APHIS FOREIGN ANIMAL DISEASE FRAMEWORK
INCIDENT INFORMATION MANAGEMENT AND REPORTING

FAD PReP

Foreign Animal Disease Preparedness & Response Plan

USDA

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This Foreign Animal Disease Preparedness and Response Plan (FAD PReP) Manual, Incident Information Management and Reporting, provides a framework for use in dealing with an animal health emergency in the United States.

These FAD PReP Manuals are under ongoing review. This draft document was last updated **February 2018**. Please send questions or comments to:

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Executive Summary

Preparedness and response planning for foreign animal disease (FAD) incidents is crucial to protect public health, animal health, animal agriculture, the environment, the food supply, and the economy. This document, the *Animal and Plant Health Inspection Service (APHIS) Foreign Animal Disease Framework: Incident Information Management and Reporting (Manual 3-0),* is part of the U.S. Department of Agriculture (USDA) APHIS Foreign Animal Disease Preparedness and Response Plan (FAD PReP).

The goal of FAD PReP is to integrate, and synchronize preparedness and response capabilities as much as possible before an outbreak by providing goals, guidelines, strategies, and procedures that are clear, comprehensive, easily updated, and that comply with the National Incident Management System. As State, Federal, and Tribal government agencies and industry groups develop their own preparedness and response plans, it is critical they coordinate incident goals, guidelines, strategies, and procedures on a local, regional, and national basis.

This manual provides broad information about key information management systems and reporting protocols that would be used in an animal health incident; it covers

- information management systems used in an FAD incident;

- data standards, sharing, and training in information management prior to an incident;

- sources of data and types of reports that may be used to manage information during an outbreak; and

- post-incident information review and reporting.

Several APHIS documents complement this *APHIS Foreign Animal Disease Framework: Incident Information Management and Reporting*. Key documents include the following:

- *APHIS Foreign Animal Disease Framework: Roles and Coordination (FAD PReP Manual 1-0)*

- *APHIS Foreign Animal Disease Framework: Response Strategies (FAD PReP Manual 2-0)*

- *Permitted Movement (FAD PReP Manual 6-0)*

These documents, and the materials referenced within this document, are available at https://www.aphis.usda.gov/fadprep. Your comments on this document are invited; please send them to FAD.PReP.Comments@aphis.usda.gov to be considered in future revisions.

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Chapter 1
Introduction to Incident Information Management & Reporting for Foreign Animal Disease Incidents

Foreign animal diseases (FADs) are a threat to animal health, food security, the economy, and, potentially, public health and the environment. Because FAD incidents vary widely in size and scope, Veterinary Services (VS) requires information management (IM) and information technology (IT) systems that are flexible and scalable to different data requirements. IM systems used by the Animal and Plant Health Inspection Service (APHIS), VS, in FAD incidents facilitate the collection, management, reporting, analysis, and dissemination of critical emergency response information. They provide the unified Incident Command, Incident Coordination Group (ICG), and Multiagency Coordination (MAC) Group(s) access to accurate, timely, and appropriate data needed for decision making for FAD incidents.[1]

IM includes all components and stages of the information management life cycle, while IT comprises the infrastructure that stores, retrieves, transmits, and manipulates data generated through IM. IM and IT systems are used together in FAD incidents to ensure that responders and stakeholders have the information they need in the right format at the right time.

Critical response information such as traces, diagnostics, premises statuses, and other response activities are likely to be entered into an IM system at a tempo indicated by the incident, availability of personnel, constraints on the response effort, and the requirements of the ICG for situation reporting both internally and externally. In addition, personnel and other response resources are tracked as they mobilize and demobilize. IM systems play a fundamental role in any FAD response effort; because of the importance of data to both accurate situation reporting and to direct activities in the field, all IM activities are a priority.

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[1] States and other stakeholders may also use VS IM and IT systems, as appropriate, as part of preparedness, response, and after-action. However, the focus of this document is on use by APHIS VS.

1.1 OVERVIEW OF DOCUMENT

1.1.1 Purpose

The purpose of this document is to provide information about how VS manages and reports information about an FAD incident, during an FAD incident, primarily at the level of the ICG. This document gives readers information about IM systems that the ICG relies on in the event of an FAD outbreak or an emerging disease incident (EDI).[2]

This document presents a high-level overview of how routine FAD incident IM and reporting is conducted at the ICG, predominately in the IM Section of the ICG. It covers an overview of systems and reporting required for an effective FAD response. The term *reporting,* here, refers to information—specifically routine situation reports or other types of reports—provided to internal and external stakeholders directly involved in the incident. Reporting plays an important role, not only in directing disease mitigation activities in the field for the unified Incident Command, but also in resource allocation, budgeting, and internal and external communication regarding the incident.

Reporting does not replace or supplant "communications." Instead, reporting offers information and data on the incident that can be used in communications materials, such as websites and press releases.

1.1.2 Scope

While IT provides the essential and technical framework for IM systems, IT details are beyond the scope of this document. The IM systems discussed here, taken together, provide accurate and timely information to responders, decision-makers, and stakeholders.

This document offers a wide perspective on how internal and external reporting during an FAD incident enable information sharing and a common operating picture between VS National Incident Management Teams (NIMTs) or a unified Incident Command and the ICG.[3] However, this document does not elaborate on the general roles and responsibilities or organization of the unified Incident Command, ICG, or MAC Group(s) that may be established in an FAD incident. Additional information on the organization and structure of these groups can be found in *APHIS FAD Framework: Roles and Coordination (FAD PReP Manual*

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[2] This document does not cover the use of IM systems for non-emergency, program diseases, though the same IM systems and processes are often utilized.

[3] There are currently 5 standing VS NIMTs. In an incident, other Incident Management Teams (IMTs) may also be deployed from States, other Federal agencies, created ad-hoc, or contracted. NIMT refers specifically to the VS teams; IMT is a more general reference to IMTs that may be deployed to an incident.

1-0)—this document also provides extensive information on incident management and incident coordination for FAD incidents in the United States.

In addition, this document is not a user manual for APHIS IM/IT systems. Each system has specific user requirements, roles, training, and instructions for use. Resources are available for readers to become more familiar with specific IM systems as needed, such as instructor-led and self-directed training opportunities.

In some cases, the IM systems discussed within this document are for APHIS-use only. In other cases, States may be granted the ability to use APHIS systems, as may other qualified parties, like Federal contractors. The broad information offered in this document on IM systems and reporting is intended for general knowledge and awareness both inside and outside APHIS. It offers all potential responders a transparent opportunity to better understand the expectations, priorities, and challenges of IM and reporting during an FAD incident.

Finally, other parts of the ICG than the IM Section may also produce reports, analyses, and other deliverables. However, the focus of this document is the routine reports used to manage the response and develop common operating information. These reports are predominately developed by the IM Section, in association and collaboration with other sections in the ICG as needed.

1.1.3 Framework for FAD Incident Information Management

While the focus here is on IM during an FAD response, particularly at the level of the ICG and the IM Section, there is a great deal of ongoing communication within APHIS and its partners regarding response preparedness and lessons learned once a disease outbreak has been effectively managed. Figure 1-1 shows the cyclical configuration of how APHIS prepares to manage data, collects and organizes those data during a response, and reviews it after the FAD incident in order to better prepare for the next FAD emergency.

Figure 1-1. The FAD Incident Information Management/ Reporting Life Cycle with Examples

Note: The focus of this document is on information management and reporting from an ICG perspective: the documents or items noted in this graphic are examples of key pieces of IM at each stage and are not meant to be a complete list of all IM products.

1.1.4 Prior FAD PReP Manual 3-0

This *APHIS FAD Framework: Incident Information Management and Reporting (FAD PReP Manual 3-0)* does replace some of the information that was contained in the prior *FAD PReP Manual 3-0: Incident Coordination Group Plan*. All information from this earlier manual is now incorporated into either this new *FAD PReP Manual 3-0* or the *APHIS FAD Framework: Roles and Coordination (FAD PReP Manual 1-0).*

This document, *APHIS FAD Framework: Information Management and Reporting,* also supersedes the previously used *NAHEMS Guidelines: Information Management*, which is no longer available. As IM systems change, so do reporting and organizational requirements. These documents are reviewed and updated as needed to accurately reflect current response plans and procedures for FAD incidents.

1.2 GOALS OF AN FAD OUTBREAK RESPONSE

From beginning to end, IM (including reporting) activities are a critical component of a response effort. The three goals of an FAD outbreak response are as follows:

To (1) detect, control, and contain the FAD in animals as quickly as possible; (2) eradicate the FAD using strategies that seek to stabilize animal agriculture, the food supply, and the economy, and to protect public health and the environment; and (3) provide science- and risk-based approaches and systems to facilitate

continuity of business for non-infected animals and non-contaminated animal products.

Achieving these three goals will allow individual livestock facilities, States, Tribes, regions, and industries to resume normal production as quickly as possible. They will also allow the United States to regain FAD-free status without the response effort causing more disruption and damage than the disease outbreak itself.

1.3 GOALS FOR INFORMATION MANAGEMENT ACTIVITIES

1.3.1 Preparedness Goals

The preparedness goals for IM are to

- ensure that local, State, Tribal, and Federal IM systems are compatible for sharing data and information or that plans and processes are in place before an incident to efficiently share data and information;

- identify gaps or weaknesses in current IM systems during a large-scale FAD outbreak, especially related to communicating incident goals and objectives, status reports, tracing information, premises status information, diagnostic results, epidemiology reports, permits for movement, and resource information; and

- improve capabilities for IM for a large-scale or complex outbreak.

1.3.2 Response Goals

The response goals are to:

- Perform Emergency Management Response System 2.0 (EMRS2) data entry processes or information downloads in 24-hour intervals or less, or as requested by the National Incident Coordinator (NIC) or Deputy NIC. Data entry should be as close to real-time as feasible.

