Rhode Island Department of Environmental Management
Division of Agriculture

ANIMAL DISEASE PLAN (6-9)

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See also:

- DEM, Emergency Response Site Safety Plan (4-2-9)
- USAHA, Animal Diseases (a.k.a. "The Gray Book"), 1998
  <http://www.vet.uga.edu/vpp/gray_book02/fad/index.php>
- FAO, Manual on Procedures for Disease Eradication by Stamping Out
  <http://www.fao.org/DOCREP/004/Y0660E/Y0660E00.htm>
- NASPHV, Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2006
  <http://www.nasphv.org/Documents/AnimalsInPublicSettings.pdf>

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NVSL, Laboratory-Related Forms
<http://www.aphis.usda.gov/animal_health/lab_info_services/forms_publications.shtml>
NVSL, Form 10-4, Specimen Submission
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See also:

CDC, Avian Influenza <http://www.cdc.gov/flu/avian/>, especially Avian Influenza Infection in Animals <http://www.cdc.gov/flu/avian/gen-info/qa.htm#4>

OIE, Avian Influenza <http://www.oie.int/eng/info_ev/en_AI_avianinfluenza.htm> and Terrestrial Animal Health Code Article 2.7.12 <http://www.oie.int/eng/normes/mcode/en_chapitre_2.7.12.htm>

USDA, Avian Influenza (Bird Flu) <http://www.usda.gov/wps/portal/usdahome?navtype=SU&navid=AVIAN_INFLUENZA>

USDA, APHIS, Summary of the National Highly Pathogenic Avian Influenza Response Plan (August 2007) <http://www.aphis.usda.gov/newsroom/hot_issues/avian_influenza/contents/printable_version/SummaryHPAI-Response092007Draft.pdf>

USDA, APHIS, Standard Operating Procedures: Response Plan to a Report of Notifiable Avian Influenza Virus (2005)

US EPA, Registered Antimicrobial Products with Label Claims for Avian (Bird) Flu Disinfectants <http://www.epa.gov/pesticides/factsheets/avian_flu_products.htm>

USFWS, Early Detection and Response Plan for Occurrence of Highly Pathogenic Avian Influenza in Wild Birds <http://www.fws.gov/migratorybirds/issues/AvianFlu/HPAI%20Response%20Plan%20final%20071707%20Edition.pdf>

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Emergency Support Function #11 – Agriculture and Natural Resources Annex <http://www.usda.gov/homelandsecurity/ICS/assets/ESF11.pdf>

APHIS, Procedures for the Investigation of Potential Foreign Animal Diseases/Emerging Disease Incidents (FAD/EDI) Veterinary Services Memorandum No. 580.4 (October 22, 2008) <http://www.aphis.usda.gov/animal_health/lab_info_services/downloads/VS_Memo580_4.pdf>

APHIS, National Animal Health Emergency Management System (NAHEMS) Guidelines (2006) <http://emrs.aphis.usda.gov/nahems.html>:
Appraisal and Compensation
Biosecurity
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Foreign Animal Disease (FAD) Investigation Procedures: A Field Guide
Personal Protective Equipment (PPE) – Biological Hazards
Quarantine and Movement Control: Highly Contagious Diseases
Radiological Emergency Guidelines
Vaccination
Wildlife Management
Zoos: FMD and Other Highly Contagious Diseases

NRCS, Conservation Practice Standard, Code 316, Animal Mortality Facility <http://efotg.nrcs.usda.gov/references/public/AL/tg316.pdf>

NRCS, Conservation Practice Standard, Code 317, Composting Facility <http://efotg.nrcs.usda.gov/references/public/AL/tg317.pdf>

INTRODUCTION

This document provides a plan for a cooperative emergency response to highly contagious and zoonotic animal disease in the State of Rhode Island. The Table of Contents above includes links to additional information from State and Federal government (e.g., response protocols for specific situations, procedures, and pathogens).

The goal of this emergency response plan is to detect, control and eradicate a highly contagious disease or zoonotic disease of animals as quickly as possible and return Rhode Island and the United States to a disease free status. A presumptive positive case will generate immediate, appropriate local and national measures to accurately diagnose the disease and minimize any potential spread of infection. A confirmed positive case will generate additional measures on a regional, national and international scale. The implementation of control and eradication protocols will be dependant on the epidemiology of the outbreak and State or Federal regulations.

