF 16  
ANIMAL PROTECTION**

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**Primary Agency:** Maryland Department of Agriculture (MDA)

**Support Agencies and Resources:**

State Resources: Maryland Department of Transportation (MDOT)  
Maryland Department of the Environment (MDE)  
Maryland State Police (MSP)  
Maryland Military Department (DMIL)  
Maryland Department of Health and Mental Hygiene (DHMH)  
Maryland Department of Natural Resources (DNR)  
Maryland Emergency Management Agency (MEMA)

Federal Resources: United States Department of Agriculture (USDA)  
Humane Society of the United States (HSUS)  
Federal Emergency Management Agency (FEMA)

Professional and  
Private Resources: American Red Cross (ARC)  
VA-MD Regional College of Veterinary Medicine (VMRCVM)  
Maryland Veterinary Medical Association (MVMA)  
Maryland Animal Disaster Planning Advisory Committee (ADPAC)  
Veterinary Medical Assistance Team (VMAT)  
Maryland Volunteer Organizations Active in Disasters (MDVOAD)

I. Introduction

A. Purpose

1. To coordinate the protection of animals and the resolution of any animal issues which arise as a result of a natural or man-made disaster in the State of Maryland and to disseminate essential information pertinent to animal care.

B. Scope of Operations

1. Support for animal protection includes the collaboration and coordination among State animal health related agencies, agriculture industries, universities, other government officials and private veterinarians that will assist in the resolution of animal issues that arise during a disaster.
2. Potential operations will include: rescuing stray and abandoned animals, tracking occupancies at boarding facilities, coordinating the emergency provision of essential medical supplies and drugs, organizing the participation of animal relief organizations in response and recovery, establishing temporary shelters, ensuring adequate supplies of food are available at boarding facilities and temporary shelters, providing grief counseling to victims whose animals are lost, injured, or killed, and monitoring, feeding, and diagnosis of animals; as well as, quarantine, medical care, euthanasia, forensic examination, and disposal of dead animals.

C. Laws and Authorities

1. The Code of Maryland Regulations (COMAR):
  - Article 15 - Title 11.01-17,

II. Operating Principles

A. Situations

1. A disaster event may cause displacement, injury and/or death to the animal population in Maryland and create a need for temporary care of the affected animals.
2. The extent of damage may interrupt the normal methods of animal protection in Maryland.
3. The extent of damage in the affected area will influence the strategy and ability to provide animal care.
4. Disaster related damage to private property and public infrastructure may result in the disruption of normal animal care activities, deaths of large numbers of

animals, zoonotic diseases, and the appearance of other secondary infections.

5. Inadequate or inoperative animal care services may arise during or after a disaster event. Results may include increased risks to animal owners and first responders through unauthorized entry or re-entry into impacted areas.
6. Directives generated will be shared with Federal, State, and local officials, and listed professional support.
7. General information and recommendations will be provided to public information officers (PIOs) to share with media outlets.
8. Animal sheltering activities will be coordinated at the county level.
9. Medicines and supplies will be provided through contracts with the Maryland Veterinary Medical Association.
10. Procurement of additional supplies will be conducted in accordance with federal and state laws and regulations.
11. The emergency support function (ESF) team leader may appoint supplemental staff to coordinate deployment of specific resources.

**B. Concept of Operations**

1. The implementation of quarantine procedures is the responsibility of MDA. Procedures are to include, but are not limited to: animal movement restrictions, animal product movement restrictions, and the establishment of animal quarantine zones and/or boundaries.
2. The distribution of preventative and curable veterinary medicines will be coordinated by MDA through the MVMA.
3. Methods for euthanasia of animals are dependent on the number, age, and species of animals, and their location. Only humane methods of euthanasia will be selected.
4. Methods for the disposal of animal carcasses will be coordinated with DHMH and MDE. In the event of a zoonotic disease outbreak, DHMH will determine the best method for the disposal of dead animals consistent with the prevention of transmissible diseases to humans. The methods of disposal are dependent on the number, size, and species of animals; as well as, the cause of death. DHMH will determine the appropriate safety procedures and ensure the adequate protection of workers. MDE would determine the location of such activities based on the location of the animals, the number of animals, and the type of animals. Disposal of animal carcasses onsite is preferred.

5. Decontamination/disinfection recommendations will be provided by MDA and DHMH for dissemination where indicated.

C. Organization

1. Primary Department or Agency (MDA)
  - a. Will act as team leader in policy discussions, interaction with other ESF members, and other matters.
  - b. Analyze and evaluate research relating to animal issue resolutions.
  - c. Establish liaison with ESF 5 (Information and Planning), ESF 8 (Health and Medical), ESF 15 (Donations Management), and Debris Management.
  - d. Ensure that team members receive shift relief from their respected organizations.
  - e. May act in partnership with USDA to address some of these responsibilities.
  - f. MDA will notify MEMA in the event a disease may be present or an imminent threat to the livestock population in Maryland.
  - g. Conduct livestock disease assessments at the site of the event to determine needs and priorities.
  - h. If assessments indicate that a state-level response and recovery operation may be required, MEMA will notify the appropriate organizations listed in this plan based on the needs of the event.
  - i. Notify MEMA when a livestock disease sample being sent to Plum Island for analysis is likely to be a dangerously contagious or infectious and reportable disease.
  - j. Assist MEMA, USDA, the Maryland Military Department, MDOT and other state agencies as needed in cooperating in the location of a staging area (s) outside of the quarantined area.
  - k. MDA will coordinate with its peer organizations in the USDA for assessment of the situation and regularly report the results of the assessment(s) back to MEMA.
  - l. Coordinate state-level livestock disease emergency response and recovery.
  - m. Provide logistical support for state response and recovery personnel in the field.
  - n. Coordinate with federal USDA for emergency programs and to provide liaison between federal, state and local organizations when required.
  - o. Determine critical feed requirements and supply and delivery sources.
  - p. Test and/or dispose of contaminated feed, livestock and agricultural products.
  - q. Provide/support efforts to trace the disease.
  - r. Coordinate with appropriate organizations for the deployment of inspectors, and veterinarians for agricultural response and recovery.
  - s. Establish and/or coordinate appropriate regulatory controls.
  - t. Provide advisories and related public information.