- Effectively communicate incident goals and objectives, progress, tracing information, premises status information, diagnostic results, epidemiology reports, permits for movement, and resource information in a timely and accurate manner both internally and externally.

Additional response goals may be developed for specific types of incident responses. For example, specific highly pathogenic avian influenza response goals

are available.[4] These goals reflect the characteristics of the incident (e.g., geographically widespread, fast-paced) and other requirements.

1.4 ROLES AND RESPONSIBILITIES FOR INFORMATION MANAGEMENT FOR AN FAD INCIDENT

IM takes different forms during an FAD response than it does during "peacetime," or when there is no active response ongoing. Effective IM during an incident critically depends on all personnel taking responsibility for accuracy and quality control when entering, using, and sharing information. Additionally, it is important that the right "type" or level of data specificity is available to the appropriate audience in an accessible format.

APHIS uses the National Incident Management System (NIMS) as a framework for FAD preparedness and response efforts. NIMS provides a systematic, consistent approach for Federal, State, Tribal, and local governments and other responders to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. NIMS defines the needs of communication and IM systems as being able to maintain a common operating picture through the constant flow of information. The scope and purpose of this document are consistent with these principles: this helps to ensure effective decision-making is supported by accurate information and communication.

Because EMRS2 is the official system of record for FAD incidents, and plays the largest role in both IM and reporting during an FAD incident, personnel must be focused on data quality control, ensuring that information from the field is entered in a timely and accurate manner.

1.5 USDA APHIS AUTHORITIES FOR FOREIGN ANIMAL AND EMERGING DISEASES

The Code of Laws of the United States of America (U.S.C.) and the Code of Federal Regulations (CFR) are authorities representing different stages of the legislative process. The U.S.C. provides the general and permanent statutes of the United States, which are passed by Congress and signed by the President. Executive branch agencies then interpret the U.S.C., writing detailed regulations for the CFR. The CFR is developed through a public rulemaking process, where the public is allowed to comment. For more information, please see the *APHIS Foreign Animal Disease Framework: Roles and Coordination* (*FAD PReP*

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[4] USDA APHIS, 2015. Highly Pathogenic Avian Influenza (HPAI) Response Goals. https://www.aphis.usda.gov/animal_health/emergency_management/downloads/hpai/responsegoals.pdf.

Manual 1-0). In an FAD incident, the U.S.C. and CFR provide policy, via statutes and regulations, for USDA; interim regulations can be implemented—in the event of an outbreak—to prevent the spread of disease.

USDA APHIS VS complies with all Federal requirements, rules, and regulations to keep information secure and confidential. The USDA APHIS Chief Information Officer and the VS Chief Information Officer may provide additional guidance or requirements at any time. APHIS personnel are responsible for being knowledgeable about these requirements and ensuring they are adhering to any policy.

As specified in VS Guidance Document 12001, an FAD is defined as a terrestrial animal disease or pest, or an aquatic animal disease or pest, not known to exist in the United States or its territories. An FAD may be a World Organization for Animal Health (OIE) listed terrestrial and aquatic animal disease; additionally, at any time, the Secretary of Agriculture, or designee, may designate a disease or pest as an FAD. An emerging disease is defined in the VS *Emerging Animal Disease Preparedness and Response Plan.* An emerging disease incident is any incident, involving an emerging disease, that requires a field investigation. An FAD or emerging animal disease may involve livestock, poultry, other animals, and/or wildlife.

In the event of an FAD or emerging animal disease outbreak in domestic livestock that involves wildlife, USDA APHIS will work in close collaboration, communication, and coordination with State, Tribal, and Federal wildlife agencies that have primary jurisdictional authority and subject matter expertise for wildlife.

For information on the procedures for an FAD investigation and specimen submission, please see VS Guidance Document 12001 and the *Foreign Animal Disease Investigation Manual (FAD PReP Manual 4-0).*

1.5.1 Animal Health Protection Act

APHIS receives its permanent and general regulatory authority from the Animal Health Protection Act (AHPA), 7 U.S.C. 8301 *et seq.*

The AHPA enables the Secretary of Agriculture to prevent, detect, control, and eradicate diseases and pests of animals, including foreign animal and emerging diseases, in order to protect animal health, the health and welfare of people, economic interests of livestock and related industries, the environment, and interstate and foreign commerce in animals and other articles. The term "animal" means any member of the animal kingdom (except a human), 7 U.S.C. 8301-8302. The Secretary is specifically authorized to carry out operations and measures to detect, control, or eradicate any pest or disease of livestock, which includes poultry, 7 U.S.C. 8308, and to promulgate regulations and issue orders to carry out the AHPA (7 U.S.C. 8315). The Secretary may also prohibit or restrict the importation, entry, or interstate movement of any animal, article, or means of

conveyance to prevent the introduction into or dissemination within the United States of any pest or disease of livestock (7 U.S.C. 8303-8305).

1.5.2 Code of Federal Regulations

Title 9 of the CFR provides detailed USDA APHIS administrative regulations for the control and eradication of animal diseases, including FADs and emerging animal diseases. Below are several key sections of the CFR to safeguard public health, animal health, animal products, interstate commerce, and international trade. Please refer to the *APHIS Foreign Animal Disease Framework: Roles and Coordination (FAD PReP Manual 1-0)* for more information:

- ◆ 9 CFR 71.2

  - ➤ Secretary (of Agriculture) to Issue Rule Governing Quarantine and Interstate Movement of Diseased Animals, Including Poultry

- ◆ 9 CFR 71.3

  - ➤ Interstate Movement of Diseased Animals and Poultry Generally Prohibited

- ◆ 9 CFR 53

  - ➤ Foot-and-Mouth Disease, Pleuropneumonia, Rinderpest, and Certain Other Communicable Diseases of Livestock or Poultry

- ◆ 9 CFR 161

  - ➤ Requirements and Standards for Accredited Veterinarians and Suspension or Revocation of Such Accreditation.

Chapter 2
Overview of Information Management Systems Used in an FAD Incident

Successful response efforts to any FAD incident require the coordinated use of IM systems for disease management, diagnostics, common operating information, and logistics. When APHIS responds to an FAD incident, primary IM systems used in these capacities include:

- EMRS2

- Emergency Qualification System (EQS)

- Laboratory Messaging System (LMS) (used by the National Veterinary Services Laboratories [NVSL] and in the National Animal Health Laboratory Network [NAHLN])

- State data systems, e.g., USAHerds

- Third party systems

  ➤ Geographic information systems (GIS)

  ➤ Tableau.

This chapter provides a general overview of these systems and their purposes in FAD emergency response (illustrated in Figure 2-1). Because EMRS2 is the APHIS system of record for all FAD incidents, and used most heavily in IM and reporting during an incident at the ICG level, there is a larger focus in this chapter on EMRS2. Other systems play a critical role as well during FAD incidents. More specific details on how these systems are used in FAD preparedness, response, and after an incident are described in Chapters 3, 4, and 5, respectively.

Figure 2-1. IM Systems used in an FAD Outbreak
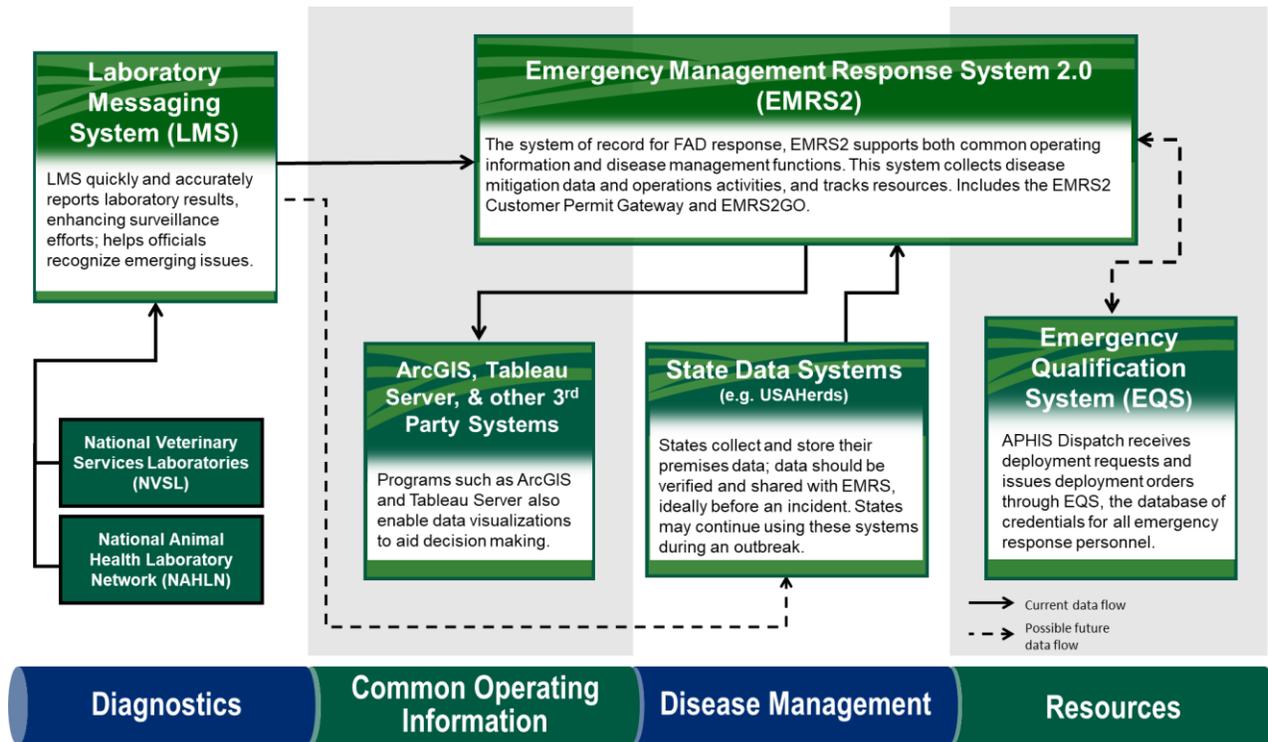
Note: Current data flows indicate where it may be currently possible to electronically share specific data between the systems (in the direction of the arrow). Possible future data flows indicate where electronic sharing of specific data may occur in the future.