For example, Foot and Mouth Disease (FMD) is a highly contagious viral disease affecting all cloven footed animals. Humans are not significantly affected by FMD, but can spread the disease to susceptible animals. FMD is the basis for the design of this protocol and plan due to its highly contagious nature. All aspects of the response outlined are intended to eradicate FMD and minimize the spread of the virus. Response to other diseases and incidence such as bioterrorism or animals disasters will utilize this protocol to whatever degree deemed necessary.

Any suspicious case of a Foreign Animal Disease/Emerging Disease incident (FAD/EDI) discovered by a producer or animal owner should be reported immediately to a local licensed or accredited veterinarian. The veterinarian upon confirming the suspect case must immediately report the case to the State Veterinarian (RI DEM), the Area USDA Veterinary Medical Officer (VMO) or the USDA Area Veterinarian in Charge (AVIC). Slaughter plant inspectors who observe suspicious cases through ante or postmortem inspection should report those cases to their Supervising Veterinary Medical Officer and the State Veterinarian. Once reported, a Foreign Animal Disease Diagnostician (FADD) or qualified State and Federal Animal Health Officials will be assigned to investigate the case and collect samples for diagnosis. The veterinarian and animal owner reporting the suspect case will be advised of proper biosecurity precautions and any other necessary actions to be taken. Any personnel or veterinary staff should refrain from visiting contact with other livestock until a diagnosis is established.

During the investigation of a suspect disease (FAD/EDI), the Foreign Animal Disease Diagnostician (FADD) and qualified Animal Health Officials will use clinical signs, history and professional experience to determine the likelihood of a highly contagious disease. They will classify the assessment as “unlikely”, “possible” or “highly likely”.

For “unlikely” and “possible” scenarios, the FADD, Animal Health Official or accredited veterinarian will at a minimum require that the livestock owners quarantine their farm or facility until laboratory results rule out an FAD/EDI. Issuance of an official State quarantine with laboratory results and diagnosis pending will depend on an assessment by the accredited veterinarian, the FADD and/or the State Veterinarian taking into consideration clinical signs and case history. The AVIC and Director of DEM will be notified of all scenarios. All premises involving “unlikely” or “possible” cases will remain under state quarantine until appropriate

control and eradication measures have been implemented. The following focuses exclusively on the "highly likely" scenario.

RESPONSE TO "HIGHLY LIKELY" SCENARIOS

When the FADD or Animal Health Official determines that the condition under investigation is "highly likely" to be a FAD/EDI, the FADD notifies and consults with the USDA-AVIC and/or State Veterinarian. The samples submitted to an approved laboratory are considered a priority so that a presumptive diagnosis can be reached as possible. Based on the outcome of consultations and preliminary diagnostics a State quarantine will be placed on the farm; an appropriate movement control zone will be established around the farm. The extent of movement control will reflect the epidemiology of the infection and the potential for the disease to disseminate. Local and emergency officials will be notified; and all contacts to the farm will be traced. Attempts to locate and identify susceptible livestock will be initiated.[1] Before leaving the farm, the FADD and Animal Health Officials will work with the producer to institute appropriate bio-security and public health measures. All personnel and veterinary staff will thoroughly clean and disinfect their clothing, equipment and vehicle. Until a presumptive diagnosis is made, the FADD or other personnel will not go on any other farms of unknown or negative status. If the presumptive diagnosis is positive, the FADD and other personnel should not go on another farm of unknown or negative status for at least 48 hours.

The Director of the Rhode Island Department of Environmental Management will consult with the Governor of Rhode Island, the Directors of other concerned departments and the USDA to consider mobilization of USDA and State Emergency Response Teams (ERT) to provide support to the epidemiological investigation of the case to determine the source and the extent of possible spread of the disease. They will also consult with state and local Emergency Management Agencies to initiate preliminary response protocols and the Incident Command System.

If a highly contagious FAD/EDI is classified as a presumptive positive or confirmed positive case the following actions would occur.

PRESUMPTIVE POSITIVE (INDEX CASE) RESPONSE

In a Presumptive Positive case, clinical signs will be consistent with an FAD/EDI plus the following:

1) Sample is positive (antigen or antibody);
2) Other epidemiological information is indicative of the FAD/EDI.

Once the laboratory indicates it has positive sample, a cascade of events will occur starting with a conference call between the laboratory, the State Veterinarian, AVIC, FADD, the DEM director, all other concerned Directors, the Governor, and the EMA. This conference call will review the protocols and options based on the current epidemiology of the disease. Several steps will be taken, which are listed below.

Within the RI Department of Environmental Management –

The Director of the DEM will:

- Activate the Incident Command System.