- u. Issue quarantine orders as needed.
  - v. Coordinate with law enforcement organizations for site security and related issues.
  - w. Maintain ongoing animal agriculture surveillance of affected communities in order to rapidly identify and address disease-related problems.
  - x. Provide information and direction to support agencies on livestock euthanasia, livestock disposal, decontamination, site security, biosecurity training, the purchase of biosecurity supplies and related issues throughout emergency response and recovery.
2. Support Departments or Agencies - Primary and support Agencies will coordinate with each other in the SEOC to ensure the most effective use of personnel and equipment, to avoid redundant activities and to cooperate on emergency missions. Support agencies need to keep track the hours their own staff has dedicated to the operation as well as documenting resources expended.
- Attorney General
    - a. Provide legal advice to state and county organizations concerning livestock disease issues including animal movement restrictions, quarantine orders, livestock euthanasia and disposal, indemnification and human resource issues.
    - b. Provide a team of personnel to address legal challenges as needed.
  - Maryland Military Department
    - a. Assist in the disposal of diseased animals based upon guidance from MDA/USDA.
    - b. Provide biosecurity training to personnel designated for operations in the affected area based upon training provided by MDA/USDA.
    - c. Assist MDA with law enforcement support as requested.
    - d. Assist with euthanasia procedures for infected livestock.
    - e. Coordinate with the Department of Defense (DOD) when activated for this emergency.
    - f. Coordinate with DAS to obtain and distribute biosecurity supplies as needed.
    - g. Provide personnel to assist in response and recovery operations as needed at the site, at staging areas in local EOCs and at the SEOC.
    - h. Ensure the decontamination of personnel working at the site based upon MDA/USDA guidance.
  - Maryland Department of General Services
    - a. Assist in the identification of resource providers and purchasing on supplies, equipment and services needed during a state-level livestock disease emergency. (Refer to ESF #7 Resource Support in the Maryland Emergency Operation Plan if additional information is needed.)

- b. Coordinate with MEMA and MDA for reimbursement from the federal government.
- Maryland Department of Health and Mental Hygiene
  - a. Coordinate with MDA if a zoonotic condition exists
  - b. Support public information and rumor control efforts.
  - c. Support biosecurity training for personnel at the site based upon training provided by MDA/USDA.
  - d. Provide veterinary and epidemiologic support to MDA as requested during the emergency.
  - e. Assist MDA and DGS in obtaining biosecurity supplies when requested.
  - f. Provide personnel to assist in response and recovery operations as needed at the site, at staging areas and at the SEOC.
- Maryland Department of Natural Resources
  - a. Provide surveillance at parks and natural areas for diseased animal identification.
  - b. Test and or dispose of contaminated items and wild animals.
  - c. Conduct wild animal assessments at sight of event to determine wild animal needs and priorities.
  - d. Establish appropriate regulatory wild animal controls.
  - e. Support public information and rumor control efforts throughout the emergency.
  - f. Provide biosecurity training to personnel designated for operations in the affected area based upon training provided by MDA/USDA.
  - g. Support animal movement restrictions in Maryland throughout the emergency.
  - h. Assist MDA with law enforcement support as requested.
  - i. Assist with euthanasia procedures for infected livestock.
  - j. Assist with the disposal of infected livestock.
  - k. Assist in obtaining biosecurity supplies.
  - l. Provide personnel to assist in response and recovery operations as needed at the site, at staging areas and at the SEOC.
- Maryland Emergency Management Agency
  - a. Support MDA by providing statewide coordination during livestock disease response and recovery emergencies.
  - b. Support public information and rumor control efforts throughout the emergency
  - c. Coordinate with MDA for the provision of biosecurity training to support agencies and provide biosecurity training to agency personnel designated for operations in the affected area.
  - d. Assist in finding contractors for the disposal of livestock.
  - e. Assist in obtaining biosecurity supplies
  - f. Provide personnel to assist in response and recovery operations as needed at the site, at staging areas in local EOCs.

- g. Please refer to the Maryland Emergency Operations Plan (Maryland EOP) and the Maryland Emergency Operations Center Standard Operating Procedures (EOC SOP) for procedures on SEOC activation and operations.
  
- Maryland State Police
  - a. Support the provision of law enforcement to quarantined areas and related sites during livestock disease emergencies as directed by the Governor.
  - b. Provide biosecurity training to personnel designated for operations in the affected area based upon training provided by MDA/USDA.
  - c. Assist MDA with law enforcement support as requested.
  - d. Assist with euthanasia procedures for infected livestock.
  - e. Provide personnel to assist in response and recovery operations as needed at the site, at staging areas and at the SEOC.
  - f. Coordinate with local law enforcement throughout response and recovery.
  
- Maryland Department of Transportation
  - a. Assist in the movement of state resources during livestock disease emergencies.
  - b. Provide biosecurity training to personnel designated for operations in the affected area based upon training provided by MDA/USDA.
  - c. Assist in the disposal of infected livestock.
  - d. Provide personnel to assist in response and recovery operations as needed at the site, at staging areas and at the SEOC.
  
- Maryland Department of the Environment
  - a. Provided assistance and advice with respect to the disposal of diseased animals.
  
- Federal Emergency Management Agency
  - a. Provide a Senior FEMA Official at the SEOC who will coordinate the assistance that can be provided by federal organizations listed in the Federal Response Plan (FRP) in the event of a livestock disease emergency in Maryland.
  