2.1 EMERGENCY MANAGEMENT RESPONSE SYSTEM 2.0

Emergency management staff, VS laboratory officials, district and area officials, epidemiologists, and foreign animal disease diagnosticians collaborated to create the first version of EMRS in 2001. EMRS2 resulted from the modernization of EMRS to a Microsoft Dynamics CRM platform in 2011. Recently, EMRS2 updated to a CRM Dynamics 365 platform.

This secure, web-based application is used by Federal, State, Tribal, and local animal health officials to report and manage routine FAD investigations of suspect FAD cases, surveillance and disease control programs, State specific disease outbreaks, and national animal health emergency responses. EMRS2 is the foundation—and USDA APHIS official system of record—for all IM in FAD investigations and incidents. EMRS2 provides a manageable repository for storing disease management information and FAD investigation data. EMRS2 performs the following:

◆ Automates many of the tasks associated with animal disease outbreaks and emergencies.

- ◆ Provides a secure, accessible system for data collection, management, and analysis utilizing a web-based comprehensive investigation, task, and resource management suite on a universal information platform.

- ◆ Provides EMRS2 users (Federal, State, and Tribal veterinarians/employees, animal health officials, animal health technicians, animal disease specialists and epidemiologists) a means to respond to animal disease outbreaks, routine surveillance of FAD/EDI and all-hazard animal incidents.

EMRS2 is the central IM system used by the ICG in an FAD incident, and the APHIS system of record for all FAD incidents. Therefore, EMRS2 is an important focus of this chapter.

2.1.1 Organizational Information

The EMRS2 Program and associated staff fall under the National Preparedness and Incident Coordination (NPIC) Center, which is located in Surveillance, Preparedness, and Response Services (SPRS) in VS. The EMRS2 Coordinator manages a team of permanent EMRS2 Specialists during peacetime and reports to the NPIC Director.

As an IT system, EMRS2 is also overseen by the VS Office of the Chief Information Officer. Staff from this office are responsible for developing, deploying, and supporting technical requirements for EMRS2.

2.1.2 Functionality

EMRS2 is a relational database. It employs a custom secure role protected interface built upon the Microsoft Dynamics platform, and is used to document, track, and manage investigations, tasks, and resources. There are four overarching business objectives for EMRS2 that indicate the scope of this system and the many ways users can leverage EMRS2 for IM:

- ◆ *Disease Management.* Collects, manages, and collates all information on investigations or incidents. EMRS2 provides actionable information that allows incident management personnel to make rapid decisions in order to protect U.S. agriculture, animal health, public health, the environment, and the economy.

- ◆ *Resource Management*. EMRS2 can manage personnel and equipment deployed during an incident. During incidents, many activities are ongoing simultaneously and resources need to be tracked and positioned strategically for increased efficiency and coordination.

- ◆ *Knowledge Management.* EMRS2 manages documentation and makes it accessible to all users. It provides overarching information on incident

response conducted within the National Response Framework (NRF) as well as incident specific documentation from the field. EMRS2 training, documentation, and job-aids are also available. Incident Management Teams can also store documents and forms here that are consistent with the NRF and NIMS.

◆ *Enterprise Reporting.* In any investigation, incident, or other animal health event, a common situational picture amongst officials and responders is critical. EMRS2 provides extensive capabilities for advanced queries and user-generated reports. It can also spatially map premises and disease information, and offer targeted reporting for local, State, regional, or national audiences.

Additionally, within each of these four general areas of functionality, EMRS2 can easily provide graphs, charts, and other visualizations to report the current state of events and to project anticipated requirements for incident management and resource management. This allows decision makers and IMTs (including the VS NIMTs) to respond appropriately.

2.1.2.1 USING EMRS2 FOR OUTBREAK INFORMATION MANAGEMENT & REPORTING

The central use of EMRS2 is to track premises statuses and quickly drill down on associated details, including information about animals located on that premises. While EMRS2 is primarily thought of as a database of typical animal production facilities (farms, ranches, dairies, hatcheries, etc.), it also records information on other types of animal and animal product businesses, such as diagnostic laboratories, feed stores, zoos, markets, slaughter facilities, and veterinary practices as related to incidents and investigations. Due to the integrated nature of animal agribusiness in the United States, having a repository of many informational pieces connected in a relational database—either by location, business practice, or other factors—is invaluable during an FAD incident for determining the threat and impact of the disease. Please see Appendix C for an example of a basic EMRS2 workflow for an FAD investigation and an FAD outbreak.

The following five sections highlight critical uses of EMRS2 in FAD preparedness, response, and after-action: disease management, tracing, permitting, resource management, and mapping. Certainly there are other capabilities of and uses for EMRS2; these are the most commonly used capabilities by the ICG in relation to FAD incidents.

2.1.2.1.1 Disease Management

Disease management involves a dizzying array of activities, which are recorded and managed within EMRS2. Premises details and other basic information about producers, animals, and business structures are easily associated with data

gathered during an FAD response, from investigation to mitigation. USDA and State/Tribal officials using EMRS2 are able to follow a premises from a first reported contact, to diagnostic sample submission, through the virus elimination stage (for a positive premises), with full transparency about where a premises stands in the response and recovery process. The EMRS2 platform allows users, depending on their permissions, to run queries and download data of response information as needed.

2.1.2.1.2 Tracing

The tracing capabilities of EMRS2, and the ability to manage and report this information, are robust. For both intrastate and interstate movements, EMRS2 can trace animals, groups of animals, and items/objects that are involved with animal disease outbreaks. EMRS2 provides the structure and capabilities to also manage the disease mitigation activities (for example, testing, movement control, depopulation, etc.) associated with these animals. EMRS2 manages this information in a secure environment, which gives Incident Commanders and program managers the ability to evaluate the effectiveness of tracing and associated activities during an incident or outbreak, within a program, or on a national basis. EMRS2 supports traceability through integration with various modules of the VS Animal Disease Traceability Information Systems.

2.1.2.1.3 Permitting

Permits and permitted movements for movements into, within, and out of a regulatory Control Area (during an FAD incident only) are issued and tracked through EMRS2. In addition, as part of a relatively new update, producers can directly request permits using the EMRS2 Customer Permit Gateway. The EMRS2 Customer Permit Gateway is a secure web-based, producer-facing portal that is synchronized with the full EMRS2 relational database. The Gateway enables permit data, including requests, to go directly from the producer (who enters them into the Gateway) into EMRS2, for processing by the unified Incident Command or State partners. This new interface then allows producers to monitor the status of their permit requests, receive approved permits in an electronic PDF, and add movements to an already approved permit (if applicable) in real-time. The Gateway eliminates the need for a paper process and streamlines communication amongst producers/owners, States, and APHIS. Further information about permitting is found in *Permitted Movement* (*FAD PReP Manual 6-0*).

2.1.2.1.4 Resource Management

EMRS2 can be used to manage personnel deployments. For an FAD incident, EQS is the official system used to request and order personnel (see Section 2.2). These deployed personnel are also tracked in EMRS2; in many incidents, other Federal employees (non-APHIS), State responders, and contractors are also tracked in EMRS2. This enables the ICG, unified Incident Command, emergency

responders, and program analysts to be able to access historical, current, and future deployment activity. These data aid officials in managing resources, planning future deployments, or managing deployments for concurrent events.

EMRS2 can also track other types of resources such as equipment and supplies: EMRS2 has the ability to dispatch and track fleet and supply inventory during an incident, if the SPRS Logistics Center and National Incident Commander decide that EMRS2 should be used to track these resources.

2.1.2.1.5 Mapping

Data within EMRS2 can also be displayed geographically using the Advanced Mapping Tool. Users, with data access dependent on their permissions, can create their own maps based on desired specifications. EMRS2 Specialists or advanced EMRS2 users can also create maps to share with other EMRS2 users (e.g., a map of all Infected Premises and a Control Area). Map users can also toggle (turn on and turn off) layers and the maps and select data points for more detailed premises information. This mapping capability enables maps to be created rapidly, with best available data, and viewed by many users simultaneously. With data from EMRS2, this capability enables responders to share a common operating picture and real-time understanding of the situation.

EMRS2 users can export data for use with other applications, including more advanced reporting, data analysis, and GIS (see Section 2.4.1).

2.1.2.2 ACCESSIBILITY

Access to EMRS2 is primarily for State and Federal animal health personnel who must complete an APHIS 513 form. The employee's supervisor or VS contact (for State employees) must sign the employee's APHIS 513 form. Non-APHIS employees must complete the IT Security Awareness course and submit the completion certification along with the 513. Please contact a local EMRS2 Network Associate or IT Specialist to complete and submit a 513. If you cannot locate this information, please email emrs.training.network@aphis.usda.gov. Details about EMRS2 training is available in Chapter 3.

