[Insert Name of Your State/Organization]

**Avian Influenza Response Plan**

**\*Template\***

[Your State/Organization Logo]

[Insert Date of Last Revision]

*\*\* Note, this template is based on the North Carolina Response and Containment Plan for Highly Pathogenic and Low Pathogenic Avian Influenza developed by the North Carolina Department of Agriculture and Consumer Services in collaboration with Federal, State, Local, Industry, and Academic Partners and revised in late 2016 – early 2017.*

*\*\*Note, this plan is being significantly revised in 2017 based on interactions and discussions between the National Assembly and USDA regarding H5/H7 Low Pathogenic Avian Influenza Response.*

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52. **AI in Birds**

[Brief and up-to-date description of the current science and epidemiology of avian influenza viruses in bird populations.]

1. **AI in Humans**

[Brief and up-to-date description of the current science and epidemiology of avian influenza viruses in human populations.]

1. **AI Response Plan Development**

[Outline how the plan was developed, who was involved in the planning, and how often the plan will be reviewed and updated.]

1. **Diagnostic Resources**

[Include the name, address, phone number, and other contact information for the laboratories that you will use during an outbreak.]

[Include current information about the appropriate diagnostic tests to request.]

1. **Partner Responsibilities**

[Outline or list the people and groups that will work together during an avian influenza outbreak and list their expected duties; these may be internal or external to your organization.

Suggestions include: State Animal Health Officials, USDA APHIS, Commercial Poultry Industry, State Emergency Management, State Public Health, State Environmental, State Transportation, Academia, Special Avian Collections (Zoos, Wildlife/Waterfowl/Raptor Centers and Rehabilitators, Private Breeders, etc.)]

1. **Routine AI Surveillance**

[Describe the process of routine surveillance for avian influenza in your state.]

1. **General Response Strategy to HPAI or LPAI**

[Describe the general response strategy for avian influenza in your state. Suggestions are provided below.]

1. **General Response Strategy**
* Rapid diagnosis and reporting to appropriate stakeholders
* Swift imposition of state quarantine
* Controlled movement of known or suspected contaminated materials or birds
* Control of outbreak may include: pre-emptive culling, depopulation, vaccination, controlled marketing or combination of these measures
* Increased surveillance of surrounding flocks, commercial and non-commercial
1. **Response Strategy – Wild Bird H5/H7 AI positive**
* Confirmation of positive sample by testing at NVSL and NAHLN labs
* Response at the discretion of State Veterinarian—may include enhanced surveillance of commercial and non-commercial farms near the location of the wild bird at testing—dependent upon circumstances and location of wild bird
* Notify stakeholders in geographic proximity if deemed necessary by SV
1. **Response Strategy – Domestic Commercial Poultry H5/H7 AI positive**
* Company quarantine imposed when initial sample test is positive
* Enhanced biosecurity measures on farm
* State Quarantine imposed if positive sample in NAHLN lab
* Further confirmatory testing at NVSL
* If negative for H5 or H7, response ends, and quarantine revoked
* If samples presumptive positive for H5 or H7 AI, begin communication structure, epidemiology investigation and incident command structure for response
1. **Response Strategy – Backyard or Non-Commercial Poultry H5/H7 AI positive**
* Placing of State Quarantine when initial sample test is positive
* Further testing to confirm positive sample at NAHLN lab and NVSL
* Testing a minimum of 11 samples per house or group of birds using serology and antigen test (RRT-PCR) by NAHLN and NVSL, according to protocol determined by IC.
* If negative for H5 or H7, response ends and quarantine revoked
* If samples presumptive positive for H5 or H7 antigen, begin communication structure, epidemiology investigation and incident command structure for response
1. **Response Strategy – Special Avian Collections**

There are a number of different types of facilities and organizations housing avian species that may be considered Special Avian Collections (unique, valuable captive avian collections) and their bird populations may differ. To help owners/operators of these facilities understand best how to plan, prepare, and respond to an outbreak, it is suggested that owners work with the appropriate subject matter experts (veterinarians, state animal health officials, public health officials, and others) to formulate written disease prevention and response plans.