- U S Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) and Regional Emergency Animal Disease Eradication Organizations (READEOs).
  - a. USDA responsibilities for livestock disease response and recovery are addressed in their internal plans and procedures, including the following, the USDA “Red BOOK”, i.e. Foot and Mouth Disease Emergency Guidelines, revised October 1991 and the READEO Manual.

**D. Public Information and Rumor Control**

1. The Public Information and Rumor Control Team is composed of personnel from MDA (lead), MEMA, DNR, DHMH, FEMA, USDA, and public information personnel in local emergency operations centers (EOCs) in the affected areas.
2. A Joint Information Center (JIC) will be maintained at the State Emergency Operations Center (SEOC) throughout the emergency. The JIC will be headed by the PIO from MDA (the Lead Agency) and supported by PIOs from all other organizations having responsibilities to address the livestock disease hazard. Organizations on this team will ensure that maps, guidance, alerts and warnings concerning livestock disease outbreaks in Maryland will be widely distributed and available to the public.

**E. Emergency Response Coordination**

1. The Emergency Response Coordination Team is composed of personnel from the MEMA (lead), Governor's Office (OGOV), USDA, FEMA, and MDA. Unified command may be activated in the SEOC and at the site of the emergency. Overall statewide emergency response coordination of the livestock disease response and recovery effort is the responsibility of MEMA.
  - a. In the SEOC, MEMA coordinates with the Lead Agency, MDA, for livestock disease emergency response and recovery.
  - b. On the local level, emergency response coordination is the responsibility of the local emergency management organizations in the affected jurisdictions. Agents of the Farm Extension Service will act as a link between local emergency management personnel and MDA and USDA personnel working at the site.
2. Biosecurity Training
  - a. The Biosecurity Training Team is composed of personnel from the following organizations, MDA (lead), DMIL, MEMA, MDE, DNR, DHMH, MDOT, MSP, and USDA.
  - b. MDA is responsible for providing biosecurity training required for personnel who may be on site during a livestock disease emergency. This training is best provided in advance of a reported livestock disease in Maryland. Support organizations receiving the training will be responsible for maintaining the training of their personnel while in the field. MDA will also provide a written guide on biosecurity procedures to be used by law enforcement/site security personnel in the field.
3. Veterinary Support
  - a. The Veterinary Support Team is composed of the following organizations, MDA (lead), DHMH, USDA, and VMAT.
  - b. Organizations on this team are responsible for identifying personnel with the qualifications to conduct the initial investigations that identify

diseased livestock, for livestock depopulation and for supporting ongoing veterinary medical activities throughout the emergency.

4. Animal Movement Restrictions in Maryland, Interstate Movement Restrictions, and International Movement Restrictions
  - a. The Animal Movement Restrictions Team is composed of personnel from the following organizations, MDA (lead), OGOV, DMIL, MSP, MDE, DNR, and USDA.
  - b. Preventing the movement of infected livestock and other infected animals is critical if the spread of disease is to be contained, controlled and eliminated. The team will assist with containment of the infection through on-site personnel, decontamination procedures and roadblocks to prohibit the infection from spreading to other areas within the state or other states. Within the state, MDA in conjunction with the Governor's Office has the legal authority to enforce animal movement restrictions. USDA has the legal authority on the federal level for interstate and international animal movement control and will inform Maryland of any incidents or restrictions that may affect the state through MDA.
  
5. Law Enforcement Support
  - a. The Law Enforcement Support Team is composed of personnel from the following organizations, MDA (lead), OGOV, MSP, DGS, the Attorney General (AG), DMIL, and DNR.
  - b. Once a disease is confirmed at a site in Maryland, USDA in cooperation with MDA will determine a quarantine perimeter around the site and a buffer zone. This boundary will be mapped on computer and distributed to local emergency management officials.
  - c. Large numbers of law enforcement personnel may be required to provide security around the perimeters of these areas in order to prevent the spread of the disease and enforce legal requirements. Unified command at the site will determine the numbers of personnel needed, the shifts they will maintain, the protocols they will follow (as recommended by USDA). The unified command structure will also provide logistical support for these personnel. MSP will act as aides to the local law enforcement organizations in the jurisdictions where they are assigned.
  
6. The Livestock Euthanasia and Disposal Team
  - a. The Livestock Euthanasia and Disposal Team is composed of MDA, DMIL, MEMA, MDE, DNR, DHMH, MDOT, USDA, and VMAT.
  - b. The following actions should be taken while waiting for the arrival of the appraisal personnel and euthanasia and disposal teams.
  - c. Actions in advance of appraisal and depopulation at the site of the contamination
    - 1) Review the layout of the farm with the owner and lock or secure all gates.

- 2) Construct necessary corrals and fences and consider the need to move animals.
  - 3) The disposal area should minimize the movement of animals and equipment.
  - 4) Determine the amount of hay or feed that may need to be destroyed and the need for manure disposal.
  - 5) The disposal area should minimize the contamination of well water and danger from fire and smoke.
  - 6) Determine what decontamination equipment will be needed and arrange for delivery
  - 7) Determine the need for rodent and vector control at the site.
  - 8) Institute initial tracing procedures by collecting movement data and providing it to USDA.
  - 9) Institute all measures to ensure that no contamination leaves the site.
  - 10) Locate a guard at the entrance.
  - 11) Begin excavating a burial trench which should be at least 7 feet wide and 9 feet deep. At this depth 14 square feet of floor space is required for each bovine carcass (5 mature hogs or sheep = one bovine carcass). The site should be inaccessible to animals and removed from populated areas. The site should not be used for agricultural purposes and it should be clearly marked and protected.
- d. Methods for the euthanasia of infected animals are presented in Appendix F. Humane procedures must be used. It is not advisable that the owners or the public view the euthanasia process. Euthanasia should be performed by a veterinarian whenever possible or by personnel trained by a veterinarian. The euthanasia and disposal process will be under the supervision of MDA and MDE.
- e. The following are disposal methods that may be used for euthanized livestock. MDA and MDE will supervise livestock disposal operations and provide the detailed instructions to livestock disposal personnel at the site.
- 1) Burial - This is the preferred method of disposal and should be used whenever possible.
  - 2) Burning - This is a difficult and expensive method in terms of labor and materials used and should be used only when burial is not feasible. Large incinerators may be useful if they are close to the affected premise.
  - 3) Rendering - This is the most economical method of livestock disposal but moving the carcass to the rendering plant may present serious problems depending upon the disease.

