COMMONWEALTH OF MASSACHUSETTS
HIGHLY PATHOGENIC AVIAN INFLUENZA (HPAI)
MULTI-AGENCY COORDINATION AND OPERATIONS PLAN

VERSION 2

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1.0 Executive Summary

Highly Pathogenic Avian Influenza (HPAI) is a highly contagious avian disease that is carried and spread by water fowl and wild birds. These birds may transmit HPAI to other wild birds as well as domestic poultry, resulting in a serious threat to these populations in Massachusetts. While no cases have been confirmed in Massachusetts, the threat of this virus poses a serious risk to the Commonwealth, and could have significant impacts to the State's economy and bird populations.

This plan outlines the framework guiding the Commonwealth's response to a positive case of HPAI if one presents itself. In order to be effective, the response must be rapid and thorough to prevent the spread of the virus amongst bird and poultry populations.

Roles and responsibilities for some of the state agencies that have a significant role in the implementation of this plan have been outlined, including:

- Department of Agricultural Resources
- Department of Fisheries and Wildlife
- Department of Environmental Protection
- Department of Fire Services
- Department of Conservation and Recreation
- Department of Public Health
- Massachusetts Emergency Management Agency
- Massachusetts State Police
- Massachusetts Environmental Police
- Massachusetts National Guard
- Mass 211

In the event of a positive case, a Unified Command Group will be activated and will operate out of the State's Emergency Operations Center at MEMA Headquarters to work through the HPAI response procedures. Selected members of MEMA's ESF Team will be activated to support response operations. Specialized Mission Groups will support ongoing field operations at infected farms. The SEOC will also be a central location for state agencies to coordinate with their Federal Partners. WebEOC will be the primary information sharing tool used to support the Commonwealth's response and ensure Situational Awareness and a Common Operating Picture. A Joint Information Center will be activated to ensure that accurate, consistent information is being relayed to local officials and the public.

Operational Coordination in the field is critically important to a successful and organized response to HPAI. Additionally, best practices from partner states and federal agencies will be utilized to ensure a cohesive response effort.

Detailed procedures and guidelines have been created to guide state agencies through the six stages of HPAI response:

- Detection
- Site Assessment
- Depopulation
- Disposal
- Decontamination
- Site Clearance/ Repopulation

Since the threat of an outbreak of HPAI is a real and significant concern in the Commonwealth of Massachusetts, this Multi Agency Coordination and Operations Plan has been developed to ensure that our response is rapid and effective. It will serve as the framework through which the Commonwealth's response to HPAI will be executed.

2.0 Purpose

Highly Pathogenic Avian Influenza (HPAI) poses realistic and serious threats to the wild and domestic bird populations in Massachusetts. As seen by the effects of the infection on the Midwest States in 2014 and 2015, its consequences can be catastrophic to domestic and wild fowl, poultry, and related businesses in the event of an outbreak. The effects of such an outbreak in Massachusetts could greatly impact the Commonwealth's economy and population.

To best control the spread of the disease, state response to outbreaks of HPAI will have to be swift and coordinated. As such, designated leaders from several state agencies have worked together to create a state-level multi-agency coordination and operations plan. The purpose of this plan is to effectively and cohesively coordinate multi-agency state response to any potential or actual outbreak in Massachusetts. The following agencies and organizations have a significant role in the execution of this plan:

- Massachusetts 211 (Mass 211)
- Massachusetts Department of Agricultural Resources (DAR)
- Massachusetts Department of Conservation and Recreation (DCR)
- Massachusetts Environmental Police (MEP)
- Massachusetts Department of Environmental Protection (DEP)
- Massachusetts Department of Fire Services (DFS)

- Massachusetts Division of Fisheries and Wildlife (DFW)
- Massachusetts Department of Public Health (DPH)
- Massachusetts Emergency Management Agency (MEMA)
- Massachusetts National Guard
- Massachusetts State Police (MSP)

Agency-specific procedures and guidelines are also in development and will be added as appendices to this coordination and response plan.

3.0 Situation

Highly Pathogenic Avian Influenza (HPAI) is a highly contagious disease among birds that is carried and spread by water fowl and other wild birds. Wild birds, and commercial and backyard poultry flocks are particularly susceptible to this disease. To date, HPAI has not been detected in birds in Massachusetts, New England or other Atlantic coast states.

HPAI is thought to have been introduced into the United States from Eurasia by wild birds migrating along the Pacific flyway and has continued to move eastward to and along the Central and Mississippi flyways (known bird migration routes).

HPAI was first identified in the United States in December 2014 in backyard flocks in the Pacific Northwest, and in two commercial turkey and chicken flocks in California. Since this time, HPAI viruses have been detected in commercial and backyard poultry flocks, wild birds, or captive wild birds in 21 states, with the last case identified in January 2016. Nine states have had infections in commercial poultry farms, with 212 premises affected. Eleven states have had infections in backyard flocks, with 21 premises affected. Efforts to control HPAI have resulted in the destruction of 7.5 million turkeys and 42.1 million egg-layer and pullet chickens, with devastating effects on businesses and at a cost to federal taxpayers in excess of $950 million. The first case in 2016 has resulted in a rapid and coordinated response by local, state, and federal agencies to control its spread.

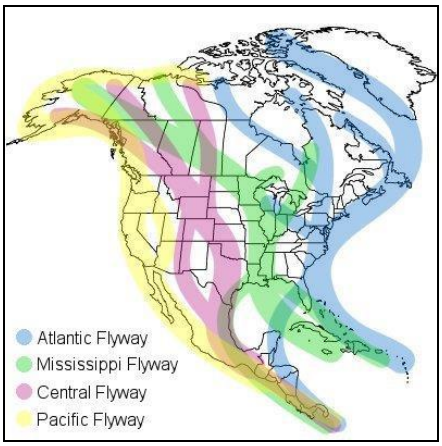

Figure 1: Migratory Flyaway Patterns

The strain of HPAI that heavily impacted the Midwest earlier this year has not yet been shown to spread from birds to humans or other mammals. However, the possibility of transmission of the disease spreading to humans cannot be ruled out.

A number of factors helped to control the 2014-2015 HPAI outbreaks in the Midwest, including depopulation of infected farms and hot summer temperatures. The possibility that HPAI could resurge in the continental United States as migratory birds fly south from Canada to warmer areas in the southern United States for the winter is of great concern. Large populations of migrating birds will travel south over New England and the East Coast, and experts believe that it is highly likely that these birds will spread the disease in New England and along the East Coast. To date, HPAI has not been detected in New England or along the East Coast.

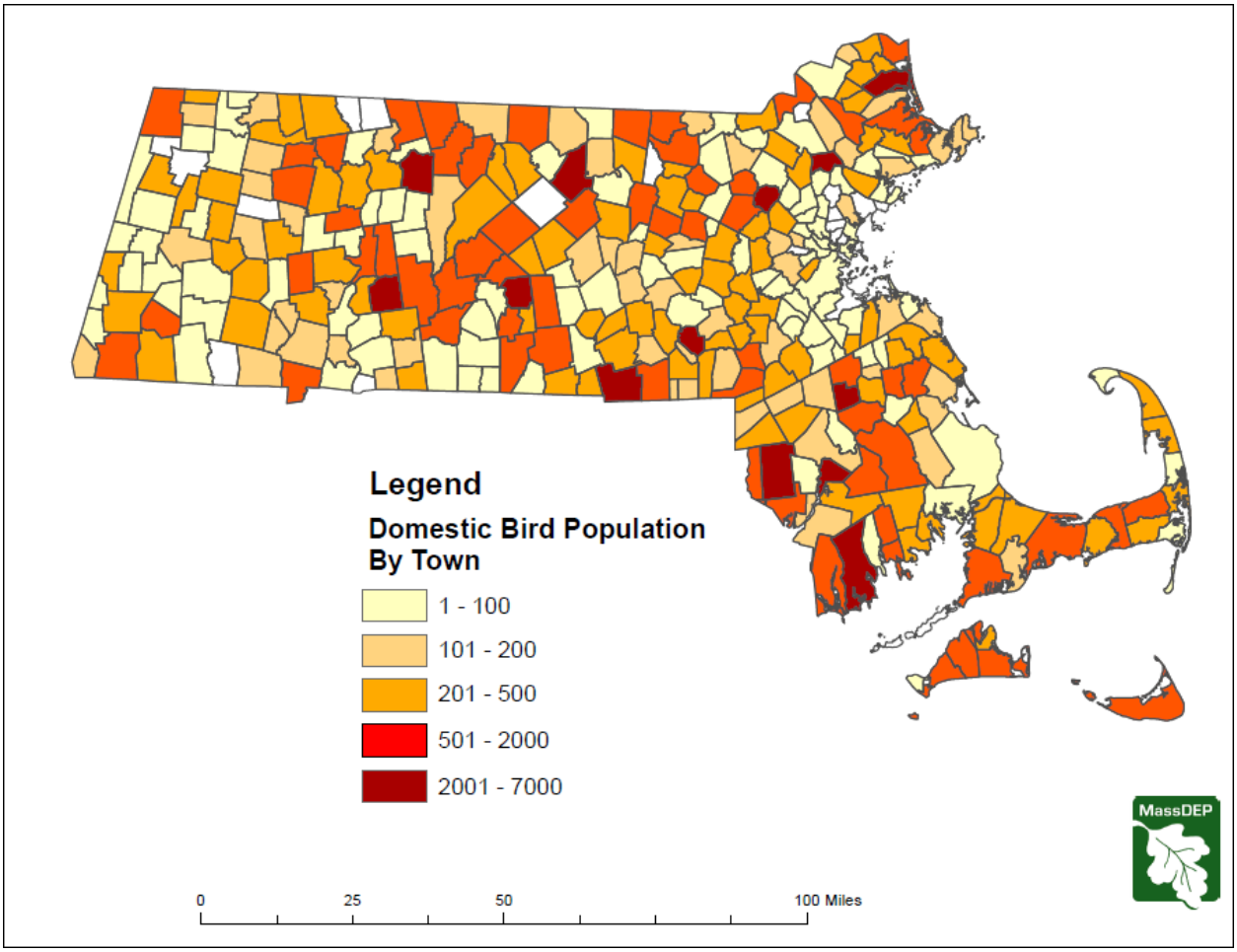

Figure 2: Domestic Poultry Populations in the Commonwealth of Massachusetts

There are over 3,000 poultry farms in Massachusetts consisting of medium to large sized commercial operations, smaller farms and backyard flocks. The largest farm has 60,000 birds onsite with another 10-20,000 at several satellite locations. There are several mid-size farms with 3,000 birds. There are many seasonal broiler and turkey growers with hundreds of free

range birds in the summer, and even more back yard and hobby flocks with flock sizes ranging from a handful to hundreds. Each of these farms are susceptible to HPAI exposure should HPAI arrive in Massachusetts.

To best control the spread of the disease, response actions must take place at every impacted farm or premises. Biosecurity measures are needed at all poultry farms. In accordance with federal guidelines, all birds on an impacted/infected farm or premise must be euthanized, preferably within 24 hours of confirmation of the virus, and remains must be properly disposed. Movement of poultry products to and from infected and at-risk premises must be restricted. All people who are exposed to infected birds will be encouraged to participate in a self-monitoring program under the guidance of public health officials. These activities will require significant state support, resources and coordination.

4.0 Scope, Goals and Objectives

4.1 Scope

The scope of this plan pertains to state agencies designated to respond to an actual or potential outbreak of HPAI, as well as to the federal agencies that will provide significant support. The roles and responsibilities of these agencies are detailed in this plan. This plan serves as a functional annex to the Commonwealth's Comprehensive Emergency Management Plan.

4.2 Goals

The following goals have been established in development of this State Multi-Agency Coordination and Operations Plan regarding potential cases of Highly Pathogenic Avian Influenza (HPAI) within the Commonwealth of Massachusetts. These goals are not listed in order of priority.

- Early detection of HPAI in the Commonwealth;
- Immediate control of the spread of HPAI;
- Rapid eradication of HPAI in infected birds and premises;
- Clearance of infected premises/farms as soon as feasible for repopulation;
- Protection of the health and safety of responders and residents of the Commonwealth;
- Ensure response operations are guided by a comprehensive response plan;
- Establishment of a Command and Control structure for the multi-agency state response to suspected or confirmed cases of HPAI;
- Identification of the roles and responsibilities of the agencies and organizations that will be involved in response operations, including site management, depopulation, poultry carcass disposal, and disinfection;

4.3 Objectives

The following operational objectives have been established for the state response to one or more confirmed or suspected case(s) of Highly Pathogenic Avian Influenza (HPAI). Objectives are not listed in order of priority.