[1] Trace-backs should be applied for a minimum of 2 times the maximum incubation period before the onset of clinical signs. Trace-forward should be applied up to the time the quarantine is imposed.

- In consultation with the Division of Agriculture, order the establishment of appropriate quarantines, including infected zones and surveillance or movement control zones.
- Request the Governor consider declaration of a Sate of Emergency, allowing for a statewide restriction on importation and exportation of related agricultural products and industry, initiating State Emergency Protocols.
- Initiate training and active case finding in the State based on suggestive clinical signs to include private veterinarians, FSIS and State meat inspection personnel, Farm Service Agency (FSA), Dairy inspectors, Extension Agents, Animal control, Department of Health, and licensed rehabilitators.
- In consultation with the Division of Fish and Wildlife, determine whether wild animals may be a risk factor in the dissemination or persistence of infection and direct State Fish and Wildlife officials to take the needed measures to reduce this potential.
- In consultation with the Division of Agriculture, notify appropriate contacts within cooperating agencies and industry partners that would be needed to support a response.
- Identify and contact the Emergency Management officials, local APHIS officials and State Emergency Response personnel needed to initiate a response. (see attached contact list).
-

The DEM Division of Agriculture will:

- Recommend the establishment of appropriate quarantines to include infected zones and surveillance or movement control zones.
- Quarantine the affected premises and any contiguous farms.
- Order necessary and appropriate restrictions on the movement of animals, all products and conveyances within established quarantine districts or zones.
- Initiate immediate efforts to locate and identify susceptible livestock within the appropriate zones.
- Activate Animal Health Teams needed for rapid response.(VMAT, Euthanasia, Disposal, etc.)
- Initiate the appropriate public awareness campaigns thru media and educational programs.
- Consider depopulation of the affected herd in consultation with USDA, governor's office, the state veterinarian, Industry and other stakeholders.
    - Review with the State and USDA processes for valuation, appraisal and indemnification of animals.
    - Review with USDA the processes for humane euthanasia of animals.
    - Instruct State and Federal officials to begin the process of disposal site selection and selection of disposal methods for carcasses, milk, and contaminated feed, bedding and products. Activate the Carcass disposal team.
- Review the operational guidelines for a highly contagious and zoonotic disease of animals.
- Contact neighboring State Animal Health Officials and inform them of the situation.

- Provide to the RI Division of Agriculture the minimum criteria for permitting and selection of carcass disposal sites, and for selection of acceptable materials or methods for carcass disposal. Assist the Carcass Disposal Team.
- Provide advice as needed to mitigate environmental impacts of operations. Activate an Environmental Response Team.
- Activate the USDA Emergency Management Response System (EMRS) computer tracking system.
- Provide equipment and personnel needed for implementation of Biosecurity, Surveillance, Euthanasia and Disposal procedures.
- Provide current data and mapping from affected locations and nearby agricultural or animal operations.

The DEM Division of Fish and Wildlife and USDA-Wildlife Services will:

- Address issues of susceptibility and impact of disease in wildlife species. The RI division of Fish and Wildlife will initiate its wildlife protocol.

The RI Emergency Management Agency (EMA) will:

- Activate preliminary Emergency Response Operations.
- Assess and recommend to the Director of DEM whether wild animals may be a risk factor in the dissemination or persistence of infection and direct State Fish and Wildlife officials to take the needed measures to reduce this potential.
- Mobilize Equipment and staff needed for Rapid Response and containment.
- Advise EMA staff and RI National Guard.
- Review and prepare the Emergency Operations Animal Disaster Annex.

The RI State Police and related Enforcement will:

- Mobilize officers to assist with establishing and enforcing movement and quarantine restrictions.
- Provide security for locations and personnel involved in emergency response.
- Assist in transportation and communications.

The RI Dept of Transportation will:

- Provide heavy equipment for excavating burial sites, moving animal carcasses for disposal and hauling materials for burning or fill.
- Assist with establishing and maintaining biosecurity checkpoints and traffic control on public highways in movement control zones.
- Assist in transportation of personnel, materials and supply.

The RI National Guard will (with federal or the RI Governors request):

- Provide heavy equipment and personnel for excavating burial sites, moving animal carcasses for disposal and hauling materials for burning or fill.
- Assist with establishing and enforcing movement and quarantine restrictions.
- Assist in transportation of personnel, materials and supply.

The University of RI will:

- Activate the Extension Animal Emergency Plan.
- Conduct educational and outreach activities to producers, industry segments and the public.

- Provide facilities and resources needed to assist in the research and eradication.
- Provide staff and facilities for training and education.