7. Indemnification

- a. The Indemnification Team is composed of MDA, OGOV, MEMA, and USDA. The team addresses the legal requirements addressed in the Code of Federal Regulations (CFR) Title 9.
- b. Animal products and materials destroyed as a result of the disease will be appraised by professional appraisers. The appraisals must reflect the interests of the owner, the state and the federal government and be consistent with market values. Appraisal teams will be assigned to each affected premise as soon as possible after the diagnosis has been made. No animals may be depopulated until the appraisals have been made. The appraisal team must change into protective clothing outside the quarantined area when they arrive to conduct appraisals. The clothing should include coveralls, boots, hats and masks. The appraisal team should have USDA supplied Appraisal Packets with a vial of ethylene oxide so the packet can be decontaminated when they leave. USDA will provide detailed instructions to the Appraisal Team upon activation.

8. Biosecurity Supplies

- a. The following organizations make up the Biosecurity Supply Team; MDA, DMIL, MEMA, MDE, DNR, DHMH, and USDA, and FEMA. State organizations may purchase need supplies and then submit their reimbursement requests to USDA. USDA will receive federal funding for the emergency once the Secretary of Agriculture declares an emergency. FEMA will assist by locating and providing federal resources for the emergency effort.
- b. The following are supplies commonly required for livestock disease emergencies.
- c. Staging areas for supplies will be determined by MDA in coordination with MEMA, MSP, MDOT, USDA and other organizations operating at the near the quarantine.

9. Recovery

- a. The following organizations will have responsibilities in recovery activities for a livestock disease emergency in Maryland: MDA, DMIL, AG, DHMH, DNR, MDE, MEMA, MDOT, VMAT, FEMA, and USDA.
- b. Recovery issues will include but are not limited to reimbursement activities between state and local organizations and the USDA, mental health concerns for animal owners, and response and recovery personnel, Ongoing security and decontamination issues for large burial sites, tracking legal issues and long-term economic recovery for Maryland.

F. Levels of Emergency

For an animal emergency in the State, MDA utilizes levels or stages to designate which activities will take place in the event of imminent or actual hazards. The Levels for Maryland in the event of an animal emergency will be the following:

**Level 1**

A highly infectious animal disease has been identified in a country or countries outside the continental United States. MDA determines, because of its highly infectious nature, that the disease could contaminate persons or items coming to the United States. Level 1 assessments will continue until the threat has been reduced to a level where special security measures are no longer required at ports, airports and border crossings.

MEMA will coordinate assessments with MDA and notify and coordinate with other State organizations listed in this plan in order to activate appropriate interagency training programs, to conduct preparedness meetings and to review the availability of needed resources.

**Level 2**

This action level occurs when a highly infectious animal disease has been identified in the continental United States but it is not in Maryland or in any states adjacent to Maryland, or there is a suspicion on the part of MDA that a highly infectious animal disease is in Maryland. Level 2 assessments will continue until the threat has been removed from the continental United States. The USDA Secretary may declare an emergency in accordance with title 21 of the US Code. All states will be notified and the federal government will cooperate with states to identify, seize and quarantine exposed animals. Federal funds will be obligated for this effort through the USDA and federal quarantines may be used to stop the interstate and international movement of diseased animals. An extraordinary emergency may be declared allowing additional federal activities within a state if the state is not taking proper control measures.

OGO may restrict, by proclamation, the importation of animals into Maryland. Maryland will notify appropriate organizations. Assessments may involve regular meetings with appropriate state agencies in the assessment room and increased investigations in ports of entry and at highway/roadway checkpoints in Maryland. In addition MDA will alert livestock owners in Maryland of the increased need for monitoring their herds for symptoms.

**Level 3**

A highly infectious animal disease that could be a significant threat to the livestock and economy of Maryland has been confirmed in the State or in border areas of states adjacent to Maryland. Level 3 may also be activated for some diseases, like Foot and Mouth Disease, when a “highly likely” case has been sent to Plum Island for analysis but has not yet been confirmed.

- OGOV will issue a Declaration of Emergency
- Examination and testing of livestock will be expanded beyond the initial site in order to detect, as soon as possible, any spread of the disease.
- Law enforcement will begin enforcing the quarantine.
- MEMA will notify response and recovery personnel of SEOC activation.
- USDA teams will begin operations in Maryland in cooperation with MDA.
- Activation of unified command.
- Activation of Appraisal personnel.
- Activation of Animal Euthanasia and Disposal Team.
- Track all movements of personnel and animals at the site.

#### **Level 4**

A highly infectious animal disease has spread to more than one site in Maryland. Continue activities under Level 4 and include the following.