- Maintain situational awareness of suspected and/or confirmed cases of HPAI within the Commonwealth of Massachusetts;
- Coordinate public messaging through a Joint Information Center;
- Identify roles and responsibilities of the responsible lead and support agencies and planned actions of those response partners;
- Identify legal responsibilities and authorities of lead and support agencies involved in the response to an outbreak of HPAI, including those pertaining to decontamination, depopulation, and poultry carcass disposal;
- Identify resource coordination and prioritization protocols;
- Identify facilities, equipment, personnel and other necessary resources that may be made available to support response operations;
- Identify available emergency/financial programs for potential reimbursement to the Commonwealth for costs associated with response operations;
- Ensure that all responders involved in the response – including testing, depopulation, decontamination, and/or disposal of infected or potentially infected birds are trained and provided proper guidance and equipment to conduct their work safely;
- Mitigate the spread of infection in the Commonwealth;
- Ensure the appropriate resources and services are available for decontamination, depopulation, and poultry carcass disposal efforts;
- Utilize the State Emergency Operations Center for command, control, information sharing, and resource coordination during the response to a suspected or confirmed case of HPAI;
- Ensure proper procedures are in place to monitor individuals exposed to infected poultry and or materials involved in the response.

5.0 Lead and Support Agencies and Organizations

In the event of an activation of this plan, there are numerous state and federal agencies that will play a significant role in its implementation. This section of the plan outlines those agencies and their roles in this plan.

5.1 Avian Influenza Working Group

The Avian Influenza Working Group, comprised of representatives from DAR, DFW, DEP, DPH, DFS, MEMA, MEP, MSP, and USDA was established to conduct state-level preparedness and response planning for HPAI. The Avian Influenza Workgroup is responsible for development of the Massachusetts HPAI Multi-Agency Coordination and Operations Plan and for sharing situational awareness about ongoing activities in the Commonwealth as well as national best practices among the Group.

5.2 State Agencies

a. Department of Agricultural Resources

- Conduct routine surveillance and testing of domestic poultry flocks, including testing for avian influenza.
- Provide general guidance to owners of all domestic poultry farms and flocks regarding proper Biosecurity measures.
- Provide notification of all positive test results from domestic poultry flocks to state agencies that will be involved in response operations.
- Issue quarantine orders and ensure Biosecurity orders/standards are implemented for domestic farms/flocks with positive HPAI test result(s) or with birds suspected of having HPAI.
- Identify poultry farms and flocks within a 10km (6.2 mile) radius ("Control Zone") of any positive test result in domestic poultry.
- Conduct enhanced surveillance and testing of domestic poultry within the 10km (6.2 mile) Control Zone around infected premises.
- Conduct flock appraisals and risk assessments of HPAI infected farms/flocks prior to depopulation.
- Authorize/Order, conduct, supervise and/or guide depopulation, disposal, and decontamination activities at HPAI infected premises.
- Issue permits for movement of poultry products within, into, and out of Control Zones and/or infected premises.
- Monitor premises needing to move agricultural products within or out of the 10km (6.2 mile) control zone
- Retest infected premises at appropriate intervals after decontamination and disposal processes are complete. If HPAI virus is detected, repeat the decontamination process until no virus is detected on premises.
- Issue certificates of clearance to premises that have been determined to be free of the HPAI virus.

- Coordinate as necessary with the USDA on response operations and receive appropriate subject matter expertise.
- Coordinate as necessary with the USDA on reimbursement procedures, as well as with state agencies who may be sub-recipients to DAR for reimbursements.
- Coordinate as necessary with local animal control officers and animal inspectors for reporting unusual activity within quarantine zones.
- Coordinate as necessary with DPH on the acquisition of cached equipment from the National Veterinariany Stockpile
- Provide coordinated GIS Support to the SEOC.
- As necessary, support public messaging.

b. Department of Environmental Protection

- Provide staff and/or contractor support to DAR for depopulation of infected poultry flocks.
- Provide staff and/or contractor support to DAR for segregation, packaging, and transport of infected materials to approved solid waste facilities and/or incinerators.
- Provide staff and/or contractor support to conduct gross decontamination of infected areas on infected premises.
- Construct and monitor compost piles on farms capable of composting after depopulation of infected flocks has been completed.
- Coordinate procurement and delivery of bulk composting materials
- Provide staff and/or contractor support to provide technical assistance and/or conduct activities related to composting
- As necessary, coordinate the decontamination of vehicles, workers, and containers associated with state HPAI response operations.
- Coordinate with fire departments (as identified by the Department of Fire Services) with equipment and/or materials to deploy high expansion foam in support of depopulation of infected poultry flocks
- In the event of a positive case of HPAI, contract with, reach agreement with, and deploy fire departments identified by DFS for the use of their equipment and supplies to apply DEP purchased foam.
- Purchase and provide materials and resources – including high-expansion foam - required for depopulation operations
- Purchase and provide resources - including decontamination foam/solution - to support decontamination operations
- Coordinate the transportation and storage of depopulation supplies

- Coordinate the disposal of used personal protective equipment and other contaminated materials associated with state agency HPAI response operations
- As required, coordinate w/ DPH, MSP, MEP and other agencies in the disposal of carcasses and infectious waste, including on-site composting, off-site transportation of waste, and disposal of waste (including incineration).
- As required, provide waivers for commercial incinerators to burn infectious waste and, if necessary, for landfills to accept HPAI waste materials.
- Provide coordinated GIS Support.
- As necessary, support public messaging.

c. Department of Public Health

i. DPH Office of Preparedness and Emergency Management (OPEM)

- Serve as the lead coordinating entity for any human health and medical resources that are needed.
- If resources are needed from the National Veterinary Stockpile, assist in coordinating a request for and delivery of these resources to the state RSS (Receipt, Stage, and Storage) facility, and, as required, oversee RSS facility operations
- Provide situational awareness on health and medical issues to the public health and healthcare community as needed.
- Assist in the development and release of public information related to the level of public health risk.
- Assist in identifying and deploying Medical Reserve Corps or Disaster Behavioral Health Network volunteers from MA Responds who are trained to provide disaster behavioral health support to address the needs of individuals participating in HPAI control activities and the public.
- In the event that testing determines that HPAI has been transmitted to a person in Massachusetts, serve as the lead coordinating office within DPH for the public health response as directed by the Commissioner or designee and in collaboration with other DPH bureaus and offices, and other state agencies.
- In the event that testing determines that HPAI has been transmitted to a person in Massachusetts, collaborate with Bureau of Infectious Disease (BID) and the Commissioner's office to develop guidance for local health and other healthcare stakeholders and work with OPEM to request any medical countermeasures (MCM) that may be needed from the Strategic National Stockpile (SNS).

ii. DPH Bureau of Environmental Health (BEH)

- Collaborate with DEP on waste management options for disposal of bird carcasses and related materials, which are classified as infectious waste.

- As required, work with DEP to identify solid waste facilities to be used for the disposal of infectious waste, and assist in the development of disposal protocols for these facilities.
- Review and make recommendations to the Commissioner or designee regarding approval of protocols for transportation of infectious waste for disposal.

iii. DPH Bureau of Infectious Disease (BID)

- Review relevant guidance from the Centers for Disease Control and Prevention (CDC) and develop/ implement protocols for a monitoring program of workers or other individuals who handled or worked around infected birds.
- Develop guidance for self-monitoring by individuals who come into contact with infected birds.
- Determine the potential role of anti-viral medication such as oseltamivir ("Tamiflu") for chemoprophylaxis for HPAI.
- Encourage seasonal flu vaccinations for individuals working with poultry in commercial or backyard settings.
- Work in collaboration with DAR and USDA to provide information to Massachusetts poultry industry representatives on ways to prevent the spread of infection in their flocks (Biosecurity measures).
- Assist in the development and release of information to the general public related to the level of public health risk and steps that can be taken to decrease the possibility of transmission.
- In the event that testing determines that HPAI has been transmitted to a person in Massachusetts, collaborate with OPEM and the Commissioner's office to develop guidance for local health and other healthcare stakeholders.
- Coordinate with OPEM to request any medical countermeasures (MCM) that may be needed from the Strategic National Stockpile (SNS).
- Consult with CDC as necessary.

iv. DPH State Laboratory Institute

- If requested, conduct appropriate influenza testing of provided samples to rule out HPAI in workers who develop respiratory symptoms after exposure to infected birds.
- In the event that testing determines that HPAI has been transmitted to a person in Massachusetts, collaborate with OPEM, BID and the Commissioner's office to develop testing guidelines and protocols.

v. Department of Mental Health

- As needed, provide crisis counseling services to citizens affected by an outbreak in their flock.

- As needed, assist in arranging Critical Incident Stress Management (CISM) services for responders.

d. Massachusetts Emergency Management Agency

- Coordinate the drafting and updating of the State HPAI Multi-Agency Coordination and Operations plan.
- Coordinate information sharing amongst the Unified Command Group and the Avian Influenza Working Group.
- Support the operation of a Unified Command Center and State Emergency Operations Center (SEOC) at MEMA Headquarters.
- Within the structures of the Unified Command Center and SEOC, coordinate state response and resource allocation efforts.
- Coordinate public information activities of state agencies.
- Coordinate the dissemination of situational awareness products and the maintenance of a common operating picture.
- Coordinate the support and involvement of Mass 2-1-1 in public information efforts.
- As required, coordinate with the Governor's Office on whether to issue a gubernatorial state of emergency in the event of a confirmed finding of HPAI.
- As required, draft the Governor's Emergency Declaration, and coordinate with other agencies to determine emergency orders/directives/measures that may need to be included in the Declaration.
- As required, coordinate resource support from other states through EMAC or IEMAC.
- As required, coordinate resource support from the federal government in coordination with FEMA.
- Support GIS mapping of farms/flocks within a 10km (6.2 mile) radius of the positive HPAI result.
- As required, coordinate with the Governor's Office and FEMA to request a federal emergency declaration or presidential disaster declaration.

e. Department of Fire Services

- In advance of a positive case of HPAI, identify local fire departments with resources (application equipment and supplies) capable of deploying high-expansion foam for depopulating poultry flocks. This information will be shared with DEP. In the event of a positive case, DEP will take the lead in contracting with, reaching agreement with, and deploying such departments for the use of their equipment and supplies to apply DEP purchased foam.
- Provide just-in-time training for response personnel on use of personal protective equipment.

- Provide technical expertise on the PPE needs for state agencies involved in response operations.
- Conduct initial reconnaissance of properties identified as containing infected birds, and produce and provide to the SEOC detailed site plans delineating contaminated areas and areas where decontamination activities will take place.
- Provide assistance in establishing property Biosecurity procedures and protocols, including emergency decontamination of farms/premises that have positive cases of HPAI
- Provide assistance for establishing property Biosecurity procedures and emergency decontamination of personnel and vehicles involved in response operations at infected farms/premises
- Provide technical advice and support in managing hazardous and infectious materials and in controlling the spread of the disease to other animals or humans

f. Division of Fisheries and Wildlife

- Conduct routine surveillance and testing of wild birds for avian influenza.
- Coordinate testing and surveillance on farms containing permitted wild species
- Issue quarantine orders for farms with propagated, captive wild bird flocks with positive HPAI test result(s) or with birds suspected of having contracted HPAI.
- Authorize and/or order the depopulation of propagated, captive wild flocks on premises with HPAI-infected birds.
- Respond to reports from the public of dead or ill wild birds and conduct testing of the specimens for HPAI as appropriate.
- Provide notification to the Avian Influenza Unified Command Group of positive test results.

g. Massachusetts Environmental Police

- As required, provide personnel to support law enforcement security operations at quarantined/infected premises.
- As required, provide personnel for enhanced monitoring of Biosecurity measures, and compliance with quarantine orders, on/around infected premises and within 10km (6.2 mile) control zones.
- Assist in designating approved routes for shipment of waste materials.

h. Department of Conservation and Recreation

- Provide materials needed for on-site composting of carcasses/infectious waste on depopulated farms.

i. Massachusetts National Guard

- As directed, provide personnel to response operations, including but not limited to site assessment and management activities, security and surveillance operations, flock depopulation, transportation, GIS mapping, or other activities.

j. Massachusetts State Police

- Provide personnel to support law enforcement security operations at quarantined/infected premises.
- As requested, provide personnel for enhanced monitoring of Biosecurity measures, and compliance with quarantine orders, on/around infected premises and within 10km (6.2 mile) control zones.
- Assist in designating approved routes for shipment of waste materials.

k. Mass 211

- As needed, field telephone reports from the public of dead or diseased birds, both domestic and wild.
- Ensure that reports are accurately recorded and passed on to the SEOC or MEMA's 24/7 Communications Center in a timely fashion for coordinated information flow and determination of potential response actions.
- As needed, serve as a source of information for the public, who may call with questions or concerns. Refer callers with questions beyond the capacity of 211 to answer to appropriate state agencies or resources.
- As requested and provided by the Commonwealth, provide timely and accurate information on Mass 211's website.

l. Other State Agencies

- Other agencies not listed may have authorities, resources, capabilities, or expertise required to support response operations. These agencies may be requested to participate in the response as needed.

5.3 Federal Agencies

a. US Department of Agriculture

- In coordination w/ DAR, conduct both routine surveillance and testing (as available) of domestic poultry flocks (APHIS Veterinary Services), including testing for avian influenza.
- In coordination w/ DFW conduct routine surveillance and testing of wild bird populations for HPAI (US Fish and Wildlife Service).
- In coordination w/ DAR, respond to infected premises to conduct depopulation, disposal, and decontamination activities.
- In coordination w/ DAR and DPH, supply cached equipment and PPE to affected areas (APHIS Veterinary Services/ National Veterinary Stockpile (NVS)).