The RI Department of Health will:

- Address issues of zoonotic potential and public health impacts of the disease.
- Assist in the with diagnosis and laboratory facilities.
- Investigate the epidemiology of zoonotic disease.
- Provide Public education on zoonotic disease.
- Initiate any Emergency Response protocols appropriate.
- Assist in Public Health assessments for personnel and communities.

The RI Department of Mental Health and Retardation Hospitals (DMHRH) will:

- Prepare and coordinate Mental health services designated to assist.

The Rhode Island Disaster Response Team (RIDART) will:

- Activate the animal disaster response team to include private volunteers (VMATs).
- Initiate mobilization of RIDART materials and supply.
- Provide assistance to the Emergency Animal Response Team (EART).

The USDA-Area Veterinarian in Charge (AVIC) will:

- Notify appropriate contacts that would be needed to support a response (e.g., USDA-ERT and READEO director, field force and others as pre-determined during discussions with the State Veterinarian).
- Prepare to coordinate and mobilize USDA personnel in control operations.
- Contact AVIC in adjacent states.
- Notify other USDA agencies in New England.
- Assign Area Epidemiologist to RI for epidemiological support.
- Consult with the State Veterinarian on a preliminary needs assessment.

The USDA Emergency Response Team (ERT), if activated, will:

- Provide initial epidemiological support in case investigation to help determine source of infection and the extent of possible spread of disease.
- Provide information on where to begin trace investigations and active case finding.

The Regional Emergency Animal Disease Eradication Organization (READEO) Director will:

- Notify all AVIC in the region of the presence of an FAD/EDI and traceback findings.
- Give the READEO team members notice to be prepared for deployment.
- Prepare to support the RI EMA in their actions.
- Activate USDA online Emergency Management Response System (EMRS).

The USDA, APHIS will:

- Conduct isolation and typing of the highly contagious FAD/EDI agent.
- Initiate National and North American Communication Plans.
- Place National READEO leaders on high alert.

- Alert USDA Crisis Management Staff.
- Activate APHIS Emergency Operation Center.
- Institute active case finding based on suggestive clinical signs in all States, to include the State Veterinarians, FSIS, Extension Agents, Industry partners, and public awareness campaigns.

Industry will:

- Notify its producers and markets of movement and import/export restrictions.
- Communicate with their constituencies.
- Support State and National response efforts.
- Participate in biosecurity, surveillance, euthanasia and disposal procedures.
- Consult with Unified Command concerning industry impact.

CONFIRMED POSITIVE CASE:

In a confirmed positive case, the agent is isolated and identified. All previous activities will apply in addition to:

The Director of DEM, USDA-AVIC and Unified Incident Commanders will:

- Initiate depopulation and disposal procedures of the infected herd/flock if not accomplished under presumptive positive diagnosis
- Request a Governor's Declaration of State Emergency (if not already achieved at presumptive diagnosis) thus implementing the USDA-APHIS and RI Emergency Response Plans
- Expand or modify quarantine and movement restrictions, and zone boundaries.
- Expand active case finding
- Enforce movement, importation and exportation controls within the State, closing the borders to susceptible animals and related potentially contaminated materials.
- Evaluate the need for a request for a Presidential Declaration of Emergency thus implementing the Federal Response Plan

The Governor will:

- Consider a request for Declaration of Emergency (if not already established under presumptive diagnosis).
- Delineate the authority of State and Federal officials to quarantine.
- Mobilize the required funds needed to implement eradication protocols and indemnification.
- Direct the National Guard to assist as needed.
- Consult with neighboring State Governors and request needed assistance.
- Decide on the appropriate options for animal depopulation and disposal.

Depending on the status of susceptible species, those options are

1. depopulation of all susceptible species on infected and contiguous farms only.
2. depopulation of all susceptible livestock within the infected zone.
3. strict quarantine and heavy surveillance within the infected zones with depopulation of exposed or suspected animals on infected farms only.
4. consider the use of vaccination, based on the USDA release and provisions for vaccination.

The Emergency Management Agency will:

- Activate the RI Emergency Operations Center.
- Support local Emergency Management efforts at the site of the outbreak.
- Activate the EMA EART Animal Response Annex.
- Provide communications and computer systems for Emergency Management.
- Coordinate the Quarantine, Surveillance and Eradication response.