EMRS2 is also available as a mobile application, EMRS2Go. This application has been successfully pilot tested and is currently undergoing final review for full operational use. EMRS2Go provides a new off-line mobile functionality, which allows authorized users to collect data for FAD investigations, surveillance, and other tasks remotely—with or without an internet connection. When the user is back in an internet service area, the collected data in EMRS2Go are then synchronized with EMRS2. Using EMRS2Go reduces the need for paper records or jotted notes at a premises, and eliminates the need for data entry back at the office or Incident Command Post (ICP). This streamlines existing processes, saving time and reducing the likelihood of misplaced notes or transcription errors

during data entry. EMRS2Go also enables data to be entered in closer to real-time, resulting in better information for officials and responders.

2.2 EMERGENCY QUALIFICATIONS SYSTEM

EQS is a database of emergency response personnel and their credentials for all emergency response positions; this system is used to officially deploy qualified personnel to an incident.

2.2.1 Organizational Information

EQS is an APHIS-wide system managed by the Emergency Management, Safety, and Security Division (EMSSD); EQS is not specifically a VS system. For more information on EQS, please contact EMSSD.

2.2.2 Functionality

EQS stores the skills and qualifications of emergency response personnel along with other personnel data imported from systems maintained by the National Finance Center (also known as NFC). EQS APHIS Dispatch can search the database according to pre-defined qualifications/certifications. EQS also has the capability of housing training documents. For APHIS employees, training documentation and qualifications flow into EQS from USDA's Agricultural Learning System (AgLearn).

During an FAD incident, requests for APHIS personnel are typically submitted by the unified Incident Command to the NIC for approval. These resource requests can be created in EMRS2 and output as a Resource Request Worksheet for entry into EQS. Once approved, APHIS Dispatch uses EQS to fill these resource orders and to deploy approved personnel to the location requested. APHIS Dispatch checks personnel in and out of EQS as deployments occur during the incident.[1]

2.3 LABORATORY MESSAGING FOR FAD INCIDENTS

LMS is designed to quickly and accurately report and transmit laboratory results in the event of an animal disease outbreak, helping to enhance surveillance programs and recognize emerging issues.

2.3.1 Organizational Information

The laboratories that use LMS during an APHIS FAD response are organized under Science, Technology, and Analysis Services (STAS) of VS, along with the

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[1] At the ICP, EMRS2 is used to check personnel in and out of the incident. At this time, this information is communicated manually, typically via email, to APHIS Dispatch so that this information can also be updated in EQS.

other VS science centers: Center for Epidemiology and Animal Health (CEAH) and the Center for Veterinary Biologics.

2.3.1.1   NATIONAL VETERINARY SERVICES LABORATORIES

NVSL serves as a reference laboratory both nationally, for USDA program diseases, and internationally, for the OIE, and Food and Agriculture Organization of the United Nations. NVSL also provides reference assistance to other U.S. and international veterinary diagnostic laboratories as requested. NVSL offers nearly 500 specific diagnostic tests and provides diagnostic support to FAD investigations both at Ames, IA, and at the Foreign Animal Disease Diagnostic Laboratory located on Plum Island, NY. NVSL also coordinates specific NAHLN activities, participates in methods validation, and provides training, proficiency testing, assistance, materials, and protocols for diagnostic tests.

Contact information, submissions instructions, and other information can be found on the NVSL website at www.aphis.usda.gov/nvsl. Additionally, training for State and Federal field veterinarians to detect FADs and training for laboratory diagnosticians are critical functions of NVSL. For a current list of available training, download NVSL's course catalog here. NVSL also offers customized training (as resources allow) to meet specific needs.

2.3.1.2   NATIONAL ANIMAL HEALTH LABORATORY NETWORK

NAHLN is a nationally coordinated network and partnership of Federal, State, and university-associated animal health laboratories. NAHLN laboratories provide animal health diagnostic testing to support early detection, rapid response, and appropriate recovery from high-consequence animal diseases that threaten U.S. animal agriculture and the nation's food supply. NAHLN laboratories are likely to be the first-line of defense providing early recognition of a FAD in the United States and responding with a surge capacity or testing large numbers of samples for specific disease agents. Originally composed of twelve laboratories, the NAHLN has grown to include almost 60 State and university laboratories distributed throughout the United States.

More information about the NAHLN can be found at www.aphis.usda.gov/nahln, including a list of the all NAHLN laboratories, a current list of diseases under NAHLN scope, and surveillance as well as emergency preparedness activities.

2.3.2 Functionality

LMS does the following:

- ◆ Provides automated alerts on defined animal health events to authorized personnel who support disease prevention and response.

- ◆ Allows the NVSL and NAHLN labs to securely transmit and store data using nationally recognized health information standards, which improves data quality and data reuse in systems, especially in EMRS2.

- ◆ Enables reporting on the relevant laboratory findings for each submission, which allows for the effective data routing and central aggregation in the LMS repository.

LMS uses standardized terminology (Systematized Nomenclature of Medicine [SNOMED] and Logical Identifiers Names and Codes [LOINC]) with the diagnostic electronic message standards (Health Level Seven [HL7]) used by human-health informatics systems. Data standardization helps to ensure that information can be accurately transferred from one system to another and facilitates comparison across data sets from different laboratories.

LMS has three key components:

- ◆ *Laboratory Registry.* Veterinary diagnostic laboratories are registered in the system. Information stored for each registered laboratory includes capacity and capability levels that support testing plans during both routine animal health surveillance activities and emergency outbreak responses.

- ◆ *Laboratory Reporting.* Laboratories registered in the system can submit laboratory reports with test results as electronic messages sent directly from their own laboratory information management system (LIMS). These messages are transmitted based on data exchange and terminology standards (HL7, LOINC, SNOMED). The LMS routes the laboratory results to the appropriate APHIS program unit and stores the results in an integrated national data repository. Only personnel with the appropriate user role-based security access rights can view the laboratory results on the internet.

- ◆ *Monitoring of Laboratory Findings*. Laboratory findings stored in the data repository will be monitored for quality, aberrant patterns, and unexpected trends. This can serve as an early warning for animal disease incidents, novel infections, or uncharacteristic testing performance. The monitoring process can also be configured to trigger automated notification alerts that are distributed to appropriate parties.

The NVSL and NAHLN laboratories feed test results into LMS in order to communicate the information with each other and to EMRS2. At this time, greater than 50 percent of NAHLN laboratories are capable of electronically messaging test results into EMRS2 with significant efforts aimed at supporting the remaining NAHLN laboratories to develop messaging capabilities. Efficient and real-time (or close to it) lab messaging into EMRS2 is vital in an FAD incident to ensure that responders at all levels are looking at the same, most recent laboratory results. Increasing laboratory messaging capabilities is a priority for VS.

2.4 THIRD PARTY SYSTEMS FOR ADVANCED MAPPING AND VISUALIZATION

Third party systems contribute to FAD outbreak response through the dissemination of common operating information and more advanced types of analysis. These systems may include GIS programs such as ArcGIS (desktop or web-based) and Tableau (desktop or server-based), which facilitate decision making through data visualization, analyses, and custom product development (maps, charts, and others).

2.4.1 Geographic Information Systems

While not purely an IM system, GIS capabilities—often integrated into existing systems, or leveraging their data—are critical to interpret animal health data. GIS enables the development of more complex, standardized map products for incorporation into reporting and additional analyses. GIS empowers VS to create maps and analyze geographically referenced data for patterns and trends. In APHIS, Information Management and Analytic Services (IMAS), located in CEAH (in STAS), is primarily responsible for GIS activities within VS, including staffing the GIS Mapping Cell that plays an important role in the IM Section in the ICG.

Currently, GIS scripts developed by the VS GIS team replicate and process data from EMRS2 during an animal disease outbreak. These scripted processes enable rapid development and delivery of map products for responders and VS staff. Maps are available on demand within the secure APHIS GIS Portal, a secure, centralized web environment for map tools and products. The GIS Portal provides both dynamic and interactive maps, as well as downloadable PDF map files for reporting and critical communication during an outbreak.

Two important reasons to use GIS are as follows:

◆ *Data Inventory or Data Visualization:* GIS used with animal health data can be used to produce routine reports of animal disease incidence, visualize control program planning, facilitate priority setting, and fulfill international reporting requirements. Reports can convey a realistic picture of the current animal disease situation for decision makers, which is particularly important in outbreak response.

◆ *Analysis or Data Exploration:* Ongoing research is essential to the effective implementation of animal disease control programs. Using geospatial analysis tools and methods, VS can evaluate and determine disease spread patterns and evaluate risk factors related to animal disease introduction and spread.

ArcGIS software (desktop and web-based; produced by the Esri Corporation) is used by VS to compile, process, analyze, manage, and map animal health and outbreak data. It is commonly utilized in FAD preparedness, response, and after an incident to provide map products and in-depth analysis. Please contact IMAS for further information on VS GIS capabilities, products, and opportunities.

2.4.2 Tableau/Tableau Server

Tableau and Tableau Server are interactive data visualization software products that can query relational databases, online analytical processing cubes, cloud databases, and spreadsheets to generate a number of graph types. For FAD outbreak response, Tableau products can be used to create interactive visualizations based on analyses using outbreak data retrieved from LMS or exported from EMRS2. It can also be used to visualize data from the entire country on resource availability, such as the locations of veterinarians or equipment. There are also individual Tableau licenses in VS in various units used for visual analyses and publishing to Tableau Server for web browser accessibility; IMAS is a primary point of contact and subject matter expert on Tableau and associated capabilities for VS.

2.5 STATE DATA SYSTEMS

While some States use EMRS2, other States record and collect information on premises within their State in IM systems other than EMRS2. There has been a wide variation in how States have managed premises identification and collection of premises data. In particular, some States allow the self-registration of premises, while others allow users to change their information. This can lead to producers registering a residence or mailing address in State systems instead of the address for the physical location of the premises.

VS continues to collaborate with States, stakeholders, and agency partners to encourage the opportunity to contribute to, and strengthen the repository of animal health data; further information is provided in Chapter 3.