- In coordination with DAR, provide reimbursement and indemnity payments to farm owners/ bird owners in accordance with USDA policies.
- In coordination with and through DAR, provide reimbursement to state agencies for eligible HPAI response activities.
- In coordination with DAR, provide support for EMRS to enable situational awareness and common operating picture, including the software, training, and staff needed for its operation
- As needed, assist MEMA with the PDA process if a Presidential Disaster Declaration is being investigated.

b. Federal Emergency Management Agency

- As requested by MEMA and authorized by federal law and regulation, coordinate the provision of direct federal assistance.
- As requested by MEMA and authorized by federal law and regulation, conduct Preliminary Damage Assessments.
- If a request for the presidential disaster declaration is submitted by the Governor, review the request and submit a recommendation to the President.
- If a presidential disaster declaration is issued, coordination of federal disaster assistance in collaboration with MEMA.

6.0 Legal Authorities

The following list serves as a reference of applicable legal authorities which may apply if there is an HPAI outbreak or the HPAI Coordination and Operations Plan is activated:

MA Department of Agricultural Resources

- MGL c. 129, §2 – Grants authority to DAR's director of animal health to make and enforce reasonable orders, rules and regulations relative to the examination, quarantine, care and treatment or destruction of domestic animals affected with or exposed to contagious disease, the burial or other disposal of their carcasses and the cleansing and disinfection of premises where contagion exists or has existed.
- MGL c. 129, §6 – Sheriffs and police officers "shall" assist director or inspector upon request.
- MGL c. 129, §7 – Permits "the director, any of his agents or an inspector" to enter any building, enclosure, or other place to inspect or examine animals or the places they are kept.
- MGL c. 129, 11 – Permits the director to order the isolation or killing of a domestic animal if the public good requires such. An order for killing shall be issued in writing by

the director and shall contain such direction as to the examination and disposal of the carcass and the cleansing and disinfection of the premises.

- MGL c. 129, §21 – Permits an inspector who, after examining a domestic animal has reason to believe it is affected with a contagious disease shall immediately cause it to be quarantined or isolated for at least 10 days. Take other sanitary measures to prevent the spread of such disease as may be necessary or as ordered by the director.
- MGL c. 129, §22 – Requires service of notice of quarantine to be served by inspector or officer qualified to serve civil process.
- MGL c. 129, §30 – Permits fines and imprisonment for violation of isolation or quarantine orders.
- MGL c. 129, §37 – Permits the Commissioner of Agriculture or his designee to impose fines for violations of any rules, regulations, orders, licenses or permits issued under this chapter. Establishes concurrent jurisdiction to enforce this chapter and to restrain violation in both Superior and District court. Allows application for an injunction in order to protect human or animal health without alleging or proving the lack of other adequate remedies at law.

MA Department of Public Health

- MGL c. 17 §2A - Powers of the commissioner of public health upon declaration of a public health emergency by the governor.
- MGL c. 111 §31A – Removal or transport of garbage through town or city streets requires permit from local board of health. Motor vehicles owned by the Commonwealth or any of its political subdivisions and motor vehicles engaged under contract with the Commonwealth in the transportation of garbage or refuse are exempt from this provision.
- 105 CMR 480.000 – Establish minimum requirements for the management of medical or biological waste (which is defined at 105 CMR 480.010 to include animal waste infected with avian influenza). 105 CMR 480.550 states the following conditions under which DPH may approve, in writing, alternative methods not authorized by 105 CMR 480.000 for the treatment, storage or disposal of medical or biological waste : (1) an application has been submitted to DPH; (2) the method has been validated by scientific studies acceptable to the DPH; and (3) that method has been approved by DPH's Medical and Biological Waste Alternative Treatment Review Group; and (4) if the waste it to be transported off-site, the waste treatment facility has been approved by MassDEP or, if shipped out of state, by the appropriate agency in that state.

MA Department of Fisheries & Wildlife

- MGL c. 131 §25A – Permits Director of Fisheries and Wildlife to issue and serve a quarantine order to owner or person in charge of premises who he has reason to believe possess a wild or undomesticated bird afflicted with a contagious or infectious disease.
- MGL c. 131 §25B – Permits Director to issue an order of destruction of a quarantined bird if so required by the "public good". Order shall also include directions for the disposal of the carcass and the disinfection of the premises.
- MGL c. 131 §25C – Sets forth penalties for violation of quarantine orders.

Executive Office of Environmental Affairs

- MGL c. 21A §10C – Grants wardens, environmental police officers and deputy environmental police officers police powers throughout the Commonwealth, subject to rules and regulations adopted by the director of law enforcement.
- MGL c. 21A §10E – Permits wardens, environmental police officers and deputy environmental police officers enter upon and pass through private lands in the performance of their duties.

MA Department of Environmental Protection

- M.G.L. c. 111, §150A –Gives broad authority to the Department to issue permits to solid to waste facilities and states for the disposal of solid waste including the authority to condition those permits in order to protect the public health.
- 19.061(3) (b): Management Requirements for Medical or Biological Waste – This regulation requires that no biological waste can be disposed of at a landfill or incinerator unless the waste is rendered non-infectious pursuant the requirements of DPH's regulations at 105 CMR 480.000: *Minimum Requirements for the Management of Medical or Biological Waste (State Sanitary Code Chapter VIII)*.
- 310 CMR 19.034 and 19.031(a)—Set out a prior notice and approval procedures for acceptance of biological waste or modification of a facility permit
- 310 CMR 19.007(1) – Permits MassDEP staff and authorized representatives to enter any facility or other property where solid waste is located to "protect the public health, safety or the environment," provided staff and authorized representatives receive consent. MassDEP staff and authorized representatives may enter without consent "if emergency conditions require immediate entry, or as otherwise authorized by law."
- 310 CMR 19.007(4) – Requires owners and operators of facilities or other property not to restrict, impede or delay an inspection by MassDEP personnel or authorized representatives where the inspection request was reasonable or otherwise authorized by law.

- 310 CMR 19.007(5)—If access is denied or the Department cannot locate the owner, operator or person in control of the facility of property, the Department may seek a warrant from a court, judge, justice or magistrate.
- G.L. c. 111, § 2B – Authorizes the commissioner of MassDEP to declare an air pollution emergency if the commissioner determines the condition or impending condition of the atmosphere constitutes a present or reasonably imminent danger to health. "Air contaminant" is defined in the statute to include "microorganisms." The statute requires notification to the public and authorizes the Commissioner, with the approval of the governor, to take "whatever action is necessary to maintain and protect the public health." Any orders promulgated by the Governor pursuant to this section shall be enforced by DPH personnel and state and local police. In the event of a violation of an emergency order issued pursuant to this section, a court, judge or justice authorized to issue warrants in criminal cases, may issue search warrants. Enforcement personnel may also issue orders to stop and abate violations of emergency orders.
- 310 CMR 8.00—Regulations to prevent ambient air concentrations at any location from reaching levels which "would constitute significant harm, or imminent and substantial endangerment to the health of persons." 310 CMR 8.02 defines "air contaminant" to include "microorganism", and "air pollution" means concentrations of contaminants that, inter alia, are "injurious to human or animal life, to vegetation, or to property", or "unreasonably interferes with the comfortable enjoyment of life and property or the conduct of business." 310 CMR 8.15 states the commissioner shall declare an Air Pollution Incident Emergency (APIE) when the commissioner deems advisable "to prevent or abate a condition or impending condition which constitutes a present or reasonably imminent danger to public health." Upon declaration of an APIE the commissioner shall assume and exercise such authority "may deem necessary to effect a prevention or an abatement of the conditions which occasioned the declaration of the APIE."

MA Emergency Management Agency

- Chapter 639 of the Acts of 1950 (MA Civil Defense Act) – Identifies MEMA as the lead state agency to coordinate a state response to an emergency or disaster
    - Outlines the powers of the Governor during a declared state of emergency

7.0 Emergency Declarations: Purpose and Authorities

7.1 Gubernatorial State of Emergency

The Governor of the Commonwealth has the power to declare a Gubernatorial State of Emergency upon the occurrence of a natural or manmade disaster. A State of Emergency may apply to a specific city or town, multiple communities or counties, or to the entire Commonwealth, and gives the Governor broad authority to implement emergency measures to ensure the safety and health of the residents of the Commonwealth, take appropriate steps to mobilize state assets, and take other emergency actions for the protection of the Commonwealth. Actions such as issuing quarantine, isolation or evacuation orders, restricting access to given areas, implementing curfews, taking property or assisting with access to property, rationing supplies, imposing driving bans or travel restrictions, waiving regulatory or statutory requirements, waiving minimum time frames for obtaining permits, and authorizing emergency procurements, may be implemented as part of the declaration if circumstances warrant. However, a State of Emergency itself does not automatically trigger any ban or restriction; the Governor issues subsequent Executive Orders to impose specific restrictions, orders or waivers to meet the needs of a threat, emergency, or disaster. These Executive Orders have the force of law and supersede existing law if there is any conflict between a law and the Executive Order.

7.2 Presidential Disaster Declaration

The Governor may request that the President issue an Emergency Declaration or a Major Disaster Declaration under the Stafford Act. The Governor's request will be submitted to the President through the FEMA Regional Administrator. The request must be submitted within 30 days after the onset of the disaster and at a minimum must include the following information:

- Justification for the request
- Magnitude and severity of the disaster
- Types of disaster assistance needed
- Federal, state, and local resources which have been or will be committed to respond to the incident
- Estimated Federal funds needed
- Certain required certifications. MEMA maintains a list of appropriate request criteria and needed certifications.

Upon receipt of the request, the FEMA Regional Administrator will formulate a recommendation that will be forwarded to the President for action along with the original request.

Following the issuance of an Emergency or Major Disaster Declaration, the Governor and the FEMA Regional Administrator will enter into an agreement that stipulates:

- Areas eligible for Federal assistance
- Programs being made available
- Division of costs between the state and Federal government
- The time period over which assistance will be provided
- Other specific conditions for receiving Federal disaster assistance

Whenever the President declares a Major Disaster Declaration or an Emergency Declaration, USDA Farm Service Agency (FSA) will make emergency loans available to eligible applicants in declared and contiguous counties, provided that the Presidential declaration is not solely for Category A or Category B Public Assistance or Hazard Mitigation Grant Assistance, AND the Presidential Major Disaster declaration is for losses due to severe, general disaster conditions including but not limited to conditions such as flood, hurricane, or earthquake.

7.3 USDA Disaster Declarations

The USDA Farm Service Agency (FSA) administers three types of disaster declarations:

- USDA Secretarial Disaster Designation
- FSA Administrator's Physical Loss Notification
- Secretarial Quarantine Designation

a. USDA Secretarial Disaster Designation

The Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans to producers suffering losses in those counties and in counties that are contiguous to a designated county. In addition to emergency loan eligibility, other emergency assistance programs, such as FSA disaster assistance programs, have historically used disaster designations as an eligibility requirement trigger.

Eligible natural disasters are disasters in which damaging weather conditions or other adverse natural occurrence phenomena have substantially affected farmers causing severe production losses. Eligible natural disaster conditions include drought, flooding, excessive rain and humidity, severe storms, lightning, hail, mudslides and landslides, snow, ice, blizzards, frost, freeze, below-normal temperatures, wind, tornadoes, hurricanes, typhoons, tropical storms, fire, excessive heat, volcanoes, pests and disease.

For natural disaster occurrences, a county must either show a 30 percent production loss of at least one crop or a determination must be made that other lending institutions will not be able to provide emergency financing.

A disaster designation specifies:

- The disaster that resulted in the designation;
- The incident period (dates) of that disaster;
- The specific counties included in the designation.

Requests for a USDA Secretarial disaster designation are made to the Secretary of Agriculture by a Governor or Governor's Authorized Representative, an Indian Tribal Council leader, or by an FSA State Executive Director (SED).

b. FSA Administrator's Physical Loss Notification (APLN)

When only qualifying physical losses (including livestock) occur as a result of a disaster, the FSA SED can submit a request to the FSA Administrator to make a determination that a natural disaster has occurred in a county, resulting in severe physical losses. If the FSA Administrator determines that such a natural disaster has occurred, then emergency loans can be made available to eligible farmers for physical losses only in both the primary county (the county that was the subject of that determination) and the counties contiguous to that county.

c. Secretarial Quarantine Designation

Any quarantine imposed by the Secretary of Agriculture under the Plant Protection Act or the animal quarantine laws, as defined in section 2509 of the Food, Agriculture,
Conservation, and Trade Act of 1990, automatically authorizes emergency loans for production and physical losses resulting from the quarantine in a primary county (the county in which the quarantine was in force) and (where the quarantine effects extend beyond that county) the counties contiguous to that primary county. A quarantine designation is requested of the Secretary of Agriculture by an FSA SED.

8.0 Command and Control

The SEOC at MEMA Headquarters in Framingham will serve as the state's command and control center. State response operations will be directed from the SEOC under a Unified Command structure. All lead and supporting agencies identified in this Plan will assign staff to work in the SEOC with the authority to commit resources. Additionally, lead and support state agencies may activate their individual operations centers to support the SEOC and tactical response operations. Local communities may also activate local EOCs to coordinate response with the SEOC.