USDA will:

- Notify appropriate Federal agencies of the emergency declaration.
- Consolidate and present the official daily situation report to the Secretary.
- Coordinate the response activities of all USDA agencies to support APHIS and, until Presidential Emergency Declaration, coordinate all requests for the support of other federal agencies.
- Impose on the affected State a Federal quarantine for interstate commerce and request enforcement by RI and adjoining States.
- Identify a source and start evaluating a process of acquiring an effective vaccine.
- Coordinate national surveillance activities

The Deputy Administrator of Veterinary Services through the APHIS Emergency Management Operations Center will:

- Provide international and national communication on the status of the situation.
- Involve Federal, State and Industry partners in the decision-making process with respect to the consequences of the disease on the U.S.
- Designate the Associate Deputy Administrator of Veterinary Services as the National Incident Coordinator.

The Secretary of Agriculture will:

- Declare an emergency or extra-ordinary emergency, if necessary, to release the funds to cover expenses for response activities, including funds for indemnity.
- Call on other Federal Agencies to provide assistance.
- Mobilize federal agricultural resources to assist the State.

Industry Partners will:

- Communicate with their constituencies.
- Support State and National response efforts.
- Coordinate efforts with State, national, and international industry groups.
- Participate in quarantine, surveillance, eradication, and recovery efforts.
- Consult with Unified Incident Command on industry impact.

PRESUMPTIVE POSITIVE (SECONDARY CASE) RESPONSE

Subsequent investigations will treat an animal(s) as a confirmed case if the animal(s) manifest clinical signs consistent with FAD/EDI plus one or both of the following:

1) sample is positive;
2) other epidemiological information is indicative of the FAD/EDI,

Secondary cases will be responded to as confirmed cases until laboratory diagnosis is definitive. Continued implementation of eradication protocols and expansion of infected and movement control zones will proceed in response to all newly diagnosed cases.

CONFIRMED POSITIVE (SECONDARY CASE) RESPONSE

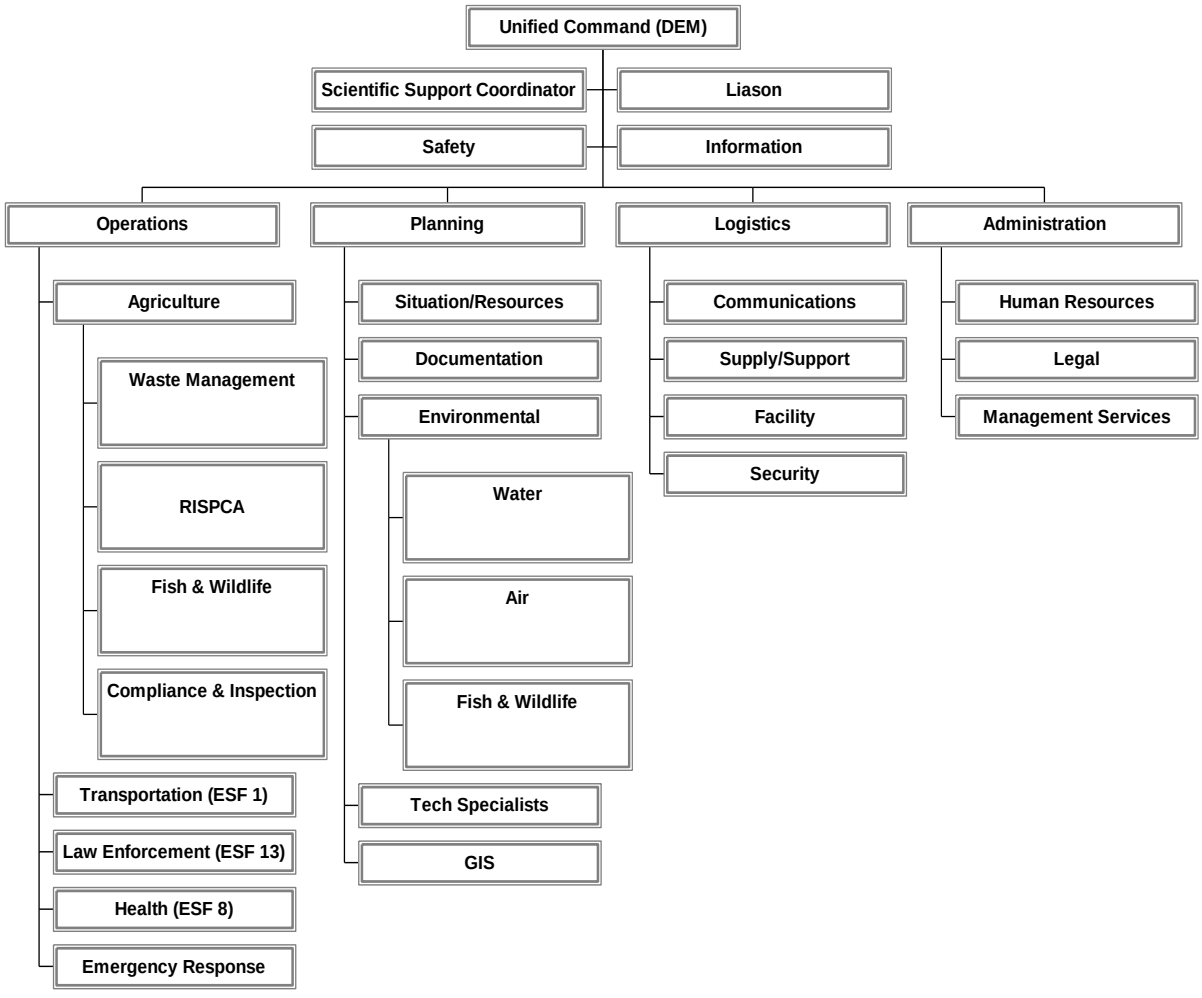
Confirmation of a secondary index case and any subsequent confirmed cases will initiate continued implementation of the response and eradication protocols. Reassessment of the epidemiology and potential exposure to susceptible species will dictate the extent of quarantine, infected and movement control zones.