2.5.1 USAHerds

USAHerds is one of the primary IM systems that some States elect to use for managing their animal agriculture information. It is a browser-based application that has an enterprise data store. The system allows for the tracking of fields or buildings in a postal address or multiple producers within a given premises, and it supports various means of identifying livestock and poultry.

2.5.2 Other State Systems

Some States have created their own systems, or contracted to use additional IM systems to connect with producers and manage information in a way that suits the unique industries and interests within the State.

Chapter 3
Information Management and Reporting Prior to an Incident

An effective FAD response requires a great deal of preparation. While the need to plan for some response activities such as depopulation or disposal is easily recognizable, IM also requires significant preparedness so that an effective and timely response can be executed. For USDA APHIS, EMRS2 is the official USDA APHIS system of record during any FAD outbreak. It is crucial that premises information and all other data associated with a response be entered into EMRS2 in a timely and accurate manner. Staff must be trained to use IM systems effectively and enter data based on consistent procedures and quality standards. Ideally, it is also possible to easily share data between EMRS2 and other IM systems that may be used, for example, those at the State, Tribal, and local level.

3.1 ROLES AND RESPONSIBILITIES FOR PREPAREDNESS

Within APHIS VS, there are many groups involved with IM and reporting as a part of FAD preparedness. This section broadly describes general activities and who is responsible. It is not an exhaustive list.

3.1.1 Developing Information Management System Capabilities

EMRS2, maintained within NPIC, is the official system of record for all FAD incidents in the United States. In addition to EMRS2, other IM systems support FAD incident response, and responsibility for their development and maintenance lies with their managing units: for example, LMS at NVSL is managed by STAS and EQS by EMSSD. While VS IT supports technical development of these systems, program staffs play the largest role in identifying needs and collaborating on preparedness efforts to achieve the capabilities required by an FAD incident.

Chapter 2 provides more information on these IM systems, which are part of a larger, more comprehensive, VS IT/IM strategy.

3.1.2 Data Management & Quality

Data must be valid and accurate in order to be useful for responders and decision-makers during an outbreak. Data may be vulnerable to quality issues at every step

of the information lifecycle (from entry, to extraction and use, to deletion or removal). Thus, it is the responsibility of every individual involved with the acquisition, maintenance, and/or sharing of information to ensure data are valid and accurate. This is accomplished by establishing and enacting quality control and quality assurance plans as part of preparing for FAD events.

The EMRS2 Staff are the first point of contact for data management and quality issues in EMRS2. They are supported by other NPIC staff and analysts, who assist in making standard operating procedures, data quality guidance, and identifying potential issues that must be resolved prior to an FAD incident.

It is required that personnel always take into account USDA or APHIS-level guidance and policy regarding data management and quality, data sharing and use, and record retention. Personnel should consult with other VS or APHIS units as needed.

3.1.3 Reporting Templates & Processes

It is important that reporting templates and processes are established prior to an incident: while changes will always be required to match the incident's specific characteristics, tempo, and leadership requests, it is always better to start with a useable template than begin from scratch.

As such, NPIC works to develop a wide range of draft situation reports and processes for information use, analysis, and sharing prior to an FAD incident. NPIC works closely with Commodity Staffs in SPRS, the VS NIMTs, SPRS Districts, National Important Export Services, VS leadership, APHIS leadership, and others who may have specific reporting needs.

3.2 PREMISES LOCATION DATA STANDARDS IN THE EMERGENCY MANAGEMENT RESPONSE SYSTEM 2.0

As discussed in Chapter 2, States collect premises information within their borders in IM systems: some States use EMRS2 to hold such information, other States use their own (or third-party) systems. However, having accurate premises data in EMRS2, prior to an incident, significantly facilitates response efforts, allowing resources to be devoted to other critical IM tasks during an outbreak.

In preparation for an animal health incident, States are encouraged to request that premises data be imported into EMRS2. This ensures that EMRS2 Specialists have ample time to ensure data compatibility for upload and resolve any issues that may arise with the State prior to an incident. From the USDA APHIS perspective, having State premises data in EMRS2 prior to an incident is strongly

preferred—rather than importing data during a response—though it is possible to do the latter if required.

3.2.1 Importance of Accurate Premises Location Data

A national Premises Identification Number (PIN) is required in EMRS2 for all premises, regardless of the type. Each PIN will need an accurate premises dataset containing a valid 911 address with a set of matching coordinates (latitude and longitude). It is critical to have the exact physical location of animals for response activities; therefore, these data need to reflect the actual location of the front gate leading to the animals on the premises. If only a mailing address or personal residence address is provided, it may be difficult to locate animals in an emergency. This is extremely problematic during an incident if the address given is not in the same zone or area where the animals are located on the premises. During a fast moving response effort, time spent tracking down physical animal locations is valuable time lost.

3.2.2 State Premises Location Data

Under State authority, there has been a wide variation in how States have managed premises identification and collection of premises data. Some States allow self-registration of premises, while others allow users to change their information. In many cases, these systems let producers register a residence or mailing address instead of the physical location of the premises where the animals are located. Subsequently, and problematically, the national premises allocator and repository—when queried—may pull an address different from the one that has been entered or modified by a producer. While this may not pose a problem for the State(s), this type of data is not compatible with response requirements, which require the actual location of the animals to be entered in EMRS2.

3.2.3 Importing Premises Location Data

A number of methods are available to complete the process of premises data import from States. In some States, it is possible to directly access the State database and query the system using an existing tool. However, in many States, IT capabilities and security issues make the direct access and query process difficult. However, premises data can still be imported into EMRS2 if the State provides a file with three elements: PIN (if assigned), 911 address, and front gate coordinates for where the animals are located.

Once the States provides this information, there are two key stages to import the data. First, a spot check is conducted in a mapping application to ensure that the majority of the premises appear to have valid 911 addresses and matching coordinates entered for the animal location, rather than other types of addresses. Second, raw records are imported into EMRS2; a number of processes then

validate the imported information and create the records required in EMRS2, such as the premises, animal business, investigation, and others.

While it may seem quick and easy to upload raw, invalidated data from States into EMRS2, this can have serious consequences in an outbreak and ultimately diminish the effectiveness of any response effort. If States are not planning to share premises data prior to an outbreak, a quality assurance program can at least help to ensure that the import process of premises into EMRS2 goes smoothly; again, sharing premises information prior to an incident is preferred.

The amount of time required by EMRS2 staff depends primarily on the accuracy of the existing data as well as personnel available. However, if the PIN is already assigned and the data provided by the State is mostly accurate, then it takes approximately 2 hours to import 5,000 premises into EMRS2.

More information is available in the document *EMRS 2.0: Premises Data Transfer to EMRS from External/State-Based Systems*, available on the USDA APHIS EMRS2 webpage ([here](#)).

3.3 DIAGNOSTIC RESULTS IN THE EMERGENCY MANAGEMENT RESPONSE SYSTEM 2.0

Laboratory messaging (from NVSL and/or NAHLN laboratories) through LMS into EMRS2 allows for the real-time transfer of large volumes of diagnostic test results. This electronic messaging is important in an incident to minimize duplicative and time-consuming data entry, simultaneously reducing the likelihood of errors and improving the timeliness of result availability. It also frees up laboratories to focus on testing activities rather than answering questions about results. Critically, laboratory messaging helps to ensure that diagnostic test results are matched to the correct premises. Without electronic messaging, significant backlogs of test results can delay appropriate actions for both infected and non-infected premises (for example, mitigation measures and movements, respectively).

Significant progress has been made to ensure laboratories are able to message results, particularly laboratories in livestock/poultry dense States and specifically for avian influenza diagnostic tests. However, many NAHLN laboratories are still unable to message laboratory results. As part of FAD preparedness, VS recognizes the critical need for electronic messaging of laboratory results and continues to focus resources and personnel on developing messaging capabilities in more laboratories for major FADs.

More information on EMRS2 and sample submission preparedness can be found in the *EMRS 2.0: Recommended Sample Submission Process in Outbreaks* document, available on the USDA APHIS EMRS2 webpage ([here](#)).

3.4 DATA SHARING & COORDINATION

While EMRS2 is the official system of record for an FAD incident, States may elect to use a system or systems other than EMRS2 for IM prior to or during an incident. It is critical, in this case, that processes are developed to ensure data sharing as effective and efficient as possible. For example, guidance has been released on sharing premises data prior to an incident, or performing appropriate quality control measures so that premises data can be rapidly imported during an incident.[1]

States, Tribes, localities, and producers all use various IT systems for IM. Some of these data may be useful or required during an FAD incident. Data sharing is a complex and complicated issue due to many reasons, including—but not limited to—privacy concerns and lack of system interoperability. NPIC continuously collaborates with SPRS Commodity Staffs and others to identify potential conflicts, and work on appropriate resolutions, with States and industry regarding IM and data sharing prior to an incident. Data-sharing—particularly seamless data sharing between IM systems inside and outside of APHIS' IT framework—is a complex issue for all stakeholders because of security requirements, sensitivities regarding the data to be shared, and differences in IM systems being used. Effective response, data security, and data integrity are issues of common interest and mutual concern.

3.5 INFORMATION MANAGEMENT TRAINING FOR FAD INCIDENT RESPONSE

Between the Professional Development Services Branch and the VS Training and Exercise Program (TEP), there are many opportunities for personnel for training and exercising the IM systems used for FAD incidents. EMRS2 training is offered year round, and is typically focused on skills required specifically for a user's role and responsibilities. The VS TEP offers workshops and exercises which also help to identify gaps in current capabilities as well as opportunities to practice using IM systems and reporting processes during peacetime. In addition, the established ICGs have regular calls to identify and discuss any issues which may be important to resolve prior to an incident.