Upon notification by DAR of a confirmed or suspected case of HPAI in a domestic bird on a farm or premises, or upon notification by DFW of a confirmed or suspected case of HPAI in a wild bird, MEMA will use the Health and Homeland Alert Network (HHAN) system to initiate a conference call between the members of the Avian Influenza Unified Command Group (UCG). The UCG is comprised of designated representatives of the primary state response agencies.

A decision to activate the State Emergency Operations Center will be determined after discussion between members of the UCG. The SEOC may be activated to a Level II (Partial Activation) or Level III (Full Activation) (see Figure 3). If response operations are going to be initiated, the MEMA Director will implement the decision of the UCG to activate the SEOC. As required, the SEOC will support, coordinate, and command response operations.

LEVEL	DESCRIPTION
1 STEADY STATE / MONITORING	**Steady State / Monitoring:** MEMA is at normal staffing and is monitoring the situation on a 24/7 basis.
2 PARTIAL ACTIVATION	**Partial Activation:** The SEOC is activated and staff is on duty. Some General and Command Staff are activated, as well as some Emergency Support Functions. Limited requests for assistance are anticipated, and/or enhanced operational planning is occurring with an expectation that the SEOC may go to a Level 3 (full activation).
3 FULL ACTIVATION	**Full Activation:** The SEOC if fully operational. All needed General and Command Staff positions are filled and all needed Emergency Support Functions are activated.

Figure 3: State Emergency Operations Center Activation Levels

8.1 SEOC Organization

The SEOC will operate under the Incident Command System (ICS) and will be organized into functional sections, branches, and units/groups that are coordinated and directed by the Unified Command Group (UCG). The UCG is comprised of senior leaders from the key state response agencies. The SEOC Manager will work under the direction of the UCG and will be responsible for implementing their priorities, objectives and directives and managing the operational activities of the five ICS sections: Operations, Planning, Logistics, Finance and Recovery. Within each section are several branches and/or units/groups, as detailed in Table 1.

Table 1: SEOC ICS Sections, Branches and Units/Groups

Section	Branch	Units/Groups
Operations Section	Emergency Support Function	Emergency Support Functions
		Site Management-Specialized Mission Group
		Depopulation-Specialized Mission Group
		Waste Management-Specialized Mission Group
	Resources Branch	Resource Unit
		Mutual Aid Unit
		Commodity Transport Unit
	Field Services Branch	Field Assets Unit
		State Staging Area Unit
		Points of Distribution (POD) Unit
Planning Section		Situation Unit
		GIS Unit
		Technical Advisors
Logistics Section		Supply and Food Unit
		Facilities Unit
		Information Technology Unit
		Communications Unit
Finance/ Administration Section		Procurement Unit
		Time Unit
		Cost Unit
Recovery Section		

a. Unified Command Group

The UCG will be comprised of representatives of the following state agencies:

- Department of Agricultural Resources
- Department of Environmental Protection
- Department of Fire Services
- Division of Fisheries and Wildlife
- Department of Public Health
- MEMA

The UCG is supported by the SEOC Manager and the Command and General Staff.

b. SEOC Command and General Staff

Priorities, objectives, direction and control will be determined by the UCG and implemented by the SEOC Manager. The SEOC Manager is supported by the SEOC Command and General Staff, which consists of:

- Deputy SEOC Manager
- SEOC Liaison
- General Counsel
- Public Information Officer
- MEMA Regional EOC Managers
- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance Section Chief
- Recovery Section Chief

The Section Chiefs will have staff assigned to them who are broken out into Branches and Units/Groups.

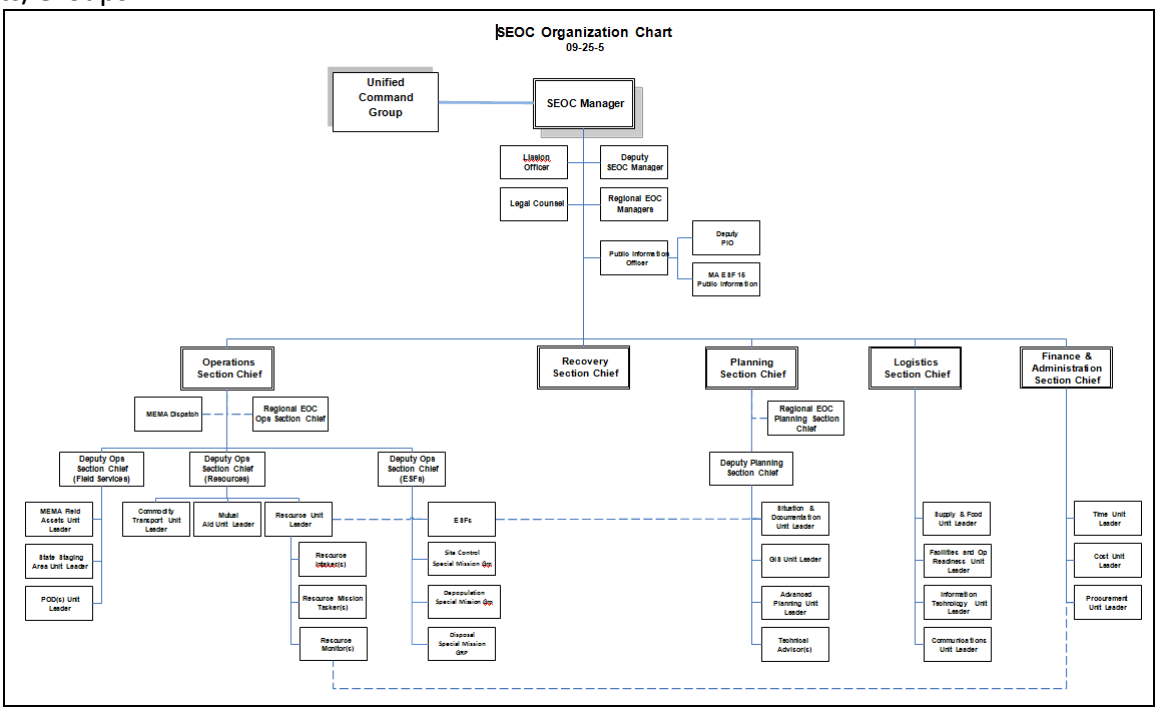

Figure 4: State EOC Organization Chart

c. Operations Section

To best support the implementation of this Plan, the Operations Section will have a designated Emergency Support Function (ESF) Branch which includes a Unit for ESFs and three Specialized Mission Groups (SMGs) focused on three critical missions: Site Management, Depopulation, and Waste Management.

i. Emergency Support Function Unit

To support the ESF Unit, ESF Partners will be expected to staff the SEOC when it is activated. Initially, the ESFs that will be activated are:

- ESF 4: Firefighting
- ESF 8: Public Health and Medical Services
- ESF 10: Hazardous Materials and Environmental Protection
- ESF 11: Agriculture, Animals, and Natural Resources
- ESF 13: Public Safety and Security
- ESF 15: Public Information and External Affairs
- ESF 16: Military Support

As required, additional ESFs may be activated.

ii. Specialized Mission Groups

The Specialized Mission Groups (SMGs) have assigned missions to support three critical functions: Site Management, Depopulation, and Waste Management. Several agencies, each associated with their specific ESF, will support these SMGs.

- Site Management Specialized Mission Group: The Site Management SMG will coordinate all site assessment and management activities on/about infected premises, at-risk premises, contact premises, and within 10km (6.2 mile) control zones, including but not limited to flock monitoring and surveillance, initial site assessments, establishment of "hot zones" on infected premises, site mapping, issuance of quarantine orders and Biosecurity measures, issuance of permits for transportation of birds, bird products, and other agricultural products within, into, and out of control zones, post-depopulation site activities, and determining when infected premises no longer pose risks and may be repopulated. Agencies assigned to the Site Management SMG are DAR, DFW, DEP, MEMA, MSP, and MEP.
- Depopulation Specialized Mission Group: The Depopulation SMG will coordinate all aspects of depopulation activities and operations on infected premises, including determining depopulation methods, ensuring the availability of necessary resources, coordinating and tracking personnel and contractor operations, and tracking depopulation operations. Agencies assigned to the Depopulation SMG are DAR, DFW, DEP, DFS, and MEMA.
- Waste Management Specialized Mission Group: The Waste Management SMG will

coordinate all aspects of the disposal of carcasses after depopulation and all hazardous/infected waste, including determining the methods of disposal, coordinating and tracking disposal operations, overseeing on-site composting (where applicable), coordinating transportation to incinerator or other disposal sites (where applicable). Agencies assigned to the Waste Management SMG are DAR, DFW, DCR, DEP, DFS, MEP, MSP, DPH and MEMA.

Because of the complexity of an incident such as this, which has the potential of spanning several communities and geographic areas, span of control is of the utmost importance. As such, implementation of Area Command may be considered to assist in maintaining appropriate span of control. Additionally, the use of specially trained incident management teams may be considered to augment field and SEOC operations and to help maintain an appropriate degree of span of control.

9.0 Situational Awareness and Information Sharing

Maintaining situational awareness and establishing a common operating picture is critical for all agencies and organizations involved in the response to potential or actual cases of HPAI in Massachusetts.

The SEOC will use the following information-sharing platforms and communications tools to provide essential information to public safety partners:

- WebEOC
- Emergency Management Response System
- Geographic Information Systems
- Situational Awareness Statements
- Incident Action Plans
- Briefings

9.1 WebEOC

WebEOC is one of the primary incident management tools utilized by MEMA, local emergency management agencies, and numerous regional, state and federal agencies and organizations to share situational awareness and manage resource requests and mutual aid during major incidents and disasters.

For an HPAI incident, WebEOC will function as the SEOC's primary platform for recording, tracking and sharing information with public safety and state agency partners, and managing resource requests and mutual aid related to HPAI. A WebEOC “Event” will be created specifically for tracking and managing HPAI response operations. Within the WebEOC HPAI Event, a number of boards will be utilized to manage information and track resources. These boards include but are not necessarily limited to the following:

- Significant Events Board: The Significant Events Board will serve as the general situational awareness and common operating platform to provide overall awareness of response activities.
- Site Status Board: The Site Status Board will be used to capture and share information that is specific to sites (infected premises, at-risk premises, contact premises) and control zones. This will allow for comprehensive tracking and sharing of information about response actions at, or pertaining to specific sites or controls zones.
- File Library: The File Library will be used to save, store, and share plans, maps and documents pertaining to HPAI response operations.

Access to the WebEOC HPAI Event Boards will be provided only to those individuals, agencies and organizations that have a demonstrated need for access to the information. All personnel, agencies and organizations working within the SEOC and supporting HPAI response operations will be expected to utilize WebEOC as the primary platform for documenting, tracking and sharing information about HPAI response operations.

A WebEOC user guide is available in the WebEOC File Library, which is accessible after logging in to WebEOC.

9.2 Emergency Management Response System

The Emergency Management Response System (EMRS) is a web-based tool used by USDA APHIS Veterinary Services to manage information related to routine investigations of foreign animal disease (FAD), state-specific disease outbreaks, and other national animal health emergencies. EMRS helps provide timely and effective responses to animal health emergencies by streamlining the collection, management, and analysis of data from FAD investigations and other incidents. EMRS facilitates animal traceability, managing information on permits, movements, tracing, animal records, and animal identification. Based on their EMRS user roles, federal and state veterinary medical officers, animal health technicians, and various disease specialists and epidemiologists (state and federal) are able to:

- Collect and view animal disease data
- Manage service activities
- Manage resources
- Create reports
- Create maps of specific areas

USDA and/or DAR will have access to, and utilize EMRS in the SEOC and will post information from EMRS into WebEOC, and from WebEOC into EMRS, as necessary and required.

9.3 Geographic Information Systems (GIS)

If the State EOC is activated, a GIS Unit will be stood up within the Planning Section. The GIS Unit will utilize both pre-populated geospatial information and new data sets as needed to

support incident operations and situational awareness requirements. Graphic products may include situation maps, briefing maps, and live, interactive web mapping, and mobile GIS applications. The GIS Unit will produce map products on demand as needed. As necessary and possible, GIS products will be shared via MEMA's ArcGIS and WebEOC platforms.

9.4 Situational Awareness Statements

When the SEOC is activated for HPAI response operations, the Situation Unit will prepare Situational Awareness Statements (SASs) as circumstances warrant and as directed by the Unified Command Group. SASs will provide timely information on the status of the overall response and on significant incidents, actions and decisions.

SASs will be posted in WebEOC and disseminated via email to stakeholders.

9.5 Incident Action Plans

When the SEOC is activated, the Planning Section will issue Incident Action Plans (IAPs) as necessary and as determined by the Unified Command Group. The IAP identifies the objectives and priorities for the operational period and provides essential information regarding organization, position assignments, communications information, briefings schedule and weather conditions. The IAP will be distributed to all SEOC representatives and will be posted to the WebEOC File Library.

9.6 Briefings

While the SEOC is activated, regular briefings will be conducted for all personnel assigned to the SEOC.