[Identify Special Avian Collections within the state and maintain an up-to-date physical address and contact list.]

Response areas to be considered by a SAC include:

* Recognition of disease
* Collecting and submitting samples
* Continuing operations
* Controlled movement
* Biosecurity protocols
* Surveillance activities
* Bird records

There are several options for how Special Avian Collections may fit into the Incident Command System organizational chart for an AI outbreak response. Three options are outlined below:

* + - Special Avian Collections Liaison
			* Special Avian Collections should identify one person to represent the facility. This person will communicate directly with the Incident Command Liaison Officer and is the person responsible for major decisions about the facility.
		- Special Avian Collections Public Information Officer
			* Special Avian Collections that are sufficiently large may designate a Public Information Officer that is separate from their Liaison, or this may be the same person. This person would communicate directly with the Incident Command Public Information Officer and potentially join other Public Information personnel to speak on behalf of their facility to the media at the Joint Information Center in a large or complex event.
		- Special Avian Collections Technical Specialist
			* The Incident Commander, Operations Section Chief, or Planning Section Chief may appoint a person with a strong working knowledge of or relationship with Special Avian Collections species or facilities in North Carolina to serve as a Technical Specialist. This position may assist with situational awareness and decision making activities related to avian influenza response activities at Special Avian Collections facilities in conjunction with the Liaison Officer.
1. **Response to Avian Influenza – Protocols**
	1. **LPAI subtypes – not H5 or H7**

[Outline your state/organization’s basic protocol to follow should a bird test positive for LPAI not H5/H7.]

* 1. **LPAI subtypes – H5 or H7**

[Outline your state/organization’s basic protocol to follow should a bird test positive for LPAI H5/H7.]

* 1. **HPAI any subtype**

[Outline your state/organization’s basic protocol to follow should a bird test positive for HPAI.]

* 1. **Vaccination**

[Outline your state/organization’s guidelines, policies, and/or protocols for using vaccination during an outbreak of AI.]

* 1. **Personal Protective Equipment Guidelines**

[Outline overall guidelines about using personal protective equipment during an AI outbreak. Consider providing the following NIOSH document “Protecting Poultry Workers from Avian Influenza” as an Appendix: <https://www.cdc.gov/niosh/docs/2008-128/pdfs/2008-128.pdf>]

* 1. **Antivirals**

[Outline guidelines, policies, and/or protocols addressing the use of anti-virals.]

* 1. **Recommended Personal Protective Equipment**

[Describe the type of PPE recommended for expected types of work during an AI response to include protection for body, feet, hands, eyes, and respiratory system.]

* 1. **Proper Removal of Personal Protective Equipment and Exit from Infected Premises**

[Include detailed procedures for proper donning and doffing of PPE as an Appendix.]

* 1. **Diagnosis Flow Chart**

[A flow chart or decision matrix is a useful tool to visualize the diagnostic process.]

* 1. **State Quarantine Process**

[Outline or reference processes and policies of your state quarantine.]

* 1. **Overview and Definitions of Containment Areas**

[Outline or reference USDA guidance document: <https://www.aphis.usda.gov/animal_health/emergency_management/downloads/hpai/hpai_zones.pdf>]

* 1. **Response Protocols by Containment Area**
1. **Surveillance**

[Describe how AI surveillance will be conducted in each response zone.]

1. **Permitting**

[Describe the permitting process including authority, application, and list animals and products requiring permits to move.]

1. **Bird Movement**

[Describe the requirements for moving birds during an AI outbreak according to response zones.]

1. **Movement of Poultry Products**

[Describe the requirements for moving poultry products during an AI outbreak according to response zones.]