- Full activation of the SEOC including personnel from FEMA Region III and the possible activation of a Disaster Field Office (DFO).
- Expand the unified command to include establishment of local incident command posts.
- Activation of vehicle and personnel decontamination sites.
- Maintain 24-hour quarantine enforcement for each site.
- Provide logistical support for response personnel.
- Establish staging areas.
- Establish local testing labs.
- Establish a JIC

### **G. Relationships between Levels of Government**

#### **1. Federal**

##### **a. USDA**

- 1) The USDA is the lead federal agency for livestock disease concerns. USDA in cooperation with MDA has primary responsibility for initial investigations, diagnosis, disease investigation, epidemiology, notification, declarations of emergency and/or extraordinary emergency, quarantines and related movement controls, financing, reimbursing and administrating operations, provision of supplies and equipment, appraisals, herd depopulation, disinfection, disease and vector control.
- 2) USDA will require logistical support when it comes to Maryland including shelter for USDA personnel working at the site of the emergency. One or more rooms will be required for an office depending upon the scope of the contaminated areas. There must be space for parking, vehicles and supplies, communications and eating facilities. This site should not be located in an area where traffic will be a problem. Additional telephone service may also be needed at these operational sites. Local EMA Directors will be

notified of the arrival of USDA and their location in the community.

- 3) Personnel from USDA may include a Disease Specialist, a Military Support Officer, an Information Officer, a Wildlife Officer, Food Safety and Inspection Service personnel, Field Operations personnel, Epidemiological evaluation personnel, trainers, experts in economic and environmental impacts, computer support staff, field veterinarians.

b. FEMA

- 1) FEMA Region III will provide a Senior FEMA Official at the Maryland EOC when the USDA declares an emergency. FEMA will assist Maryland by identifying federal organizations that can assist in various missions during livestock disease response and recovery activities.
- 2) Coordination with federal organizations responding to a livestock disease outbreak in Maryland may occur in the SEOC, at the site of the disaster and in the Disaster Field Office (DFO) if one is established by FEMA.
- 3) Federal organizations addressing livestock disease outbreaks will support state assessment, response and recovery activities and will accept emergency requests and missions from the state.

2. State

- a. Livestock disease response and recovery organizations maintain a working relationship throughout the emergency to ensure that emergency needs are, identified, assessed, prioritized and addressed.
- b. Livestock disease response and recovery organizations will coordinate with federal peer organizations and similar organizations from adjacent states during the emergency.

3. Local

- a. Local-level emergency requests for state resources and services communicated to the SEOC will be directed to Lead Agency MDA personnel and other agencies as appropriate. (Refer to the Emergency Operations Center Standard Operating Procedure)
- b. Local EMAs in affected areas will activate their EOCs as needed to provide support for federal, state and local livestock disease operations.

4. The Comparison Chart on the next page lists and compares organizations with emergency management responsibilities for livestock disease response and recovery that are on the state, federal and local levels. During emergencies these organizations may work together as teams in order to act as expeditiously as possible to identify, control and eradicate the disease and contain/control secondary events related to the disease. This comparison chart ensures that these organizations have the proper interface when activated during an emergency.

III. Procedural Considerations

**A. Sheltering (Expand).**

**B. Temporary Shelters or Movable Animal Care Centers (Expand).**

**C. Quarantine Operations**

1. Quarantine Protocols - If an infected animal is identified as the result of an investigation, the Director of MDA or his authorized representative may issue quarantine orders. Quarantines declared by USDA may include entire states or several states for 72 hours or until the extent of the disease outbreak has been determine. Quarantines should also be issued by MDA for livestock concentration points that may have been exposed to the disease until the sites can be inspected. No animal can be removed from the geographic location described in the quarantine order without written permission from the MDA Secretary or his authorizes representative. The quarantine order shall contain the following information.
  - a. The name and address of the person owning or having custody of the quarantined animal if known.
  - b. A description of the quarantined animal.
  - c. A description of the premise of the quarantined animal and/or the means of conveyance affected by the quarantine.
  - d. The reason for the quarantine.
  - e. The terms and conditions applicable to the quarantine.
  - f. A notice to the effect that persons adversely affected by the quarantine order may request a hearing to review the order.

The quarantine order remains in effect until a written notice of release is issued by MDA. The owner of the quarantined animal must prove that the contaminated area and any other related items have been disinfected before the written notice of release can be issued.

2. Determination of the Quarantine Area
  - a. USDA is responsible for determining the quarantine area. The quarantine area includes a high-risk zone of 3-5 miles beyond all known infected herds and a buffer zone of 10-15 miles, which extends from the periphery of the high-risk zone to the outer perimeter of the quarantined area.
  - b. USDA in cooperation with MDA will determine the exact size and configuration of the quarantine area. Maps of the quarantine area will be provided to media outlets and distributed in the affected area. In some instances, wind speed and other environmental factors may affect the boundaries of the quarantined area. MDA and MEMA will provide

mapping/GIS and information distribution to support the security of the quarantined area.

Inspection stations will be established strategically at all transport routes leaving the buffer zone and all vehicles will be cleaned and disinfected at the inspection stations. Livestock in the buffer zone should be inspected twice weekly for disease symptoms.

- D. Euthanasia of Affected Animals (See Appendix F).
- E. Disposal of Animal Carcasses (**To be developed**).
- F. Decontamination of Personnel (**Expand**).

These procedures are vital to emergency response for this hazard and must be strictly observed.

1. Close and lock all entrances at the contaminated premise except one that is strategically located and post a guard.
2. Post quarantine and warning signs in the high-risk and buffer zones.
3. Allow only authorized personnel wearing proper protective clothing on the premise.
4. No one may leave the quarantine area without undergoing decontamination.
5. Provide footbaths, pressure sprays, spray rigs, brushes, sponges, disinfectants etc. for decontamination.
6. Confine pets to prevent the spread of the disease.
7. Extermination measures may be necessary to prevent the disease being spread by wild animals.
8. Stop movements of milk, meat, eggs, bones, hides, hay, straw, feed sacks, manure and other items that may transmit infection from the premise.
9. Spray road surfaces that might be contaminated outside the premise.
10. Remove guards when depopulation and disposal procedures have been completed and the premise has been thoroughly soaked with disinfectant.
11. Ensure all personnel and vehicles are disinfected before closure.
12. USDA and MDA may provide modifications of these instructions based upon their assessments.