At the discretion of the Unified Command Group, personnel in the MEMA Regional EOCs and other facilities may be invited to participate in briefings via a virtual teleconference system and/or conference call bridge. A conference call bridge will be dedicated for these briefings.

The SEOC will publish a schedule of briefings in each day's Incident Action Plan. In addition to scheduled briefings, the SEOC will conduct briefings as circumstances warrant to exchange information and discuss incidents/events, critical decisions, resource needs, mutual aid, etc. Advance notice of all briefings will be disseminated via WebEOC, by telephone, and through the MEMA Regional EOCs and agency/organization representatives present in the SEOC.

10.0 Public Information

In the event that the State Emergency Operations Center is activated under the Plan, a Joint Information Center (JIC) will be established under the command of the Unified Command Group for the purpose of coordinating, developing and disseminating public messaging. The JIC may operate virtually in-whole or in-part, or it may operate with all its members working in the SEOC.

It is recommended that the following agencies have a primary presence in the JIC or have a contributing voice to the development of any joint agency communications:

- Governor's Office
- Executive Office of Energy and Environmental Affairs
- Executive Office of Health and Human Services
- Executive Office of Public Safety and Security
- DFS
- MSP
- MEMA
- DAR
- DFW
- DEP
- MEP
- DCR
- MDPH

In addition to the activation of a JIC, Mass 211 will be utilized as a public reporting and answering point for questions and resources. As a reporting mechanism, the public will be able to call 2-1-1 to report dead or suspicious domestic or wild birds. Once reports are received, Mass 211 will pass on the information to MEMA HQ for further actions as needed. If the SEOC is activated, the report will be passed directly to the SEOC. If the SEOC is not activated, then the report will be passed to MEMA's 24/7 Communications Center, who will relay the information to DAR and/or DFW. Additionally, as an information resource, members of the public and affected populations may call 2-1-1 to ask questions and obtain information related to HPAI.

11.0 Operations Coordination

For the response to a suspected or confirmed case of HPAI to be effective, it must be swift and coordinated. As such, a detailed command, control and operations coordination plan is outlined in this section of the Plan.

11.1 HPAI Operational Phases

Under this Plan, HPAI response operations are categorized in six phases:

- Detection
- Site Assessment

- Depopulation
- Disposal
- Decontamination
- Site Clearance/ Repopulation

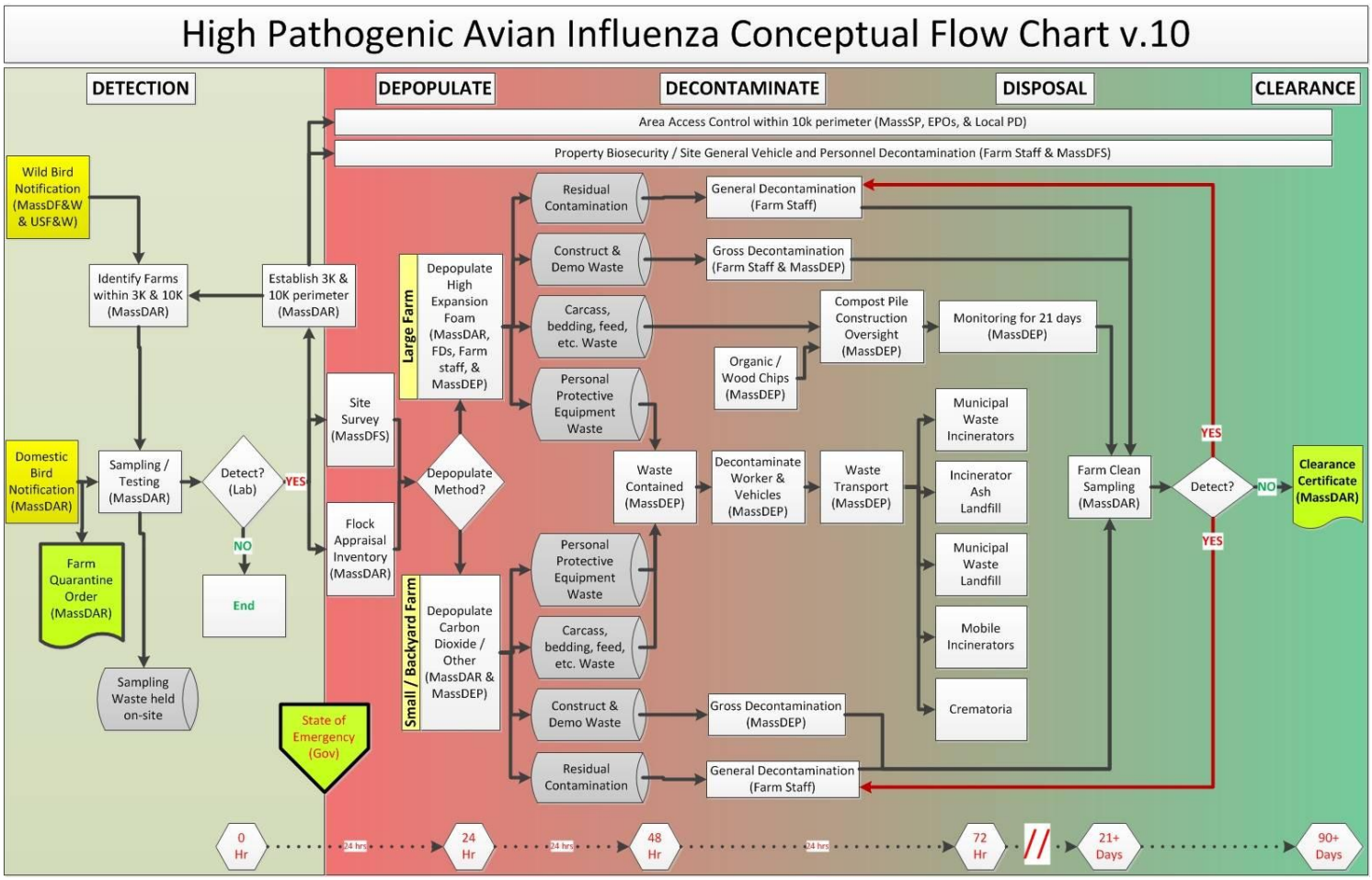

Figure 5: HPAI Conceptual Flow Chart

Response operations for each phase may be summarized as follows:

- <u>Detection Phase</u>
  - Detection phase includes activities to conduct surveillance of avian populations (wild and domestic) and identify potential or actual cases of HPAI. There are three components of the Detection Phase: Surveillance, Testing and Notification.
  - Surveillance: DAR and DFW have ongoing surveillance and detection programs that involve routine sampling of wild birds and domestic poultry.

- Testing: DAR and DFW initiate testing procedures if they have reason to believe that one or more deaths of wild birds or domestic poultry may be attributable to HPAI.
- Notification: DAR and DFW will make appropriate notifications to state response partners regarding out of the ordinary events, suspected cases of HPAI, and confirmed cases of HPAI.
- When the SEOC is activated, the Detection Phase is supported by the Site Management SPG.

- Site Assessment Phase
  - The Site Management Phase includes activities to manage the spread of HPAI on infected, contact or at-risk premises. These activities include Quarantine, Site Assessment and Management, Control Zones, and Clearance.
  - If there is a positive result for HPAI in a domestic bird on a farm or in a flock:
    - A quarantine order will be issued to the infected premises to prohibit the movement of bird and bird products onto or off of the premises and mandate Biosecurity measures.
    - The infected premises will be assessed, areas of contamination ("hot zones") identified and mapped, and flock appraisals conducted.
    - A 10km (6.2 mile) "Control Zone" will be established around the infected premises and all domestic poultry farms/flocks within the 10km (6.2 mile) control zone will be identified and classified as "At-Risk" Premises (those that do not currently have a positive and have not engaged in activities that would directly expose them to HPAI) or "Contact" Premises (those that do not currently have a positive, but have engaged in activities that directly expose them to HPAI);
    - Outreach will be made to all At-Risk and Contact Premises, Biosecurity measures will be implemented on these premises, and restrictions on the movement of birds and bird products will be implemented.
    - Names and information of those who came into contact with infected birds will be collected and sent to DPH for follow up and self monitoring if warranted.
  - When the SEOC is activated, the Site Assessment Phase is supported by the Site Management SPG.

- Depopulation Phase
  - If a positive HPAI test is confirmed, all birds on the premises (whether or not they are infected with the virus) must be euthanized. This process is known as depopulation. Activities associated with depopulation occur in the Depopulation Phase of response.
  - When the SEOC is activated, the Depopulation Phase is supported by the Depopulation SPG.

- Disposal Phase
  - Once all birds have been depopulated at infected premises, the carcasses and all hazardous/infected waste will be collected and disposed of, either by on-site composting or by being packaged and transported to approved solid waste incinerators or other approved disposal facilities. These steps are all done in accordance with DAR and DEP, following USDA best practices. All activities associated with disposal of infected waste and materials occur during the Disposal Phase.
  - When the SEOC is activated, the Disposal Phase is supported by the Waste Management SPG.
- Decontamination Phase
  - Decontamination of equipment and personnel involved in site management, depopulation and disposal activities must occur on an ongoing basis to ensure that vehicles and other equipment, and response personnel, do not spread the virus from the infected premises. Gross decontamination of infected premises must occur once infected birds and waste are removed from the infected premises to ensure the virus is eradicated from the premises.
  - When the SEOC is activated, the Decontamination Phase is supported by the Site Management SPG.
- Site Clearance/ Repopulation Phase
  - Once all infectious waste has been removed from an infected premise, and the infected premise has been decontaminated, the premises will be monitored and tested to ensure eradication of the virus. Once the premises is determined to no longer have HPAI present, it will be issued a certificate of clearance is issued to the farm, and repopulation can begin if so desired.
  - When the SEOC is activated, the Site Clearance Phase is supported by the Site Management SPG.

For each site, the implementation of all phases can take as long as 90 days, however swift coordinated actions are critical in the Detection and Depopulation Phases. A more detailed discussion of roles and responsibilities for agencies with roles in each phase is provided in the following section.

11.2. Operational Roles and Responsibilities by Phase

▪ Detection Phase

i. Surveillance

- Wild Birds

- DFW, in coordination with USDA, will conduct routine, random sampling of wild waterfowl along the coast and in the Merrimack River valley.
- DFW will also respond to reports of sick or dead wild fowl and will take samples from sick birds or birds that may have died of disease.
- MEP may receive reports of sick or dead wildfowl, especially geese and ducks during hunting season. Any such reports will be shared with DFW, and, as necessary, specimens provided to DFW for sampling.
- Mass 211 may receive reports from the public of sick or dead wildfowl. These reports will be forwarded to MEMA Headquarters as outlined in this plan, and MEMA will ensure that the reports are provided to DFW.
- A finding of HPAI in a wild bird in Massachusetts will indicate that the virus is present in the Commonwealth. It does not by itself automatically trigger response actions.

▪ <u>Domestic Poultry</u>

- DAR will conduct routine sampling of domestic poultry flocks on a regular basis.
- Birds in domestic, commercial flocks (and other flocks upon producer request) are sampled each time they are moved within the state, with the exception of transport to slaughter.
  - 10% of these samples are subsequently tested for Avian Influenza (AI).
  - Many birds are exposed to Low Pathogenic Avian Influenza (LPAI) at least once during the course of their lives, so a positive serology result for AI does not necessarily indicate the presence of HPAI, but will trigger follow-up testing to confirm the presence of HPAI virus in the flock.
- Mass 211 may receive reports from the public of sick or dead domestic fowl. These reports will be forwarded to MEMA Headquarters as outlined in this plan, and MEMA will ensure that the reports are provided to DAR.

ii. Testing

▪ <u>Wild Birds</u>

- Routine surveillance samples taken from wild birds by DFW and USDA, and samples taken by DFW from reported sick or deceased birds, are submitted for laboratory testing to the National Wildlife Health Center (NHWC) in Wisconsin. All samples are tested for HPAI as well as other diseases common in waterfowl such as LPAI, Eastern Equine Encephalitis (EEE), and West Nile Virus.
- When MEP retrieves deceased wild birds, they will turn over the specimen to DFW, who will sample them and arrange for samples to be tested at the NWHC.
- Turnaround time for test results from NWHC is approximately 48 hours.

- A finding of HPAI in a wild bird in Massachusetts will indicate that the virus is present in the Commonwealth. It does not by itself automatically trigger response actions.