Depending upon the epidemiology of the disease at this point and the status of the State, Region and Nation, similar responses will be needed with varied degrees of eradication and control. The Governor and the Unified Incident Command will prepare for the long term control and eradication with appropriate responses to the potential for ongoing case discovery and the need to maintain quarantines or restrictions on animals and animal products.

RETURNING TO DISEASE FREE STATUS (NEGATIVE STATUS)

Depending on the disease and the extent of outbreak, once the state has been free of any confirmed positive cases a waiting period is required. Active surveillance and documentation of disease eradication during this period will be necessary in order to allow for importation, exportation and removal of control zones.

ANIMAL DISEASE RESPONSE INCIDENT COMMAND STRUCTURE (ICS)



QUARANTINE AND SURVEILLANCE ZONES

In the declaration of areas the following factors should be taken into account:

- Characteristics of the pathogen
- Epidemiology of disease incident
- Livestock species involved
- Environmental factors
- Wildlife involvement
- Natural vs. artificial barriers/boundaries
- Geopolitical boundaries
- Industries involved
- Livestock movement patterns
- Processing options (livestock and products)
- Effect on non-risk commodities due to intrastate commerce restrictions

INFECTED ZONE

The Infected Zone is defined as any area in which infection of animals has been presumed or confirmed. All premises within this area with susceptible animals and potentially contaminated materials are strictly quarantined and subject to constant surveillance.

The actual distance in any one direction for the zone is determined by epidemiological factors such as terrain, the pattern of livestock movements, livestock concentrations, the weather and prevailing winds, the distribution and movements of susceptible wildlife, the estimated time elapsed since initial outbreak of disease and known characteristics of the agent. The infected zone should extend at least 6 miles (10 kilometers) beyond the presumptive or confirmed infected premises.

Protocol for establishment and maintenance of Infected Zones:

- Conduct epidemiological investigation to:
    - Identify trace-ins and trace-outs,
    - Determine source of infection,
    - Determine extent of spread of the disease,
    - Time elapsed since initial outbreak of the disease.
- Quarantine restrictions are in place. Such quarantines will apply to all susceptible species and all conveyances or equipment that may have direct or indirect contact with susceptible species.
- Established biosecurity and movement control checkpoints on avenues of transportation into and out of the infected zone.
- To leave the zone all animals, humans and conveyance are subject to the following:
    - Passage is permitted only through biosecure travel corridors, through established biosecurity perimeters and movement control checkpoints.
    - No animals or animal products can leave the zone.
    - Vehicles, equipment and people may leave if strict biosecurity procedures are followed.
        - Information concerning whereabouts and animal contacts is provided
        - All vehicles, equipment, and people are clean and disinfected

        - Personnel Shower out
        - Human-to-animal contact policies are regulated, appropriate for the specific the agent
        - Official permitting and permission is provided.
    - The State may authorize depopulation of all susceptible animals that are considered either infected or exposed in this zone.
    - The State may request voluntary depopulation with indemnity.
    - That State may impose stricter quarantine and regulations on owners who refuse slaughter and deny indemnification, and may impose restrictions beyond those outlined above.