**APPENDIX A  
CONTACT LIST**

**DRAFT STATE OF MARYLAND  
STANDARD OPERATING PROCEDURES  
EMERGENCY SUPPORT FUNCTION 16 – ANIMAL PROTECTION**

7/21/2006

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John Brooks					<a href="mailto:jrbdvm74@comcast.net">jrbdvm74@comcast.net</a>	

**APPENDIX B  
AVMA GUIDANCE ON EUTHANASIA**



AMERICAN VETERINARY MEDICAL ASSOCIATION  
1931 N. MEACHAM ROAD, SUITE 100 - SCHAUMBURG, ILLINOIS 60173-4360  
PHONE (847) 925-8070 - FAX (847) 925-1339 - www.avma.org

March 12, 2003

Dr. Jacob Casper  
9809 Middle Mill Dr.  
Owings Milis, MD 21117

Dear Dr. Casper:

Permission has been granted to you to publish, photocopy and/or distribute the 2000 American Veterinary Medical Association (AVMA) Panel Report on Euthanasia in its entirety as a reference in the Euthanasia appendix of your State foreign animal disease response plan, provided that the following conditions are met:

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If you have any questions, please let us know. I can be reached at (800) 248-2862 ext. 6624 (jhorvath@avma.org).

Sincerely,

Julie Horvath  
Staff Assistant, Division of Education and Research

cc: Diane Fagen, AVMA Librarian

**APPENDIX C**

**HAZARDOUS MATERIAL INCIDENT RESPONSE PROTOCOL**

## **Hazardous Materials Incident Response Protocol**

The purpose of this document is to provide guidelines for individuals/state agencies that may address and respond to hazardous materials incidents involving animals.

To initiate a response to a hazardous materials incident, dial 911. If the material is known, ensure that proper identification of the material is reported. Similarly, if the item is unknown, report that information as well. To review the Materials Safety Data Sheet (MSDS) on a known substance access this information at: <http://www.msdsonline.com>. This is a free service, however, you do have to initially register. Therefore, it is recommended that you register for this service prior to actually needing it. Reviewing the MSDS information will allow a more coordinated and informed response effort. Another source of information regarding the response to various hazardous materials is the 2000 Emergency Response Guidebook. It is available, free of charge, from the United States Department of Transportation, Office of Operations at 202-366-4065.

The local Fire Department and local Hazmat team will respond to the reported incident. Any time a hazardous materials incident has been reported, the local Fire Chief is the individual in charge at the scene.

It is the responsibility of the various state agencies to work with the Fire Chief or Maryland Department of the Environment (MDE) to obtain the appropriate specimens for diagnosis, ensure the safety and well being of the animal(s), veterinarian, veterinary staff, and others involved in the incident, to assist with any transportation issues, and to ensure that any additional needs such as decontamination or euthanasia are addressed to effectively deal with the incident.

### **LIVE ANIMAL SITUATIONS**

#### *Small Animals:*

The Department of Health and Mental Hygiene (DHMH) representative will assist the Fire Chief or MDE with the procurement of specimens such as fur; the unknown, offensive material; obtaining blood and urine specimens; and/or uneaten food to assist with the diagnosis of the substance. If the State representative is unable to physically assist with the incident (due to geographic difficulties or scheduling issues) they will provide the necessary information to the attending veterinarian (by telephone) to assist MDE or the Fire Chief with specimen collection, ensuring that the health of the veterinarian and staff is maintained.

Fur, food and other non-biological specimens should be placed in clear zip-lock bags and appropriately labeled. For diagnostic purposes, submit non-biologic specimens (fur, food) to the Maryland Department of Agriculture (MDA), State Chemist. Coordinate this submission through Dr. Fidel Hegngi, Assistant State Veterinarian. Both red-top and purple-top tubes should be collected from the animal and appropriately labeled. In addition, urine should be placed in a sterile vial. These specimens should be transported to either the MDA Animal Diagnostic Lab in \_\_\_\_\_ or \_\_\_\_\_ for processing. MDA will share final laboratory

results with DHMH. All specimen collection should occur while wearing gloves and BEFORE decontamination!

Decontamination of people is the responsibility of the Haz Mat team. The DHMH representative will work with Haz Mat and the Fire Chief to establish appropriate facilities for the decontamination of animals. While wearing heavy rubber gloves and goggles (at a minimum. Tyvek suits and face shields may also be necessary), wash the animal with copious amounts of water and regular dish detergent. Frequently this is sufficient for decontamination purposes. Animals **MUST** be decontaminated prior to transporting them to another location or returning them to their owner.

Transportation of the animal is **NOT** the responsibility of the Fire Department. MDE can transport the animal *or* they can provide an escort for an individual to transport the animal to a final destination. The 24-hour contact number for **MDE is 1-866-633-4686**. If a State agency needs transportation or an escort, the agency representative should specifically request that MDE provide that assistance. Any fees associated with MDE's transportation response to a hazardous materials incident involving animals are the responsibility of the animal owner.

If an animal needs to be euthanized, the attending veterinarian or the State agency representative should make that decision; the animal should be euthanized in a humane manner.

*Large Animals:*

The State agency to assist with a large animal hazardous materials response is MDA. The procedure is similar to the one described above. The MDA representative will assist the Fire Chief or MDE with the procurement of evidence for diagnostic purposes. Specimens will be handled in an identical manner and submitted to either the MDA, Animal Diagnostic Lab in \_\_\_\_\_ or \_\_\_\_\_.

Decontamination may be more of an issue for large animals. However, the same procedure should be performed: while wearing personal protective equipment (PPE), wash the animal(s) with copious amounts of water and dish detergent. Coordinate this effort with the Haz Mat team since contaminated run-off will be a problem. For beef and dairy cattle, ensure that accurate information regarding withdrawal times of meat or milk is given to the producer.