- Domestic Poultry
  - When DAR responds to reports of sick or dead birds, samples from birds for PCR (Polymerase Chain Reaction) testing will be taken and sent to the University of Connecticut and/or to the National Veterinary Services Laboratory (NVSL) in Iowa. Routine serology test samples, when taken, are sent to the University of Connecticut or the University of New Hampshire.
  - Turnaround time for PCR testing is approximately 24 hours for samples sent to the University of Connecticut, and 24-48 hours for samples sent to the NVSL.
  - Only the first positive case in the state, known as the index case, must be confirmed by the NVSL before depopulation activities can begin. Subsequent cases need only be tested using PCR by a laboratory in the National Animal Health Laboratory Network, such as the University of Connecticut.

iii. Notification

1. Notification of Routine Surveillance Activities
   - In the absence of a positive finding of HPAI in Massachusetts, both DAR and DFW will send out regular email notifications for situational awareness purposes to the UCG and the Avian Influenza Working Group.
     - These notifications will contain information regarding **ongoing** testing and surveillance of wild and domestic birds.
     - MEMA will be responsible for ensuring that routine information will be disseminated as to the Avian Influenza Working Group. As appropriate, MEMA may also share the situational awareness statements with the Emergency Support Function Team, Executive Branch agencies, and the Office of the Governor.
2. Notification of Out-of-Ordinary Events
   - In the case of out-of-ordinary events, such as reports of large numbers of sick or dead birds, or a confirmed finding of HPAI outside Massachusetts but in the Atlantic flyway, DAR or DFW will notify the Avian Influenza Working Group and the UCG.
   - Notification may be made to the UCG and Avian influenza Working Group via email and/or HHAN by contacting MEMA's 24/7 Communications Center.
   - This notification would be for situational awareness purposes only and would not automatically trigger any follow-up action by the UCG. (The UCG will decide whether a conference call or other action is required.)

- If calls are received by Mass211 from the public reporting sick or dead birds, either domestic or wild, the information will be passed on to MEMA Headquarters.
    - If the SEOC is not activated, the information will be passed on to MEMA's 24/7 Communications Center for further action and distribution.
    - If the SEOC is activated, the information will be sent to the SEOC to be shared with the UCG.

3. <u>Notification of Suspected/Confirmed Cases of HPAI in Wild Birds</u>

- In the case of a confirmed or suspected case of HPAI in a wild bird or a case which in DFW's opinion is that testing of a sick or dead wild bird will likely result in a positive finding of HPAI
    - DFW will:
        - Notify MEMA's 24/7 Communications Center in addition to its usual notification protocols.
    - MEMA will:
        - Set up a conference call bridge, notify the UCG via HHAN message, and convene a conference call of the UCG so that its members can be briefed on the situation and discuss potential follow-up actions.
        - The UCG will determine whether to activate the SEOC.
    - The UCG will:
        - Determine whether to convene one or more conference calls with municipal officials in the city/town where the wild bird was found for the purpose of briefing the municipal officials. Municipal officials on the call may include:
            - Chief Municipal Officer (Mayor, Selectmen, City or Town Manager)
            - Emergency Management Director
            - Fire Chief
            - Police Chief
            - Local Board of Health
            - Animal Inspector
            - Animal Control Officer
        - If the UCG decides that a call with municipal officials will be held, MEMA will be responsible for providing the conference call bridge and managing the logistics of the conference call.

4. <u>Notification of Suspected/Confirmed Cases of HPAI in Domestic Birds</u>

- In the case of a confirmed or suspect case of HPAI in a domestic bird:
  - DAR will:
    - Notify MEMA's 24/7 Communications Center in addition to its usual notification protocols.
  - MEMA will:
    - Set up a conference call bridge, notify the UCG via HHAN message, and convene a conference call of the UCG so that the members can be briefed on the situation and discuss potential follow-up actions, including an activation of the SEOC to support response operations.
  - The UCG will:
    - Conduct a conference call with municipal officials in the affected community to brief them on anticipated state actions and answer questions. The following municipal officials may be invited to participate in the call:
      - Chief Municipal Officer (Mayor, Selectmen, City or Town Manager)
      - Emergency Management Director
      - Fire Chief
      - Police Chief
      - Local Board of Health
      - Animal Inspector
    - Conduct a conference call with municipal officials in communities within the 10km (6.2 mile) zone. The following municipal officials may be invited to participate in the call:
      - Chief Municipal Officer (Mayor, Selectmen, City or Town Manager)
      - Emergency Management Director
      - Fire Chief
      - Police Chief
      - Local Board of Health
      - Animal Inspector
    - MEMA is responsible for providing the conference call bridge and managing the logistics of the call.

▪ Site Assessment Phase

The Site Assessment Phase consists of the following operational actions:

- Initial Response Actions
  - Quarantine Orders
  - Establishment of 10km (6.2 mile) Control Zone
  - Implementation of Control Zone Restrictions
  - Implementation of Biosecurity Measures
  - Risk Assessments

i. Initial Response Actions to a Confirmed Case of HPAI

1. <u>Issuance of Quarantine Order</u>
   - In the case of a confirmed positive finding of HPAI in a *domestic* bird, or in a or in a suspect case where DAR has a strong belief that test results will be positive for HPAI in a domestic bird, a municipal animal inspector or DAR representative will immediately issue a quarantine order for birds for the infected premises.
     - At a minimum, the quarantine order will prohibit the movement of birds and bird products onto or off of the infected premises.
     - As circumstances warrant, DAR may modify a quarantine order. For example, restrictions on the movement of people, equipment, other animals or animal products may be added.
   - In the case of a confirmed positive finding of HPAI in a *captive, permitted wild bird species*, or in a suspect case where DAR or DFW has a strong belief that test results will be positive for HPAI in a captive permitted wild bird, a DFW representative (or municipal animal inspector or DAR representative as delegated under a memorandum of understanding between DFW and DAR) will immediately issue a quarantine order for captive, permitted wild birds on the premises.
     - At a minimum, the quarantine order will prohibit the movement of captive, permitted wild birds and bird products onto or off of the infected premises.
     - As circumstances warrant, DAR may modify a quarantine order. For example, restrictions on the movement of people, equipment, other domestic animals or domestic animal products may be added.
     - Decisions regarding the scope of quarantine will be made by DAR on a case-by-case basis depending on site management practices.
   - In the case of a confirmed positive finding of HPAI in a *wild* bird, DFW will promptly notify DAR. DAR will:

- Provide information on the detection of HPAI to the owners/operators of premises with domestic poultry within a 10km (6.2 mile) radius of the location where the wild bird was found.
- Request that the owners/operators of premises with domestic poultry within a 10km (6.2 mile) radius of the positive HPAI location institute more stringent Biosecurity procedures on their premises.
- Consider conducting increased surveillance of the birds on premises with domestic poultry within a 10km (6.2 mile) radius of the positive HPAI location.

2. <u>Establishment of a 10 Kilometer (6.2 Mile) Control Zone</u>

- Once a premise with a positive HPAI domestic bird is identified, a Control Zone with a radius of 10km (6.2 mile) from the infected premises will be established.
- DAR will:
  - Identify all premises with domestic flocks within the Control Zone.
    - Identify dairy farms within the Control Zone to determine if dairy farms also have domestic poultry on the premises.
  - Once all domestic poultry premises are identified, classify each as one of the following:
    - **Infected Premises**: A premises on which a bird has tested positive for HPAI.
    - **Contact Premises**: Premises within the Control Zone that have had contact with people, equipment, birds and/or bird products from an Infected Premises within 30 days preceding the positive HPAI test on the Infected Premises. Contact Premises may also be identified outside of the Control Zone.
    - **At-Risk Premises**: Premises within the Control Zone that have domestic birds that are neither infected nor have had contact with people, equipment, birds or bird products from an Infected Premises. Birds on At-Risk Premises have neither tested positive for HPAI nor have been in contact with people, equipment, birds or bird products from an Infected Premises.
- The GIS Unit within the SEOC, working with the GIS representatives from the Avian Influenza Working Group, will provide map products showing the Control Zone and Infected Premises, Contact Premises, and At-Risk Premises, and when appropriate, dairy farms, within the Control Zone.
- Where needed and possible, MEP will assign law enforcement personnel to patrol the Control Zones and assist DAR in the enforcement of quarantine orders

and Biosecurity measures. MEP may request that MSP support patrols of the Control Zone or assign dedicated personnel to assist MEP with enforcement.

ii. Implementation of Movement Restrictions for Domestic Poultry Premises Within the Control Zone

- Within the Control Zone, movement of poultry and poultry products will be restricted.
- DAR may issue permits on a "per haul" basis to temporarily waive movement restrictions for a certain premises. Permit requests must contain a description of the product being transported, its place of origin, and proof of a negative test for HPAI within 48 hours of being transported. Premises and haulers subject to the restriction must meet Biosecurity standards set by DAR to be eligible for a permit to transport agricultural products on and off the premises and inside/outside of 10km (6.2 mile) control zone.
- Product originating from the Control Zone and being moved out-of-state must be accepted by the receiving state as well as all states that the product passes through before reaching its destination. The shipper is responsible for coordinating these approvals.
- Within the Control Zone, commercial sales of poultry products from retail establishments such as convenience stores and grocery stores will not be restricted provided the retail establishment is not on an Infected, At-Risk, or Contact Premises.
- Farm stands and Community Supported Agriculture (CSA) deliveries/activities within a control zone may be subject to movement, Biosecurity and permitting restrictions depending upon their proximity to or interaction with Infected, At-Risk, or Contact Premises.
- DAR will implement testing protocols on products and the premises per the USDA Secure Food Supply Plans to facilitate movement of agricultural products within and in and out of a Control Zone.
- If movement of people, equipment, or products occurs between Infected Premises and At-Risk Premises (thereby turning At-Risk Premises into Contact Premises), then further restrictions will be ordered and enforced.
- MSP and local law enforcement may be requested to conduct patrols in the Control Zone and report any movement or activity that is inconsistent with DAR guidance or orders.
- For dairy farms with domestic poultry present, if birds are not removed/ isolated from milk production areas, then milk transport may be affected and farms may not be able to move milk off farm.

iii. Implementation of Biosecurity and Decontamination Requirements for Poultry Premises Within the Control Zone

- Within the Control Zone, all (Infected, Contact and At-Risk) premises identified as having poultry will be required to implement Biosecurity measures to mitigate the spread of HPAI.
- DAR, in coordination with DEP and DFS, will determine necessary Biosecurity, decontamination, and site control measures.
- DAR, in coordination with the Joint Information Center and/or the UCG, will develop messaging to provide to all premises within 10km (6.2 mile) Control Zone explaining Biosecurity measures.
- DAR, in coordination with DEP and DPH, will collect names and information of those workers and personnel who came into contact with infected birds, to pass on to DPH. DPH can then interview and discuss self-monitoring recommendations, if warranted.
- For **Infected Premises:**
  - DAR will:
    - Prohibit the movement of poultry/poultry products on and off such premises (unless a permit waiving movement restrictions is issued).
    - Prohibit the movement of other animals/animal products on and off such premises until appropriate Biosecurity measures are implemented and deemed satisfactory by DAR (no poultry in contact with other animals, etc.)
    - With the support of DEP, ensure compliance with Biosecurity measures for onsite use and/or movement of feed, vehicles, equipment, personnel, etc. by providing personnel to be onsite through site management, depopulation and waste management phases of operation.
    - With the support of DEP, ensure compliance with Biosecurity measures for movement of operational personnel, equipment and vehicles entering or exiting the premises.
  - DFS will:
    - Implement decontamination protocols and processes for people, equipment and vehicles moving onto and departing from the Infected Premises.
- For **Contact Premises**, DAR will:
  - Increase surveillance testing of contact premises.
  - Continue to monitor flocks on the premises if flock owners seek to move agricultural products off of the farm.
  - Prohibit the movement of poultry/poultry products on and off such premises (unless a permit waiving movement restrictions is issued).

- Prohibit the movement of other animals/animal products on and off such premises until appropriate Biosecurity measures are implemented and deemed satisfactory by DAR (no poultry in contact with other animals, etc.)
- Ensure that Biosecurity measures for onsite use and/or movement of feed, vehicles, equipment, personnel, etc. are implemented.
- Allow residents to go about their normal daily activities (including going to work/school, recreational activities, etc.) but request they follow appropriate Biosecurity measures, including:
  - Isolating poultry birds from visitors and other birds, especially wild birds;
  - Cleaning shoes, clothing, tools, and equipment after feeding or handling birds;
  - Not sharing tools and equipment with neighbors, especially those who have poultry on their own premises;
  - Watching for early signs of illness to prevent the spread of disease;
  - Immediately reporting to DAR or local animal inspector/ animal control officer unusual signs of disease or unexpected deaths.

- For **At-Risk Premises**, DAR will:
  - Prohibit the movement of poultry/poultry products on and off such premises (unless a permit waiving movement restrictions is issued).
  - Request that the owners/operators of the premises implement appropriate Biosecurity measures.

iv. Risk Assessments

- DAR will conduct risk assessments at poultry premises within Control Zone to determine the level of risk.
- DAR may request assistance from local animal control officers and inspectors to conduct site assessments.

1. <u>Personal Protective Equipment (PPE) Requirements</u>
   - Staff conducting risk assessments should utilize the following PPE precautions:
     - <u>Infected Premises staff</u>: Disposable coveralls, gloves, boot covers, dust mask, goggles.
     - <u>Sampling teams</u>: Disposable coveralls, gloves, boot covers, goggles, N95 half-face masks. When sampling teams leave, PPE will be doffed, bagged, and left on-site until results of tests come back. If tests come back negative, PPE may be disposed of as ordinary solid waste; otherwise it will remain onsite until disposed of by DEP contractors.