* 1. **Biosecurity Requirements**

[Outline the biosecurity guidelines and protocols required during an AI outbreak for poultry and poultry product premises and traffic related to these operations. Consider potential differences in requirements between response zones, premises type, and traffic type (feed, live haul, disposal, litter management, visitors, non-poultry related inspections (fuel, water, electric).]

* 1. **Cleaning and Disinfection**

[Outline guidelines and protocols required during an AI outbreak for cleaning and disinfection (virus elimination) of personnel, equipment/vehicles, and premises. Consider potential differences in requirements between response zones, premises type, and traffic type (feed, live haul, disposal, litter management, visitors, non-poultry related inspections (fuel, water, electric).]

* 1. **Quarantine Release Procedures – Infected Premises**

[Outline guidelines and protocols required during an AI outbreak for quarantine release. Consider potential differences in requirements between response zones, premises type (Meat-type or Meat Breeder Poultry Farm, Table-Egg Layer Poultry Farm, Backyard Poultry Farm (non-commercial), Special Avian Collection.]

1. **Appraisal and Indemnification**

[Outline the current USDA APHIS guidelines and policies for appraisal and indemnification, link to appropriate documents, and/or include documents as appendices]

1. **Depopulation**

In an HPAI outbreak, the current goal is to depopulate infected flocks within 24 hours of a presumptive positive classification. Birds will be humanely depopulated using methods approved by the *American Veterinary Medical Association Guidelines on Euthanasia* (2013) <https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>

**Foam Depopulation**

USDA APHIS and the AVMA have approved water-based foam as a method of mass depopulation acceptable in emergent situations like AI outbreaks.

[Outline basics of Foam Depopulation and/or reference and include the AVMA/USDA Guideline for Water-Based Foam Depopulation as an Appendix]

[Your state/organization may also consider new humane depopulation methods resulting from future research or as described in the World Organization for Animal Health manual or by resolution from USDA APHIS, AVMA, US Animal Health Association or National Institute of Animal Agriculture, as approved by the State Veterinarian]

**Ventilation Shutdown (VSD)**

[Outline the most current policies and guidelines for Ventilation Shutdown and or reference and include the USDA APHIS VSD Evidence & Policy document] <https://www.aphis.usda.gov/animal_health/emergency_management/downloads/hpai/ventilationshutdownpolicy.pdf>

1. **Disposal**

A LPAI or HPAI disease event may generate large amounts of poultry carcasses and other contaminated, or potentially contaminated, materials including eggs, litter, manure, feed, etc. It is essential that these materials are managed rapidly and effectively to destroy the virus and prevent the opportunity for spread of disease. Disposal is to be performed in a manner that is protective of human and animal health and the environment - particularly soil, water and air resources.

Disposal activities are designed to achieve the goals of disease control, containment and eradication via approved chemical, thermal or biological treatment processes, or burial. Potential disposal strategies identified include:

* composting
* rendering
* incineration
* alkaline hydrolysis
* anaerobic digestion
* autoclaving
* lactic acid fermentation
* burial
* other novel, validated technologies as approved by the state veterinarian

[Provide an outline of each method that may be used by your state/organization during an outbreak.]

The choice of disposal method is dependent upon many site-specific criteria, e.g. animal housing design, on-farm resources, owner preference, animal type, geography, hydrology, proximity to disposal resources, etc. Municipal solid waste landfills that accept mortality may also be used. [Provide a list of approved municipal solid waste landfill sites in an Appendix].

1. **Epidemiological Investigation**

An epidemiologic investigation will be conducted during any AI incident within the bird population. The primary goals of these investigations will be to identify factors associated with transmission, identify any epidemiologically linked premises, and determine the extent of the control areas to provide all stakeholders with information to help mitigate the spread of the disease. Industry personnel and growers will be asked to assist in these investigations by completing assessment and questionnaire forms. Quarantines may be instituted on additional premises based on the results of epidemiological investigations at the SV's discretion.

[Consider including sample epidemiological investigation forms as an Appendix]