Many IM systems require supervisory approval for read and write access as detailed in Chapter 3. This section identifies some of the major resources to obtain formal training for the various IM systems that may be useful for FAD preparedness and response. In addition to these training courses, users of IM

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[1] USDA APHIS. (2016). *Premises Data Transfer to EMRS from External/State-Based Systems.* https://www.aphis.usda.gov/animal_health/emergency_management/downloads/emrs_premisesdatatransfer.pdf.

systems should take initiative in reading system manuals and reaching out to colleagues for support.

AgLearn is USDA's department-wide system for managing training records and activity. USDA employees and USDA partners can use AgLearn from any web-enabled browser to search, access, enroll in, and record all training opportunities at any time. Over 2,000 learning opportunities are contained in the AgLearn system, including web-based courses as well as registration for traditional, instructor-led training.

3.5.1 Emergency Management Response System 2.0 Training Courses

The following are some of the APHIS Professional Development Services (PDS) training courses for EMRS2 that can be taken through AgLearn:

- ◆ VS Information Systems Training Support Network for EMRS2: This course provides technical and training delivery instruction for individuals who are Network Associates in the VS Information Systems Training Network for EMRS2.

- ◆ EMRS2 for Documentation and Record Management: This course is designed for EMRS2 Data Entry personnel and VS NIMT Documentation Unit Leaders. Participants will obtain the knowledge and skills to use EMRS2 to enter, manage, and retrieve data relating to routine and emergency animal disease activities, including premises/producers, investigations, and movements and tracing.

- ◆ EMRS2 for Epi/Disease Reporting Officers: This course is designed for Epidemiologists and Disease Reporting Officers. Participants will obtain the knowledge and skills to use EMRS2 to enter, manage, and retrieve epidemiological and disease reporting data relating to routine FAD investigations and emergency incidents including premises and producers, investigations, and movements and tracing.

- ◆ EMRS2 for VS NIMT Logistics Personnel: VS NIMT Logistics personnel will obtain the knowledge and skills to use EMRS2 during an emergency incident to manage resources including personnel, fleet, and property, as well as for data retrieval and reporting.

- ◆ EMRS2 for VS NIMT Planning Personnel: VS NIMT Planning personnel will obtain the knowledge and skills to use EMRS2 during an emergency incident to manage disease activities including premises and producers, investigations, and movements and tracing; to manage check-in and check-out of personnel; and for data retrieval and reporting.

For full information about PDS classroom offerings, see the PDS Training Courses catalog at:
[https://www.aphis.usda.gov/animal_health/prof_development/downloads/pds_cat alog.pdf](https://www.aphis.usda.gov/animal_health/prof_development/downloads/pds_catalog.pdf).

3.5.2 Animal Disease Traceability Training Courses

AgLearn offers both an instructor-led and web-based eponymous Animal Disease Traceability (ADT) course. Additionally, users can register for:

◆ Livestock Market Training/ADT Workshop: Hands-on training will improve knowledge in the following areas: livestock market operations and VS regulations and authority within approved markets; FAD clinical sign recognition and the appropriate response to a suspected disease; Federal regulations and standards established for interstate movement of animals and the ADT rule; farm animal welfare concepts; communications with stakeholders regarding animal health issues and regulations; and implementing ADT in the field (please note, not all sessions will have this ADT field workshop).

3.5.3 Mobile Information Management Training Courses

The following are training courses for mobile information management (MIM) that can be taken through AgLearn:

◆ VS Information Systems Training Support Network for MIM: The VS Information Systems Training Support Network for MIM is being developed to leverage training resources and provide local support for VS Information Systems. The goal of the network is to evolve the existing informal training support network to a formal comprehensive network to support end-users of VS IT applications. This course provides technical and training delivery training for individuals who will be part of a formal training support network for MIM.

◆ MIM Advanced: MIM Advanced will provide advanced MIM users with training on administration of MIM devices and data. The course will not cover basic use of MIM devices, instead focusing on administration of MIM data, troubleshooting hardware and software, installing devices, and managing information flow.

3.5.4 Geographic Information Systems Training Courses

AgLearn hosts a variety of courses that cover GIS topics. A selection of these courses include:

◆ Advanced GIS: The Advanced GIS Course will present advanced topics in GIS processing, queries, data summarization, and cartography, including

knowledge needed to perform spatial analysis to sort, select, and summarize multiple data layers.

◆ Geospatial Training for Epidemiologists using ArcGIS: This course will include hands on training in ArcGIS software as it relates to the field epidemiologist's role in VS. The course will cover the basics of using a Global Positioning System (GPS) to collect geographic coordinates/locations, transferring data to ArcGIS, displaying data, performing basic spatial analyses, and creating map products. A foundation ArcGIS course (online) is a prerequisite. Students will have the opportunity to work with disease data and current outbreak and surveillance scenarios within the ArcGIS environment.

3.5.5 VS Professional Development Services

In addition to the EMRS2 courses offered on AgLearn, PDS offers training opportunities on topics that may be useful for emergency management professionals, including a classroom training module for MIM itself:

◆ MIM Training: This course provides training for users who are familiar with MIM, including installing devices, troubleshooting hardware and software, managing information, and alternate ways of using MIM technology. This course will equip participants with the knowledge and skills they need to use and assist others with MIM, including working with MIM Manager, using MIM Personal Digital Assistant, using Bluetooth, MIM Setup and Troubleshooting, importing and merging files into MIM, and using MIM for exports.

For full information about PDS classroom offerings, see the PDS Training Courses catalog at:
https://www.aphis.usda.gov/animal_health/prof_development/downloads/pds_catalog.pdf.

3.5.6 VS Information Systems Training Network

The VS Information Systems Training Network retains experienced VS IT application users of EMRS2, MIM, and other applications who may be available for training, answering questions, and providing field or web-based assistance. To reach the first available Network Associate for each respective IT application, please email:

◆ EMRS2: emrs.training.network@aphis.usda.gov

◆ MIM: mim.training.network@aphis.usda.gov

The VS IT System Helpdesk also maintains geographical listings of these Network Associates that can be referenced at:

https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/SA_Training_and_Development/SA_Applications_Training/SA_VS_Applications/CT_VS_IT_Systems_Helpdesk

3.5.7 Self-Directed Training Resources

Some of the IT systems referenced in this document have more information about application access and use on the web. The following is a partial list of self-directed training resources available.

- EMRS2:
  https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management/sa_emrs/ct_emrs

- ADT:
  https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/SA_Traceability

- ArcGIS: http://www.esri.com/

- Tableau/Tableau Server: https://www.tableau.com/learn/training

Chapter 4
Information Management & Reporting During an Incident

IM and reporting during an FAD incident or outbreak ensures that responders, stakeholders, and decision-makers have access to accurate and timely critical emergency response information. During FAD incidents, routine reports may be needed daily, weekly, and/or as requested. These routine reports are completed by members of the National ICG, predominately in the IM Section, for internal and external reporting purposes and to assist in incident management. Additional reports outlined in this chapter, including those produced by other ICG Sections, may also be required given the size and scope of the incident.

This chapter focuses on IM and reporting at the ICG level; the unified Incident Command and ICP have separate and concurrent reporting needs and requirements that are generally not covered here.[1]

This chapter emphasizes the importance of IM data standards for quality reporting. Valid and timely data collection starts in the field and ultimately results in reports that are both accurate and relevant. This chapter provides guidance on the creation and distribution of reports, including frequency, distribution, and sources of data/information.

Primary ICG reports include the following (appendices contain further information and example reports):

- ◆ Situation Reports (Sitreps)

    - Daily Mini-Situation Report (Appendix D)

    - Daily Situation Briefing (Appendix E)

    - Weekly Situation Report (Appendix F)

    - Summary List of Infected Premises (Appendix G)

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[1] VS NIMTs maintain standard operating procedures and other documents specifying specific reporting requirements (both NIMS requirements, like Event Logs, and situation reporting requirements). The National ICG typically does provide quality control/quality assurance for IMT sitreps that are produced.

- ◆ Specific Reports

  - – Epidemiological Report

  - – Permitting and Movement Report

  - – Deployment Report

- ◆ Maps

  - – ICG Maps

  - – Standard Maps

  - – Summary Mapbook.

Table 1 below provides a summary of many of the reports used in an FAD incident.

Table 1-1. Summary of Reports

Report Type		Frequency of Report	Source of Data (Currently)	Potential Audience
Situation Reports	*Daily (Mini Report and/or Briefing)*	Daily	EMRS2 (including Tally Sheet), IMT/State sitreps, phone calls, financial staff	ICG, States
	Weekly (National ICG Report)	Weekly	EMRS2 (including Tally Sheet), IMT/State sitreps, phone calls, financial staff, other reports	USDA and APHIS Leadership, ICG, States
	Summary List of Infected Premises	Daily	Tally Sheet	APHIS Leadership, ICG
Specific Reports	*Epidemiological*	Bi-Weekly	EMRS2	ICG, States
	Permitting & Movements	Weekly	EMRS2	ICG, States
	Deployment	Weekly	APHIS Dispatch, EMRS2	APHIS Leadership, ICG, States
Maps	*ICG Maps*	Daily then weekly	Tally Sheet	APHIS Leadership, ICG, States
	Summary Mapbook	Bi-Weekly (As needed)	EMRS2 (including Tally Sheet), wildlife data	Public
	Standard Maps	Daily then weekly	Tally Sheet	APHIS Leadership, ICG, States

4.1 ROLES AND RESPONSIBILITIES

During a response, the roles of IM personnel vary depending on the incident and may also vary over the course of a response, based on the size, duration, and complexity of the incident. Large-scale incidents may involve multiple premises and may cover large areas. As a component of NIMS, the Incident Command System (ICS) establishes a single overall command structure for government, private sector, and nongovernmental organizations to effectively and efficiently collaborate for IM. Under this ICS, IM duties and responsibilities extend across several layers of organizational responsibility. Please see Appendix B for an example of the National ICG structure; the IM Section is predominately responsible for all routine incident IM and reporting.