Transportation issues are the same as above. Contact MDE for transportation or an escort. Ensure that the animal(s) is (are) decontaminated prior to transporting to another location or returning to a farm or the producer.

[Fidel and Jim: please feel free to add more here in case I overlooked something. Thanks!]

*Wildlife:*

The State agency to assist with a hazardous materials incident involving wildlife is the Maryland Department of Natural Resources (DNR). If any animals need to be sedated or tranquilized prior to working on them, the State Wildlife Veterinarian or their designee will

perform this task. Biological and non-biological specimens that are collection will be submitted to \_\_\_\_\_ for processing. Euthanasia will also be decided and performed by the same individual(s). [Cindy, please add more here. Should we mention that certain species are protected and should only be handled by appropriate authorities? What else am I missing?]

## **DEAD ANIMAL SITUATIONS**

### *Small Animals:*

Specimen collection should occur as described above under “LIVE ANIMAL SITUATIONS.” Once the animal has been euthanized, place in a heavy plastic bag and secure. Place this bag inside another heavy plastic bag and secure. The double-bagged animal is now able to be transported to the MDA Animal Diagnostic Lab for necropsy. An alternative method of containment is to use a human body bag. Mr. David Mason of Beloved Pet Cremation and Burial Service has generously donated 6 large and 6 small body bags for such a purpose. Such bags are even able to contain vapors. These supplies will always be available at his facility if needed.

Transportation of the deceased animal in its protective bag will occur directly by MDE or via an MDE escort. To ensure the safety of laboratory personnel, a necropsy will not be performed until the results of the substance analysis are complete. MDA will share all final results with DHMH.

### *Large Animals:*

Specimen procurement will occur as described above. The body bags may contain only smaller animals such as sheep, goats, calves, and foals. Dead larger animals may pose a transportation challenge. Larger animals will have to be decontaminated on site prior to relocating or transporting them to another area. This activity should be coordinated with Haz Mat as contaminated water run-off will be an issue.

### *Wildlife:*

The DNR representative or the designee will coordinate this effort. The body bags may be applicable for some wildlife. Other larger animals (i.e. bears) may have to be decontaminated on site prior to relocating. Necropsies of wildlife will be performed at \_\_\_\_\_.

## **24/7 Emergency Contact Information**

Please be aware that these phone numbers are to be used for official State business or for emergency/hazardous materials incidents **only**. Please do **NOT** distribute them to the public.

For hazardous materials incidents involving *large animals or livestock*, contact:

<b>I.</b>	Dr. James Fearer <b>Acting State Veterinarian</b> Maryland Department of Agriculture 301-334-2185 301-573-9119 (cell) 304-789-5842 (home) <i>OR</i>	Dr. Fidel Hegngi <b>Assistant State Veterinarian</b> MDA 410-841-5870 301-680-8988 (home) 443-497-0201 (cell)
-----------	--	--

For hazardous materials incidents involving *small animal issues or other public health concerns*, contact:

Dr. Tracy S. DuVernoy  
Acting State Public Health Veterinarian and  
Chief, Rabies and Vector-borne Diseases Division  
Maryland Department of Health and Mental Hygiene  
410-767-6703 *or* 410-767-6700 (after hours)  
410-408-7958 (beeper)  
301-593-6350 (home)  
301-466-9889 (cell)

*wildlife* contact:

Dr. Cindy Driscoll  
State Wildlife Veterinarian  
Maryland Department of Natural Resources  
410-226-5193  
410- 763-3450 (pager)

**State Chemist** Information for testing specimens collected during incident:  
Dr. Fidel Hegngi of MDA. See contact information above.

To obtain human body bags:

Mr. David Mason, Beloved Pet Cremation and Burial Service  
417 Shipley Road  
Linthicum, MD 21090  
410-691-2900

24-hour contact number for MDE for transportation issues: **1-866-633-4686**  
MDA, Animal Diagnostic Laboratories for necropsy services:

**APPENDIX D**  
**METHODS FOR DEPLOYING TEMPORARY ANIMAL SHELTERS**  
**(To Be Developed)**

**APPENDIX E**

**LIST OF SUPPLIES FOR HORSES, LIVESTOCK, AND DOMESTIC PETS**

**PERSONAL PROTECTIVE CLOTHING**

Tyvek splash resistant coveralls	boots	Nitrile gloves
Hard hat	Safety goggles	

**DECONTAMINATION AND CLEANING SUPPLIES**

Cleaning brushes	Buckets	Disinfectant
Plastic containers	Long-handled brushes	Heavy plastic bags
Manure forks	Scoop shovels	Scrapers
Flat shovels	Hoes	Heavy brooms
Power spray unit and tank	2 gal. gas can	Spray nozzles
Rubber gloves	Vinegar	Shop vac
Sponges	Bags of sMDA ash	Sodium Hydroxide
Liquid detergent	Sprayers	Steam cleaner
100' heavy-duty electrical extension cords and adapters		
50' lengths of ¾ pressure hoses		

**HEAVY EQUIPMENT**

Cables/heavy chains	Bulldozer	Backhoe
Trackhoes	Front-end loader	Forklift
Trucks and trailers	Fogging/spray trucks	