SURVEILLANCE OR MOVEMENT CONTROL ZONE

Defined as the area surrounding a infected zone in which all susceptible animals and potentially contaminated materials are restricted in their movements and subject to aggressive surveillance.

This zone will surround the infected zone. The exact boundary of the zone will be established to assure containment of the outbreak. Early in the outbreak all movement should be stopped. Once the extent of the outbreak is understood, susceptible livestock can move within that zone with permit but not out of the zone. Non-susceptible livestock or poultry can move within and out of the zone with a permit.

Protocol for establishment and maintenance of Surveillance and Movement Control Zones:

- Conduct active case finding and trace backs
    - Increased awareness by/of all animal health professionals
- Conduct surveillance at concentration points and epidemiological suspect areas.
- Non-susceptible livestock, poultry, commerce and products can move out of the zone via biosecure corridors, but require appropriate bio-security such as C&D of vehicles.
- Public access to animals and wildlife will be restricted in these zones.
- Any suspected cases of disease found within these zones will be quarantined immediately.

GUIDELINES

(Note: For more detailed instructions, consult incident-specific plans and advisories from USDA-APHIS (e.g., National Animal Health Emergency Management System (NAHEMS) Guidelines) as well as documents appended to this DEM Animal Disease Plan.)

DEPOPULATION AND DISPOSAL – Carcass Disposal Team

- The Carcass Disposal Team will review the disease epidemiology, locations, animals involved and soil, water end environmental factors.
- The State veterinarian, in conjunction with State and Federal officials, will determine the method of euthanasia to be used for the particular situation.
- Depopulation and disposal operations must be coordinated to minimize the spread of the disease and associated challenges. For example, if depopulation progresses faster than the ability to dispose of carcasses, problems with bio-security, animal welfare, and pest management will increase. Disposal should follow euthanasia as soon as possible.

- The preferred methods of disposal of carcasses, milk, and feedstuff are by burial, composting, and/or incineration. Burial is generally easiest; it is less polluting and requires the least time and consumes the fewest resources. However, several factors, such as topography, soil type, and water-table depth must be considered in selecting a burial site. In general, forty-two cubic feet are required to bury 1 bovine, 5 pigs, or 5 sheep. Composting can also be effective, but it requires hydric soils, proper site selection, and composting materials. Incineration with Air Curtain Technology can also be effective, but it requires a fuel source, proper site selection with disposal of ash.
- Burning, rendering, composting and alkaline hydrolysis are all possibilities.
- The Carcass Disposal Team shall assist in site selection and coordination. Site(s) should be selected in consultation with the DEM Offices of Waste Management, Air Resources, and Water Resources as well as EPA Region 1. In addition to "Operational Guidelines" in the NAHEMS Guidelines, see the carcass disposal guidelines appended to this DEM Animal Disease Plan, and Carcass Disposal: A Comprehensive Review (National Agricultural Biosecurity Center Consortium, Carcass Disposal Working Group for USDA-APHIS, 2004 – <http://fss.k-state.edu/research/books/carcassdispfiles/Carcass%20Disposal.html>).

CLEANING AND DISINFECTING (C+D) – Biosecurity Team

- To clean and disinfect (C+D), The Biosecurity Team should first remove all organic material by power washing, steam, or manual methods.
- Use only appropriate, EPA-approved disinfectants or pesticides. (See Appendix.) For example, agents that destroy FMD virus include:
    - Acids (e.g. as acetic acid)
    - Alkalis (e.g. sodium hydroxide, sodium carbonate).
- Apply disinfectants or pesticides only in accordance with labels.
- All premises must be allowed appropriate periods for drying and left empty for the prescribed periods before repopulation by animals or humans and before reinstallation and operation of equipment.

ANIMAL WELFARE

- Animals shall be treated humanely from the time animals are identified as presumptive or confirmed positive until they are depopulated.
- Owners and their families shall be given appropriate consideration, including explanations of what to expect.
- Lactating animals must be milked.
- When depopulation is appropriate, euthanasia must be performed as rapidly and humanely as possible. Euthanasia shall be carried out humanely by chemical, mechanical or electrical means.

EQUIPMENT

- Sources of equipment: With a Gubernatorial declaration, States assets are made available. With a Presidential declaration, Federal assets are made available.
- The state of RI will purchase and stockpile equipment and supplies that may be necessary to establish quarantines for appropriate initial response to suspect cases.

INDEMNITY AND APPRAISAL

- A joint State and Industry Committee will convene. (Title 9, Code of Federal Regulations, Part 53)

- Solicit bids to reflect fair market values. Normally, obtain three independent appraisals, eliminate the lowest, and average the higher two.
- Explore procedures to improve biosecurity in the future.