- Sample transport teams: Disposable gloves

2. Infected Premises

- DAR, DEP and/or DFS will conduct an on-site assessment of the premises and surrounding areas to:
  - Identify areas of contamination and designate "hot zones".
  - Determine placement of response assets.
  - Identify roads that may need to be closed to facilitate operations and communicate this information to local law enforcement and/or MSP.
  - Assess other potential impacts on the surrounding municipality.
- DAR and DEP, in coordination with the premises owner/operator, will determine the depopulation and waste disposal methods that will be employed at the premises.
- DAR will inventory and appraise stock using USDA's Appraisal and Indemnity Procedures to ensure proper risk assessment of the site.
- DAR will ensure the Infected Premises has a Premises Identification Number (PIN), or assign one if needed.
- DAR will ensure that a valid flock plan is in place, or develop such a plan with the owner of the Infected Premise as needed. A flock plan is site specific to an individual premise, and catalogues all operational needs related to an infection and its eradication on that premises.
- The flock plan will also be used to guide depopulation and waste management activities on infected premises.

3. Contact Premises

- DAR will conduct a site assessment to determine whether HPAI is present on the premises.
- DAR will ensure Contact Premises has a Premises Identification Number (PIN), or assign one if needed.
- DAR will provide guidance on Biosecurity measures to owners of the premises.
- DAR will conduct flock monitoring if movement of agricultural products is desired by flock owners.

4. At-Risk Premises

- DAR and/or USDA may conduct ongoing surveillance at At-Risk Premises. Priority for ongoing surveillance will be based on the following risk factors:
  - Need to move poultry products (commerce)
  - Presence of sick birds

- Proximity to bodies of water
- Presence of domestic waterfowl
- History of selling and/or showing birds
- Contact with infected premises

5. Dairy Farms

- DAR will assess dairy farms to determine the locations of birds and whether they pose any risk to onsite dairy animals.

Depopulation Phase

i. Personal Protective Equipment (PPE) Requirements

- Staff conducting depopulation activities should utilize the following PPE precautions
  - Depopulation teams: Disposable coveralls, heavy-duty gloves, boot covers, full-face respirators

ii. Depopulation Activities

- Once an Infected Premises is identified, areas of contamination ("hot zones") are defined, and a depopulation method is determined (in conjunction with DAR and the premises owner/operator), DEP will:
  - Assign a contractor to carry out depopulation operations at the site. This contractor will be overseen by DEP personnel or by a separate oversight contractor if DEP personnel are unavailable.
  - Contractors will be required to commence depopulation operations within 24 hours of notification.

1. Large Poultry Premises

   - Depopulation on large poultry premises may be carried out using high- or medium-expansion foam or carbon dioxide- assisted euthanasia, or other appropriate methods as approved by DAR.
     - DFS will :
       - Ensure that DEP has an up-to-date list of local fire departments which have equipment and/or supplies to assist with high- or medium-expansion foam application.
     - DEP will:
       - Make outreach to identified local fire departments with the capacity for applying medium- and high-expansion foam to determine if equipment can be used to support depopulation activities.

        - Obtain medium- and/or high-expansion foam application equipment and supplies from local fire departments as needed.
        - Supply the foam and will coordinate with local fire departments to acquire resources.
        - Supply other materials as needed to assist with the depopulation process.
    - DEP contractors, assisted by owners and/or operators of the premises where available, will:
        - Be responsible for carrying out site preparations and depopulation operations, including:
            - Preparation of poultry coop(s) or housing unit(s).
            - Herding birds into coop(s) or housing unit(s).
            - Deployment of foam (or other methodology when required).
            - Minimizing exposure of fire department equipment and other deployed assets to potentially contaminated environments.

2. <u>Medium and Small Poultry Premises Facilities (Including Backyard Flocks)</u>
    - Depopulation operations of medium and small poultry premises and backyard flocks will be carried out by carbon dioxide- assisted euthanasia or other appropriate methods as approved by DAR.
    - DEP will:
        - Notify local officials and the site owner of the date and time operations will begin.
        - Supply carbon dioxide and other materials as needed to assist with the depopulation process.
    - DEP Contractors will:
        - Gather birds into a designated area
        - Depopulate the flock via carbon dioxide-assisted euthanasia or other approved methods.

- **Disposal Phase**
    - Once depopulation activities are complete, activities to dispose of carcasses and materials will commence.
    - All waste from depopulation and decontamination activities is considered infectious waste.

- Disposal activities include two methodologies: onsite composting, and transportation offsite.

i. Personal Protective Equipment (PPE) Requirements:

- Staff conducting disposal activities should utilize the following PPE precautions:
- Compost pile construction teams: Disposable coveralls, heavy-duty gloves, boot covers, full-face respirators.
- Compost pile monitoring teams: Disposable coveralls, heavy-duty gloves, boot covers, safety glasses, N95 masks.

ii. Onsite Composting

- Onsite composting will be conducted primarily at large poultry premises.
- Composting will preferably be conducted in the coop, house or covered building where the flock was depopulated.
- Composing will occur for a period of at least 28 days (two 14-day cycles).
- DEP will:
  - Retain a composting contractor to construct and monitor the composting pile.
  - As needed, coordinate with DCR or private vendors to secure delivery of additional materials (such as woodpiles) to construct the compost pile.
- The DEP contractor will:
  - Construct composting pile(s).
    - The base and cap of the compost pile will be composed of wood chips.
    - The body of the pile will be composed of bird carcasses, foam, feed, bedding, partial compost, manure, and sawmill shavings, depending on material availability.
    - Where possible the contractor will use materials found on-site to construct the pile.
    - Monitor composting pile(s) on a regular basis to ensure temperatures within the pile are adequate to kill the HPAI virus.
    - Be overseen by DEP personnel or by a separate oversight contractor if DEP personnel are unavailable.
- DCR will:
  - Provide composting materials (such as woodchips) as available to support the construction of the compost pile.

iii. Transport of Waste

- The preferred method of waste disposal from medium and small facilities is transport of waste offsite to an appropriate solid waste facility.
- The preferred solid waste facility is an incinerator.
  - DEP will be required to issue waivers to incineration facilities to allow for burning of infectious waste.
  - DPH will be required to permit the transport of infectious waste.
- Once depopulation is complete, bird carcasses, bedding, feed, and other waste materials will be loaded into fiber drums or cardboard boxes.
- Containers will undergo exterior decontamination and then will be loaded onto a truck for transport to the solid waste disposal facility for disposal.
- DEP will:
  - Designate an approved solid waste incinerator to receive and destroy the waste from the site and will inform them ahead of time (see Figure 6 for locations of approved solid waste disposal facilities).
  - Provide waivers for commercial incinerators to burn infectious waste in cooperation with MDPH.
  - Where necessary, identify ash or solid waste landfills as alternative facilities to accept HPAI infected materials.
  - Coordinate with MSP to identify and designate transportation routes.
- A DEP oversight contractor will:
  - Be present at the incinerator or other receiving facility to verify that all containers are securely sealed prior to incineration.
- MSP will:
  - Coordinate with DEP to identify and designate transportation routes.

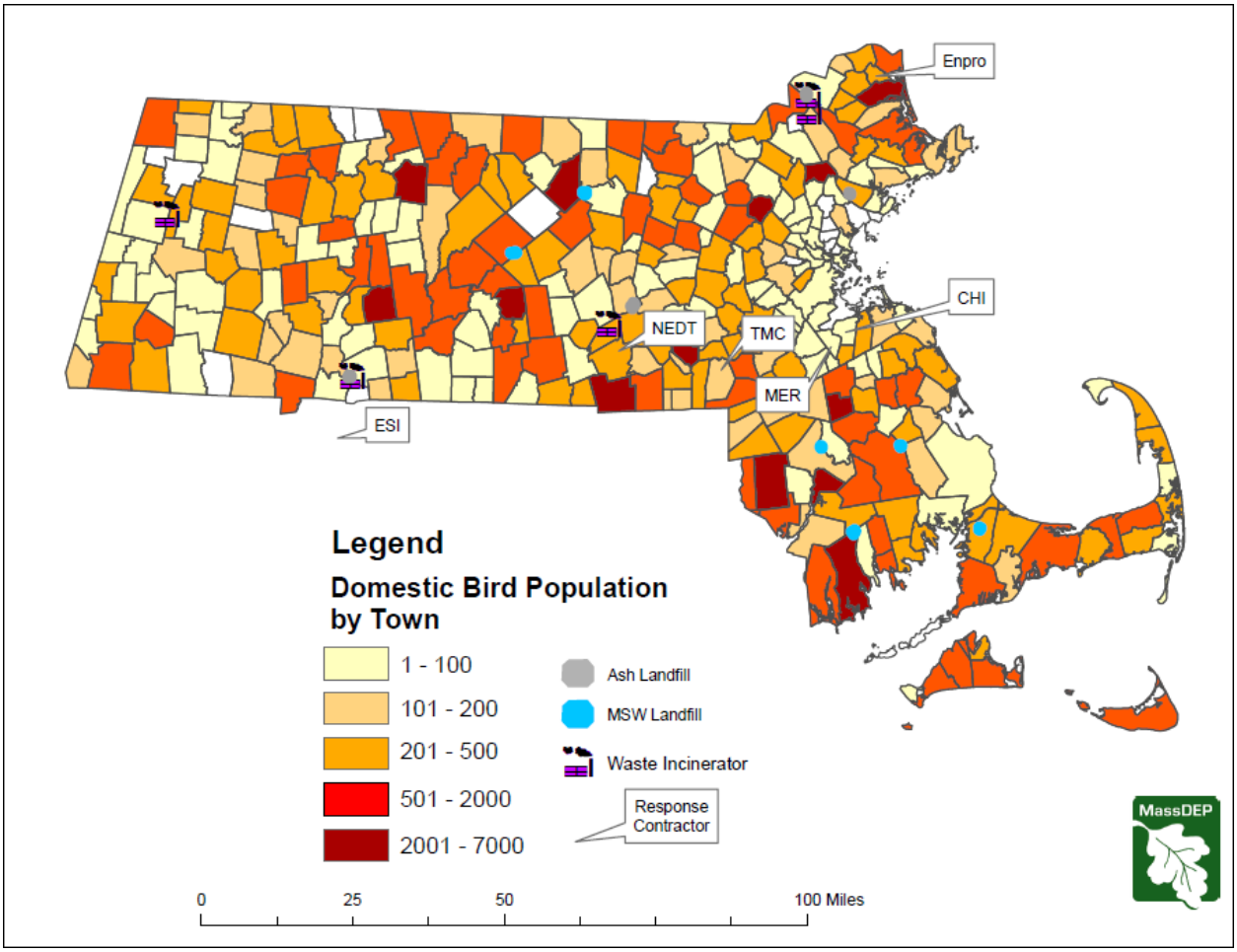

Figure 6: Proximity of Approved Solid Waste Disposal Facilities to Poultry Premises

- ## Decontamination Phase
  - Decontamination activities will take place on all Infected Premises to mitigate the spread of the virus.
  - All personnel, vehicles and equipment entering or exiting from the defined "hot zone" will be required to undergo decontamination.
  - DFS is responsible for:
    - Establishing an area for decontamination activities.
    - Providing resources to conduct decontamination activities.
    - Conducting decontamination activities until depopulation has been completed.
  - DEP is responsible for:
    - Post-depopulation decontamination activities.

- Providing resources to conduct post-depopulation decontamination activities.
- Decontamination of its own vehicles.

i. Personal Protective Equipment (PPE) Requirements

- Staff conducting disposal activities should utilize the following PPE precautions
- Decontamination teams: Disposable coveralls, heavy-duty gloves, boot covers, full-face respirators.

ii. Decontamination of Vehicles, Equipment and Personnel on an Infected Premises

- Prior to entering the Infected Premises, vehicles should be cleaned to remove caked mud, dirt, etc. to allow for more efficient decontamination and mitigate spread of the virus.
- Vehicle(s) that need to be removed from the defined "hot zone" on an Infected Premises must be decontaminated in accordance with approved decontamination protocols. (Approved decontamination procedures are attached as references to this plan.)
- Response vehicle(s) that are working within the defined "hot zone" on an Infected Premises must be decontaminated each time the vehicle exits the "hot zone" in accordance with approved decontamination protocols. (Approved decontamination procedures are attached as references to this plan.)
- Drivers will not leave the cab of the vehicle while the vehicle is undergoing onsite decontamination to prevent the need to decontaminate the interior of the vehicle.
- Once a vehicle that is not supporting response activities has been decontaminated and moved off the premises, that vehicle will not be allowed to reenter the hot zone until the hot zone has been appropriately decontaminated.

iii. Post-Depopulation Decontamination

- All areas in the defined "hot zone" must be decontaminated using gross decontamination protocols.
- All equipment used to support depopulation – including equipment from local fire departments for foam application – must be decontaminated prior to be released from the premises.
- If composting has or is occurring, all equipment used to construct the composting pile must be decontaminated.
  - If the compost pile is built in-house, the house or covered building cannot be decontaminated until 21 days have elapsed and the compost has been removed from the building.

    - If the compost pile is located elsewhere on the site, the house may be decontaminated immediately following the removal of all bird carcasses, bedding, feed, and waste.
- DEP contractors are responsible for:
    - Establishing a decontamination corridor and a waste control area outside of the hot zone on the premises prior to entry.
    - Conducting gross decontamination of the area where depopulation operations took place.
- DEP is responsible for:
    - Overseeing contractors and contractor activities.
    - Providing supplies to support post-depopulation decontamination activities.
- DAR will:
    - Provide instructions to producers regarding cleaning, disinfection, and decontamination of their equipment and facilities. This will be determined on a case-by-case basis.