4.1.1 Data Collection & Entry

Currently, during an FAD incident, data collection and entry are largely done by the unified Incident Command. VS NIMTs each have an EMRS2 Specialist as well as an EMRS2 Data Entry Assistant; other personnel may also assist with data entry tasks. At times, more than one EMRS2 Specialist or Data Entry Assistant may be needed at any given ICP, and a Data Entry Assistant may be assigned to handle only Operations, Logistics, or Planning Section data for the unified Incident Command. During large or widespread incidents, it may be necessary to centralize data entry efforts or utilize virtual personnel for data entry. The unified Incident Command informs the ICG when additional resources or support is needed.

Other IM systems also transfer (manually or electronically) data to EMRS2 during an incident, including the LMS for laboratory results. As discussed in Chapter 3, while some laboratories have electronic messaging set up so that the results flow directly into EMRS2, additional work is ongoing to set up this capability for more laboratories and diseases. The NVSL and NAHLN both have representation on the ICG. For more information on the integration of sample submission and results processing with EMRS2, please see the document *EMRS 2.0: Recommended Sample Submission Process in Outbreaks,* here.

4.1.1.1 DATA QUALITY ASSURANCE & QUALITY CONTROL

Data quality assurance and quality control (QA/QC) processes, developed as part of ongoing preparedness, need to be strictly implemented and refined during an FAD incident. The EMRS2 Specialist in the NIMT, other NIMT personnel as appropriate, and other data-entry or disease reporting personnel in the unified Incident Command operationalize the procedures developed for entering data at the ICP.

At the ICG level, further data QA/QC procedures take place, as part of reporting requirements. These are typically conducted by the National Situation Group,

though other personnel may be designated to support these processes as needed. Additionally, both the unified Incident Command and ICG personnel may reach back to EMRS2 Specialists if further assistance or guidance is required in EMRS2.

4.1.2 Pulling Data from the Emergency Management Response System 2.0

4.1.2.1   UNDERSTANDING THE TALLY SHEET

One of the most critical lessons learned of the highly pathogenic avian influenza outbreak of 2014–2015 was the need to have nearly real-time information available for those producing internal and external reports. As such, the EMRS2 Tally Sheet was created to assist in compiling the best-known information at any given point in the response.

The EMRS2 Tally Sheet is essentially a form within EMRS2 used to quickly record, and subsequently download, the best-known information from the incident. The purpose of the EMRS2 Tally Sheet is to provide a centralized location for information—even if not confirmed—to be recorded and used for real-time reporting purposes.

While some fields in the EMRS2 Tally Sheet are linked to the full, relational, EMRS2 database (e.g., premises and investigation), other fields are independent and do not populate from other records. Because the Tally Sheet is set up as a simple form, changing information in the Tally Sheet is quick and easy if new information is provided from the field. This enables preliminary data entry (e.g., date of depopulation complete or date of disposal complete) before the Disease Reporting Officer or other unified Incident Command personnel are ready to complete the full Depopulation Record in the EMRS2 database. Ultimately, the Tally Sheet creates a transparent environment, allowing for streamlined reporting and incident updates at any time.

4.1.2.2   DATA QUALITY ASSURANCE & QUALITY CONTROL

All data between the EMRS2 Tally Sheet and the EMRS2 full database must be reconciled when complete information is available. For example, someone may enter the date euthanasia was completed in the Tally Sheet based on information provided on a conference call. Later, when the full euthanasia record is completed in EMRS2, it may be noticed that euthanasia was actually completed 4 hours later than initially reported. The Tally Sheet is then updated to match the full EMRS2 euthanasia record. This process is typically conducted at routine 24-hour intervals by personnel in the IM Section.

Tally Sheet data entry also helps to minimize changes to EMRS2 records in the full relational database during a fast-paced, rapidly changing incident where there is a large amount of potentially disparate information.

4.1.2.3 USING THE TALLY SHEET

The EMRS2 Tally Sheet is located under Disease Management in the Mitigations Section. A Tally Sheet is broken up into a number of sections, including the initial report/diagnosis, and then sections on euthanasia, disposal, surveillance, indemnity, cleaning, disinfection, and restocking.

As mentioned, the fields linked to the full relational EMRS2 database cannot be changed in the Tally Sheet (e.g., premises, animal business, investigation, Special ID, etc.). If these fields are incorrect they must be changed in the original EMRS2 record where they were first entered.

Individuals producing reports for the ICG rely on the Tally Sheet for current and close to real-time information during an incident. Because the data in the Tally Sheet may be preliminary in some cases, if the full EMRS2 record has not yet been completed, it is always important to note in any report or briefing that data may change as the incident progresses.

The reporting team and those producing maps rely on the Tally Sheet. While the data may be preliminary before it is finalized, the Tally Sheet is the *primary* source for reports, briefings, and maps during an incident due to the ease of downloading a single spreadsheet with nearly all the fields required for any given report.

4.1.2.4 BASIC FIELDS

Many reports depend on the author drawing data directly from EMRS2 or using data from EMRS2 that someone else has pulled into a spreadsheet. The most basic fields of interest include the following (these fields are both in the full EMRS2 database and the EMRS2 Tally Sheet):

- Premises ID

- Referral/Special ID (alternative ID to the Prem ID that can be made public)

- Clinical Signs Start

- Presumptive Diagnosis Date

- Confirmed Diagnosis Date

- Production Type

- Species Group (Animal Business).

- County

◆ Incident Site (State).

Depending on the incident, report authors may need to modify their fields frequently, and at times, pull data from different attributes due to unique or temporary changes made within EMRS2 to adjust to a particular situation or incident. It is best to ask reporting subject matter experts for advice before downloading, analyzing, or reporting from data in EMRS2. Complex reports require a thorough understanding of the information within EMRS2—not just the Tally Sheet— on when and how data are entered, and the flow of the incident response.

4.1.3 Reporting

Both the NIMT/unified Incident Command and ICG issue routine reports. The IMT Situation Reports are usually a collaborative effort, overseen by the Situation Group Leader and the Disease Reporting Officer or designees. These situation reports are typically for ICG and/or APHIS leadership use, and may be distributed to the State Animal Health Official and other personnel in the affected State. They are also important when a transition is being made between NIMTs. These reports are detailed, focusing on the progress of the response, including the status of critical activities, size of the response effort in terms of personnel and animals affected at that location, local maps of the outbreak, and other relevant items. Templates of these reports, and procedures for viewing/exporting IMT sitrep data from EMRS2, are available to NIMT members.

The IM Section in the ICG takes on the bulk of reporting activities in an FAD incident. The IM Section includes both reporting analysts, EMRS2 personnel, and GIS staff. Numerous reports are developed and completed each week by the National Situation Group. These reports may include materials contributed by various other ICG units and groups, such as trade, logistics, and others. As part of these responsibilities, the ICG also may use, analyze, and share information to respond to requests for information from VS or APHIS leadership, States, and any MAC Group that has been established.

APHIS Legislative and Public Affairs (LPA) also work directly with ICG leadership and unified Incident Command to communicate externally. LPA often uses the reports created, or information provided, by the unified Incident Command and ICG to communicate with stakeholders regarding the incident.

4.1.3.1 MAPS & OTHER VISUALIZATIONS OR TOOLS

In addition to reporting, maps (typically GIS products) and other visualizations may be developed to use, analyze, and share the information collected in the field. These types of products are typically created by the ICG IM Section, either the GIS Mapping Cell, National Situation Group, or other relevant groups. Maps with accurate and complete situation information are especially important during an FAD incident where spatial awareness of the situation is critical.

This document does not provide detail on mapping procedures; please contact IMAS in CEAH for mapping processes and further information.

4.1.3.2 DATA QUALITY ASSURANCE & QUALITY CONTROL

Depending on the tempo of an incident, at least one additional person—beyond the report author—from the National Situation Group checks the data and report contents prior to submission to the Deputy NIC.

Even when there are automated linkages—such as the GIS Mapping Cell has created to the EMRS2 Tally Sheet—all products must be carefully checked for quality and accuracy prior to further distribution. During an incident, data entry errors and simple mistakes can easily find their way into reports and other visualizations; as such, it is important to take as much care as possible through standardized procedures to avoid such issues in all steps of the process, from data entry to downloading and manipulating the data to reporting.

4.2 INCIDENT COORDINATION GROUP SITUATION REPORTING

During a response, the ICG uses sitreps as the primary tool to summarize the actions and conditions of an incident. The IM Section, or a designee, is responsible for producing and distributing sitreps and updates. The frequency at which sitreps are released depends on the severity and complexity of the incident, but the NIC or Deputy NIC will determine how often is appropriate. The NIC or Deputy NIC reviews and approves sitreps and other reports before distributing them.

4.2.1 Daily Mini-Situation Report

Depending on the stage of the outbreak and its size and scope, this report may be produced daily or two to three times per week. Usually a "cut-off" time is identified on the report, so that information does not need to be added at the last minute.

When finished, the Daily Mini-Situation Report is distributed as follows:

◆ By email (usually in text of email not in an attached document) from primary point of contact.

◆ Stored/archived on ICG SharePoint site.

4.2.1.1 INFORMATION REQUIRED IN REPORT

This report may contain the following sections as appropriate for the specific FAD incident; it should be as short as possible and to the point:

◆ Status and number of premises and financial information.

◆ Disease detection status, by State.

◆ Table summarizing certain critical activities on premises by State.