MILK AND MILK PRODUCTS

- Milk from known infected farms should be destroyed on the farm.
- Milk from herds not known to be infected may be moved to processing plants within a control zone, processed to eliminate virus, and distributed only within a specified control zone.

MEAT

- Meat products from animals that have been exposed to some pathogens (including foot-and-mouth disease) may still be safe for humans to eat.
- For example, FMD-infected but clinically normal animals may be permitted to be slaughtered and processed. But to minimize the risk of spreading FMD, fresh, chilled and frozen, deboned meat and meat products should be marketed only within the infected zone.

ZOOLOGICAL PARKS

- In the presence of highly contagious or zoonotic disease, biosecurity plans must be in place to protect susceptible species.
- Under quarantine, all animals shall be placed on daily surveillance with sentinel animals to ensure the zoo is disease-free before the quarantine is released.

GERMPLASM CENTERS

- Semen: FMD may be transmitted by infected semen (virus is shed in semen).
- Embryo Transfer: Follow USDA regulation.

GLOSSARY AND ACRONYMS

APHIS – The Animal and Plant Health Inspection Service of the USDA, responsible for ensuring the health and care of animals and plants.

AVIC – USDA Area Veterinarian In-Charge – the lead Federal Veterinarian for APHIS Veterinary Services in an Area. Nationwide, there are 42 Areas that encompass one or more States.

Case Classification:

- Suspect – Animal with clinical signs, which may be consistent with an FAD/EDI
- Presumptive Positive (Index case) – Animal with clinical signs consistent with FAD/EDI *or* one of the following:
    1) sample is positive;
    2) other epidemiological information is indicative of the FAD/EDI.
- Presumptive Positive (Secondary case) – Animal with clinical signs consistent with FAD/EDI plus *one or both* of the following:
    1) sample is positive;
    2) other epidemiological information is indicative of the FAD/EDI.
- Confirmed Positive – Agent is isolated and identified.

Case Priority Designation – Indicates APHIS response levels in sample handling and testing protocols. They are designated 1 to 3 for investigations.

CVO – Chief Veterinary Officer – The Chief Veterinary Officer of the United States is usually the Deputy Administrator of Veterinary Services.

EMLT – Emergency Management Leadership Team – consists of APHIS leaders who are responsible for animal health emergency management.

Epidemiological information – includes tracing all contacts with affected animals and premises including movements of non-susceptible livestock, humans, fomites, animal products or by-products, crops/grains, and feedstuffs.

ERT – Emergency Response Team – A team of APHIS veterinarians or State Animal Health Officials with specialized training in contagious disease and epidemiology. The ERT is rapidly deployed to begin case investigation early in a disease outbreak.

EOC – Emergency Operations Center.

FADD – Foreign Animal Disease Diagnostician- a veterinarian who has been through the foreign animal disease training course at Plum Island and receives continuing education in FAD and animal health emergency management.

FAD/EDI – Foreign Animal Disease/Emerging Disease Incident Investigation-- On site assessment conducted by FADD, as part of the national surveillance program for exotic or emerging animal diseases. The assessment includes: a history of clinical and epidemiological findings, results of physical examinations, necropsy findings, specimen collection and submission to approved laboratory, reporting, initiating appropriate control measures, et al.

FMD – Foot and Mouth Disease- a highly contagious viral disease of cloven footed animals. This disease is the basis for all control and eradication protocols.

FOMITES – Any inanimate objects which can serve as a means for passive transfer of an infectious organism.

FSA – Farm Service Agency- the local USDA farm service assisting agriculture in the state.

Highly Contagious Disease – rapidly spreading from animal to animal as well as herd-to-herd. Transmission can occur via direct and indirect modes; has above normal morbidity/mortality per unit time; could be based on species or production.

READEO – Regional Emergency Animal Disease Eradication Organization – This is a USDA, APHIS, VS organization that has trained animal health emergency managers and can be mobilized to support and fight an outbreak.

RIDART – Rhode Island Disaster Animal response Team. Formed under the RI emergency animal annex, this volunteer group will provide expertise and support in animal disasters.

State Veterinarian – the veterinary officer for a particular State or territory of the US in charge of animal health activities. In Rhode Island the State Veterinarian is part of the Department of Environmental Management, Division of Agriculture.

VMAT – Veterinary Medical Assistance Team- teams of veterinarians and animal care professionals equiped to assist in the treatment, care and handling of animals during disasters. They can be both national and state based teams.