Site Clearance Phase

- Once an Infected Premises has had depopulation, disposal and decontamination activities completed, DAR must assess and certify the premises as being free of HPAI before the quarantine order can be lifted.
- Premises with backyard flocks will only be retested if the premises owner intends to repopulate its flock. If flocks will not be restocked, post-depopulation testing will not be conducted.
- DAR will:
    - Re-test the premises using USDA Guidelines regarding composting and cleaning and decontamination of the premises.
    - If the virus is determine to still be present, decontamination procedures will be repeated.
    - If the test results are negative for HPAI, issue a certificate of clearance, and lift the quarantine order.
    - Providing instructions to producers regarding possible repopulation activities will be coordinated by DAR and are determined on a case by case basis

- **Repopulation Phase**
  - Premises with backyard flocks will only be retested if the premises owner intends to repopulate its flock. If flocks will not be restocked, post-depopulation testing will not be conducted.
  - DAR must approve the repopulation of each infected premises once the quarantine has been lifted. This permission is dependent on an assessment of the current outbreak status in the control zone and within the state, and a risk assessment to outline the potential for re-infection on the premises seeking to repopulate. Both the assessment criteria and the repopulation process are subject to the most current USDA guidelines and policies.
  - Re-infected premises that do not have DAR clearance for repopulation and/or do not follow USDA guidance for the process will not be eligible for indemnification through the USDA.

12.0 Financial Considerations

The costs associated with an outbreak of HPAI may be extremely high and have significant impacts on agency budgets. Additionally, agencies may be required to seek reimbursement of costs through USDA or other federal programs, or to seek supplemental funding from the state. As such, documentation and record keeping of all preparedness and response costs is critically important.

12.1 Response Costs

In the occurrence of widespread or multiple outbreaks of Highly Pathogen Avian Influenza, the response will require many agencies to coordinate and may include many locations of concurrent operations. Each agency involved in the response, or that incurs expenses related to the response of an outbreak of HPAI, will be responsible for internally documenting their costs. Costs that should be documented include, but are not limited to:

- Straight time labor versus overtime costs
- Contractor costs
- Separation of costs incurred based on the county in which the work was completed (this separation is necessary for potential reimbursement under various federal programs)
- Capital purchases
- Consumable equipment
- Rental agreements
- Costs associated with just in time (JIT) training
- Costs associated with requesting and receiving National Veterinary Stockpile (NVS) Resources

13.0 References

The following resources are considered reference material to build upon the Multi Agency Coordination and Operations Plan:

- Mass DAR Infectious Disease Plan
- Mass DAR LPAI Response Plan
- Mass DEP Compost Plan
- Mass DEP HPAI Health and Safety Plan (HASP)
- Mass DEP Operations: Large Farm/ Compost Flow Chart
- Mass DEP Operations: Small Farm/ CO2 Flow Chart
- HPAI Decontamination Plan
- Mass DPH MAESF 08 ConOps for HPAI
- USDA HPAI Biosecurity Checklist
- USDA Financing the Response: State/Tribal Information Fact Sheet
- USDA Fall HPAI Preparedness and Response Plan 2015
- USDA Appraisal and Indemnity Procedures 2014-2015
- USDA Ready Reference Guide- Overview of Zones 2014-2015
- USDA Control Area Release Guidance
- USDA Timeline, Eligibility, and Approval for Restocking Guidance
- USDA Post C&D Environmental Sampling Guidance
- Commonwealth of MA CEMP

14.0 Glossary of Specialized Terms

- **Animal Product**: Blood or any of its components, bones, bristles, feathers, flesh, offal, skins, and any by-product containing any of those components that originated from an animal or bird.

- **Appraisal**: The assignment of a value for a specific animal based on all of its attributes (e.g., blood lines, age, proofs, body condition, conformation, and health) and the current value of similar animals.

- **Assistant Area District Director** (AADD): The lead federal veterinarian for the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS) agency in a specified area. Nationwide, AADDs are assigned to areas that encompass one or more states. They administer the federal veterinary programs within their assigned areas, in conjunction with the State Veterinarian's Office.

- **At-Risk Premises**: Premises with susceptible animals, but none have clinical signs compatible with the pathogen. Premises objectively demonstrate that it is not an Infected Premises, Contact Premises, or Suspect Premises. At-Risk Premises seek to move susceptible animals or products within the Control Area by permit. Only At-Risk Premises are eligible to become Monitored Premises.

- **Biosecurity**: A series of management practices designed to prevent the introduction of disease agents onto or prevents the spread from an animal production facility.

- **Buffer Zone**: Zone that immediately surrounds an Infected Zone or a Contact Premises.

- **Cleaning and Disinfection (C&D)**: Practices involving a combination of physical and chemical processes that kill or remove pathogenic microorganisms – a combination that is vital for the eradication of disease.

- **Confirmed positive diagnosis**: The State Veterinarian's determination that an animal has contracted a high risk infectious animal disease, based on a definitive laboratory test, clinical symptoms, epidemiological information indicative of the disease of interest, and, when available, the judgment of the United States Department of Agriculture (USDA) Assistant Area District Director (AADD).

- **Contact Premises**: Premises with susceptible animals that may have been exposed to the pathogenic agent, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from Infected Premises.

- **Control Area**: Consists of an Infected Zone and Buffer Zone. Has individual premises quarantine for Infected Premises, Suspect Premises, and Contact Premises and movement restrictions for At-Risk Premises and Monitored Premises.

- **Depopulation**: A method by which large numbers of animals must be destroyed quickly and efficiently with as much consideration given to the welfare of the animals as practicable. Usually reserved for emergency disease situations for containment of disease.

- **Epidemiology**: The study of disease in populations and of factors that determine its occurrence.

- **Eradication**: Reduction of an infectious disease's prevalence in the global host population to zero.

- **Euthanasia:** Deliberate ending of an animal's life in a manner that causes minimal pain and distress.

- **Fomite**: An inanimate object or material on which disease-producing agents may be conveyed (e.g. feces, bedding, harness, clothes, and vehicle tires).

- **Foreign Animal Disease**: A terrestrial animal disease or pest, or an aquatic animal disease or pest, not known to exist in the United States or its territories.

- **Foreign Animal Disease Diagnostician**: A veterinarian who has received specialized training qualifying her or him to diagnose specific animal diseases using field analysis, laboratory test results, or a combination of the two.

- **Free Area**: Includes a Surveillance Zone, but extends beyond the Surveillance Zone. Area not included in any Control Area.

- **Free Premises**: Premises outside of a Control Area and not a Contact or Suspect Premises.

- **Hot Zone:** A zone, as identified by DAR, which contains infected birds and contaminated materials. This may include the entire farm or a portion of it.

- **Infected Premises**: Premises where a presumptive positive case or confirmed positive case exists based on laboratory results, compatible clinical signs, case definition, and international standards.

- **Infected Zone**: Zone that immediately surrounds an Infected Premises.

- **Monitored Premises**: Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. Only At-Risk Premises are eligible to become Monitored Premises. Monitored Premises meet a set of defined criteria in seeking to move susceptible animals or products out of the Control Area by permit.

- **Movement Controls**: Control and/or restrictions of the movement of people, animals, vehicles, and equipment so that Biosecurity can be maintained during a disease outbreak.

- **National Veterinary Stockpile**: Established by Homeland Security Presidential Directive 9 and operational in 2006. Able to deploy large quantities of veterinary resources anywhere in the continental U.S. within 24 hours.

- **Outbreak**: The occurrence of more cases of disease than expected in a given area, or among a specific group, over a particular time period; many epidemiologists use the terms outbreak and epidemic interchangeably.

- **Premises**: Includes a tract of land, and all of its buildings, as well as a separate farm or facility that is maintained by a single set of services and personnel.

- **Presumptive positive diagnosis**: The State Veterinarian's determination that an animal has contracted an infectious animal disease, based on a field analysis by a Foreign Animal Disease Diagnostician (FADD) and/or preliminary laboratory results and, when available, the judgment of the United States Department of Agriculture (USDA) Assistant Area District Director (AADD).

- **Quarantine**: To place animals in strict isolation to prevent the spread of disease.

- **Quarantine Zone**: The area extending immediately around herds presumed or confirmed to be infected with an infectious animal disease. The State Veterinarian determines the radius of this area in consultation with the United States Department of Agriculture (USDA) Assistant Area District Director (AADD). Within a quarantine zone, certain movement restrictions on vehicles, animals, and animal products will apply, as will cleaning and disinfection requirements. If movement restrictions on people are involved then concurrence from the Governor is required.

- **Surveillance:** Actions taken to determine the extent of an infectious disease outbreak, including identification of new cases.

- **Surveillance Zone**: Zone outside and along the border of a Control Area.

- **Suspect Premises**: Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with the pathogen. This is intended to be a short-term premises designation.

- **Tracing:** The process of determining all movements of infected or suspect animals back to disease incubation periods from the first known case and forward to the time of quarantine.

- **Vaccinated Premises**: Premises where emergency vaccination has been performed. This may be a secondary premises designation.

- **Vector**: An insect or any living carrier that transports an infectious agent from an infected individual to a susceptible individual or its food or immediate surroundings.

- **Veterinary Services Incident Management Teams (VS IMTs):** Consists of trained teams of the United States Department of Agriculture (USDA) animal industry specialists prepared to respond on short notice to agricultural and infectious disease incidents. The teams stand ready to assist the State Veterinarian with incident management and field operational command positions.

- **World Organization for Animal Health (OIE)**: The intergovernmental organization created by the International Agreement of 25 January 1924, signed by 28 countries. In April 2011, the OIE totaled 178 Member Countries. OIE standards are recognized by the World Trade Organization as reference international sanitary rules. The purpose of the OIE is to guarantee the transparency of animal disease status world-wide.

- **Zoonotic Disease/Zoonoses**: Diseases which are transmissible between animals and humans under natural conditions.

15.0 Acronyms

AADD	Assistant Area District Director
AAVLD	American Association of Veterinary Laboratory Diagnosticians
AHE	Animal health emergency
AHT	Animal health technician
AI	Avian influenza
APHIS	Animal and Plant Health Inspection Service
APIE	Air Pollution Incident Emergency
AVMA	American Veterinary Medical Association
CDC	Centers for Disease Control and Prevention
CFR	Code of Federal Regulations
CONOPS	Concept of Operations
DAR	Department of Agricultural Resources
DCR	Department of Conservation and Recreation
DEP	Department of Environmental Protection
DFS	Department of Fire Services
DFW	Department of Fisheries and Wildlife
DHS	Department of Homeland Security
DOD	Department of Defense
DOT	Department of Transportation
DPH	Department of Public Health
EMA	Emergency Management Agency
EMRS	Emergency Management Reporting Software
EMAC	Emergency Management Assistance Compact
EOPSS	Executive Office of Public Safety and Security
EPA	Environmental Protection Agency
ESF	Emergency Support Function
FAD	Foreign Animal Disease
FADDL	Foreign Animal Disease Diagnostic Laboratory (Plum Island, NY)
FDA	Food and Drug Administration

FNS	Food and Nutrition Service
FSIS	Food Safety and Inspection Service
GIS	Geographical Information Systems
HAZMAT	Hazardous Materials
HHAN	Health and Homeland Alert Network
HHS	Department of Health and Human Services
HPAI	Highly Pathogenic Avian Influenza
HSPD-9	Homeland Security Presidential Directive-9
IMT	Incident Management Team
JIC	Joint Information Center
LPAI	Low Pathogenic Avian Influenza
MANG	Massachusetts Army National Guard
MEMA	Massachusetts Emergency Management Agency
MEP	Massachusetts Environmental Police
MSP	Massachusetts State Police
NADC	National Animal Disease Center
NAHERC	National Animal Health Emergency Response Corps
NAHLN	National Animal Health Laboratory Network
NAHEMS	National Animal Health Emergency Management System
NAHRS	National Animal Health Reporting System
NAHSS	National Animal Health Surveillance System
NCAHEM	National Center for Animal Health Emergency Management
NIMS	National Incident Management System
NRF	National Response Framework
NVS	National Veterinary Stockpile
NVSL	National Veterinary Services Laboratories
NVSL-Ames	National Veterinary Services Laboratories-Ames, IA
NVSL-FADDL	National Veterinary Services Laboratories-Foreign Animal Disease Diagnostic Laboratory Plum Island, NY
NWHC	National Wildlife Health Center
PCR	Polymerase Chain Reaction

PIO	Public Information Officer
PPE	Personal Protective Equipment
PPQ	Plant Protection and Quarantine
SAS	Situational Awareness Statement
SEOC	State Emergency Operations Center
SNAP	Supplemental Nutrition Assistance Program
SOP	Standard Operating Procedure
UCG	Unified Command Group
USAHA	United States Animal Health Association
USDA	United States Department of Agriculture
VMO	Veterinary Medical Officer
VS	Veterinary Services
WS	Wildlife Services