**FIRST AID SUPPLIES**

Compression wrap	10% iodine	Rubbing alcohol
Epsom salt	Square gauze	Peroxide
Betadine solution	Wheat bran*	Visine eyedrops
Antiseptic solution	Medical tape	Vaseline
Antiseptic ointment	Quilts	Vicks ointment
Antiseptic pressure spray	Lilly Pads	Glycerine
Theoflex pads	Poultice	Easy boots
Butterfly closure tapes	Elastoplast	Rolled gauze
Large and small syringes	Elastic tape	Cotton balls
Vet wrap	Hypodermic needles	Staple bandages
Safety pins	Torniquet	Rolled cotton
Compression wrap	Wire cutters	Pliers
Lead rope	Tongue depressors	Halter
Hoof testers	Stethoscope	Duct tape
Notepad and pens	Veterinary thermometer	Fashlight(s)
Bulb syringe	20ml disposable syringes	Twitch
Shoe puller	Scissors	Probangs
Surgical gloves	Surgical masks	5 1/2" curved scissors
5 1/2" tissue forceps	15ml BD vacutainer	20ml sterile glass vials
1 ½" 20 gauge disposable needles	Styrofoam specimen containers	Tranquilizers for animal exams
Bucket for disinfecting feet	Bard Parker handle #3 and pack of 10 blades	

**MISCELLANEOUS SUPPLIES**

Clipboards	Swine mouth speculum	Iowa hog holder
Nose lead	Lariat	Cell phone
Flashlight	Towels	Tent/shelter/trailers
Official ear tags and ear tag pliers	Indelible ink markers	Metal pans 12x12x4"
Pliers	Screwdrivers	Hammers
Axes	Prybars	Hatchets
Post hole diggers	Portable corrals	Metal-handled knives
Sharpening stones	Quarantine and related forms	Laptop computers
GPS units	Wrenches/vise-grips	Captive bolt guns
Rifles and bullets		

**APPENDIX F**

**USDA's NATIONAL EMERGENCY RESPONSE TO A HIGHLY CONTAGIOUS  
ANIMAL DISEASE EXECUTIVE SUMMARY**

**APPENDIX G**

**THE STATE OF MARYLAND PET SHELTERING PLAN**

**APPENDIX H**  
**FOOD REQUIREMENTS FOR ANIMALS**  
**(To Be Developed)**

**APPENDIX I**

**PREPARING ANIMALS FOR TERRORIST ATTACKS**

### Preparing Animals for Terrorist Attacks

Terrorist attacks are difficult to prepare for but your animal will have the best chance of survival if you prepare now for such an event. Do not wait until an actual attack to try to gather all this information together. The following suggestions will allow you to respond to your pet's needs intelligently, quickly, and safely.

1. Obtain a copy of the disaster preparedness booklet entitled "[Saving the Whole Family](#)" available from the American Veterinary Medical Association (AVMA) or your veterinarian and follow the recommendations for preparing your animal for a disaster. (AVMA - 1931 N. Meacham Road, Suite 100, Schaumburg, Ill 60173-4360, phone: 800/248-2862 ext. 6632, website: [www.avma/disaster](http://www.avma/disaster)). For a single free copy from the AVMA email your request to: [ksikora@avma.org](mailto:ksikora@avma.org).
2. Prepare an animal evacuation kit as detailed in the above booklet.
3. Have a list of places where you can evacuate with your animal (such as relatives, pet friendly motels) if so instructed by emergency management personnel. Do not evacuate without prior instructions from emergency personnel. Listen to your radio for up-to-the-minute information.
4. Have your animals permanently identified by a method recommended in the AVMA booklet such as microchipping, tattooing etc. to ensure your animal's safe return to you in the event of separation.
5. Be sure your animal is in an optimum nutritional state and free of parasites, such as worms, fleas, ticks etc. so your animal's body will be able to produce the necessary antibodies to combat diseases (especially during time of stress). Contact your veterinarian for advice on nutrition and parasite control.
6. Be sure your animal is up to date on all vaccinations (especially rabies) as recommended by your veterinarian.
7. Have extra medicine, and copies of your animal's vaccination history and medical records. Bring them along if you and your pet are evacuated.
8. Have at least a 3-day supply of food and water and all medication your animal takes. Bring them along if you and your pet are evacuated.
9. Be sure the veterinarian caring for your animal knows of all medications your animal is taking, including dietary supplements, herbal medicines, and over the counter medications, so that medications that may counteract with each other will not be used.
10. Do not give your animal any medication, including those prescribed for people, unless recommended by a veterinarian. Be sure to follow the veterinarian's dosing instructions precisely.
11. If your animal becomes sick, do not attempt to diagnose your pet's illness. Have a veterinarian examine your pet, make the diagnosis and suggest appropriate treatment. If unable to reach your veterinarian, contact your local health department for instructions on how to obtain veterinary services.
12. Gas Masks: The use of gas masks in animals is not currently recommended for the following reasons:
  - Different facial sizes (such as a long muzzle) of animals prevent a proper fit.
  - Most animals will not tolerate wearing a mask.
  - Masks could interfere with an animal's ability to pant. Panting is very effective in preventing overheating.
  - Currently there are no proven effective masks available for animals.

13. For information on the most common agents that a terrorist might use and their effects on animals a recommended reference is: *Bio-terrorism Agents: Effects on Animals*. This information is available on the Maryland Department of Agriculture's (MDA) website at: <http://www.mda.state.md.us/vet/animplimp.pdf>. Or you can access the information by following these instructions:

From the MDA home page: (<http://www.mda.state.md.us/>) click on:

1. Marketing, Animal Industries and Consumer Services then
2. Animal Health then
3. Bioterrorism Agents: Implications for Animals (pdf)

14. Many diseases that may be shared between animals and humans such as anthrax, botulism, and plague may be used as bioterrorist agents. In response to that potential threat, state agencies that regulate various aspects of animal health maintain plans and protocols to investigate, control, and eradicate unusual, foreign, or emerging animal diseases. However, the effectiveness of any control, treatment, or eradication of these diseases is highly dependant on timely notification of the proper authorities. Notify the following agencies if you observe any unusual signs in animals or suspect a disease outbreak.

To report animal disease outbreaks or for additional questions, contact your local veterinarian.

**APPENDIX J**  
**DISASTER SCENARIO CHECKLISTS**  
**(To Be Developed)**