◆ Any critical information for leadership.

4.2.1.2   DATA SOURCE

Most of these data are maintained in the EMRS2 Tally Sheet, which should be the primarily source for all situation reports, including the Daily Mini-Situation Report. As needed during the incident, data for this report can also be sourced from States and IMT sitreps, phone calls, and direct communication with States and industry partners during the current outbreak. If data points and information are not the same between these various types of information and the EMRS2 Tally Sheet, it is the responsibility of the National Situation Group in the IM Section to reconcile such inconsistencies. Financial data are managed by the Finance/Admin Section and requested as needed.

Further information is available in Appendix D.

4.2.2 Daily Situation Briefing

The Daily Situation Briefing is an internal update that highlights key situation updates, maps, and figures to summarize the status of the response. This report is formatted as a deck of slides in order to quickly disseminate the latest visual representations of the incident on a daily basis.

4.2.2.1   INFORMATION REQUIRED IN REPORT

The situation briefing will contain the following slides as appropriate for the specific FAD incident:

◆ Map of infected county/counties and State(s)

◆ Summary of the situation, and whether it has changed

  – Confirmed disease detections: dates and locations

◆ Response and recovery status for affected premises

◆ Map of Control Areas

◆ Map of Control Areas and premises response status

◆ Permitting update, including figure depicting numbers of movements

◆ Unified Incident Command deployments

◆ Additional maps as needed that help clarify the incident.

4.2.2.2 DATA SOURCE

Premises data, particularly on presumptive and confirmed Infected Premises, should come from the Tally Sheet. Other data in the daily situation briefing come from States/IMT sitreps, phone calls and other and direct communication, EMRS2, and NPIC or National Situation Group spreadsheets maintained during the outbreak. Maps are created and updated by CEAH.

4.2.3 Weekly Situation Report

This report is typically produced each week. During the peak of the outbreak, this report may be produced more or less frequently, as resources allow, and as requested by the NIC or Deputy NIC. Again, usually a consistent "cut-off" time is assigned for this report, so that information does not need to be added at the last minute: for example, if the report goes out on Friday morning, Thursday at 3:00pm or 4:00pm may be the "cut-off" time for data in the report.

4.2.3.1 INFORMATION REQUIRED IN REPORT

This report will contain the following sections as appropriate for the specific FAD incident:

◆ Situation Overview

– Key status information on premises, dates, animals, funding, and personnel: States affected, dates, totals, depopulation

– Important Updates

– Summary Tables

■ Infected Premises[2]

■ Depopulation numbers

■ Response/recovery status for premises

– Summary epidemiological information

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[2] In all Infected Premises maps, tables, and reports including data on Infected Premises, a decision must be made whether or not to include Dangerous Contact Premises with the Infected Premises or in separate sections/maps. Either option may be appropriate; all sitreps, maps, and illustrations must clearly delineate whether Dangerous Contact Premises have been identified and if they are included/excluded from a given item.

- Status of Control Areas

- State Declarations of Emergency

◆ Operational Updates (to be tailored to the incident, as appropriate)

- Appraisals/Herd or Flock Plans

- Biosecurity

- Surveillance

- Depopulation

- Disposal

- Virus elimination

- Health and safety

- Restocking and recovery

- Permitting/Business Continuity

◆ Administrative (Personnel and Finance) Updates

- Deployment information

- Headquarters personnel (ICG) assignments

- Financial obligations

◆ Logistics and Communications Updates

◆ Planning

- Policy

- Epidemiology & Economic Issues

- Trade

◆ Further information

- Relevant links (e.g., policy and procedures, biosecurity, wildlife information, State websites).

4.2.3.2 DATA SOURCE

Data for this report are sourced from States/IMT sitreps, phone calls and other and direct communication, EMRS2, and NPIC or National Situation Group spreadsheets maintained during the outbreak. The weekly report requires information from sections, groups, and general staff including (but not limited to) Logistics, Planning, Communications, and Finance/Admin. All premises data (including recovery status) should be sourced and maintained in EMRS2.

Further information is available in Appendix F.

4.2.4 Summary List of Infected Premises

This report lists all infected premises by county and by State with specific dates, statuses, and information for the benefit of States and internal stakeholders. The *Daily* and *Weekly* situation reports summarize this information. This report is usually distributed weekly, usually alongside the Weekly Situation Report, though it may be required more frequently at the height of an outbreak.

4.2.4.1 INFORMATION REQUIRED IN REPORT

This report contains a single spreadsheet with the following columns:

- Premises ID

- State

- County

- Identifier/Referral ID (if used, e.g., company name and number, which may need to be removed for external audiences)

- Flock or herd type (commercial/backyard and species)[3]

- # in flock or herd

- Confirmed by NVSL date

- Subtype, if applicable

- Infected Premises Quarantine Date

- Depopulation Complete Date

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[3] The distinction between commercial/backyard premises may be different depending on the species in question. In some cases they may be called "hobby," "non-commercial," or another term rather than backyard.

- ◆ Disposal Method/Status & Date

- ◆ Cleaning & Disinfection Date

- ◆ Control Area Release Date

- ◆ Restock Approval Date

- ◆ Premises Quarantine Release Date.

4.2.4.2 DATA SOURCE

This information is sourced and maintained in EMRS2. When information emerges through NVSL reports, email communication, or teleconferences that is not in EMRS2 or is inconsistent with the data in EMRS2, the National Situation Group and EMRS2 Specialists work to resolve these issues immediately.

Appendix G provides an example of this report.

4.3 SPECIFIC REPORTS

Specific reports provide more detail and data on a specific topic than situation reports. The IM Section is responsible for producing these reports. The frequency at which these reports are produced depends on the severity and complexity of the incident; the NIC or Deputy NIC determine how often is appropriate. The NIC or Deputy NIC typically reviews and approves these specific reports prior to distribution.

4.3.1 Epidemiological Report

The Epidemiology Report provides the epidemiological curves for the outbreak. This helps all responders and stakeholders visualize the number of cases that are occurring over a period of time. This report is typically distributed weekly; parts of it, such as a specific epidemiological curve, may also be requested more frequently by the NIC or Deputy NIC.

4.3.1.1 INFORMATION REQUIRED IN REPORT

This report typically consists of multiple separate epidemiological curves. The number and type of graphs will vary depending on the size and complexity of the incident. For example, graphs may be split out by species or by premises types. In large, multistate outbreaks, it is necessary to split States epidemiological curves out into distinct, individual graphs for each State, or at least States with the largest numbers of detections.

Under each graph, there should be a note indicating the following types of information:

◆ What date is used to construct the epidemiological curve (e.g., date of clinical signs, where available, should be used; however, when not available, a suspect or presumptive positive status can be a proxy).

◆ How many detections, if any, have occurred after the end of the graph: the graph is likely to end on a different day then the report is created (e.g., if today is August 30th, and the graph ends with a complete week on August 27th; note how many detections have occurred between the 27th and the 30th).

◆ Whether the chart includes dangerous contact flocks/herds.

◆ Any other key information that helps readers interpret the graph.

4.3.1.2 DATA SOURCE

Data for this report is sourced and maintained in EMRS2. Note that data in this report may change from week to week, particularly in the event that the "date of clinical signs" is added to a report in EMRS2 or if a presumptive positive case is confirmed as a negative result. The figures in this report rely on extracting data from specific EMRS2 fields into a spreadsheet that the author can use to graph the necessary epidemiological information.

4.3.2 Permitting and Movement Report

The *Permitting Report* provides information on permits and permitted movements during the outbreak. This is an important indication of the quantity and type of products and animals that were able to continue movement, with the appropriate permit, during an outbreak.

This report is distributed bi-weekly; in some cases, as requested by the NIC or Deputy NIC, or as needed for the *Daily* or *Weekly Situation Reports,* specific permit numbers may be requested for specific movements or certain States.

For comprehensive information on permitting during an FAD incident, please see *Permitted Movement (FAD PReP Manual 6-0).*

4.3.2.1 INFORMATION REQUIRED IN REPORT

This report contains multiple graphs; reports will vary in which combinations of the types of graphs, below, are used, depending on the outbreak.

◆ Permits: by State of Origin, State of Destination, Reason for Permit, Reason for Permit AND Item Permitted, and Reason for Permit AND Item Permitted per Destination State

◆ Movements: by State of Origin, State of Destination, Destination State over Time, Movement Reason and Item Moved, Permit Class AND

Movement Reason per Destination State, and State AND Items Moved out of Control Area

◆ Facilities with High-Volume of Movements: by Movement Reason per Facility and Items Moved per Facility Out of Control Area.

4.3.2.2   DATA SOURCE

Permits and movement data are maintained and sourced in EMRS2. These data may be entered by EMRS2 Specialists, or by producers thru the EMRS2 Customer Permit Gateway (these data are reviewed and processed by EMRS2 Specialists).

4.3.3   Deployment Report

This report is based on data/mobilization information entered in EMRS2 for personnel deployed to the incident (both on-site and virtual). Depending on the incident, EMRS2 rotations data may also contain personnel from organizations outside of APHIS, such as other USDA groups (e.g., Agricultural Research Service), other Federal departments (e.g, U.S. Fish and Wildlife Service), as well as State and local contributors. The Deployment Report represents all APHIS responders and may also include personnel from other organizations, depending on the incident.

This report is produced weekly or bi-weekly, based on the request of the NIC or Deputy NIC. Weekly reports are typically preferred when there are many deployments and demobilizations of personnel each week.

4.3.3.1   INFORMATION REQUIRED IN REPORT

This report contains the following sections—primarily represented through figures and graphs:

◆ Current deployments

◆ Total number of deployments

◆ Length of deployments (not including currently deployed)

◆ Deployments by organization and type.

4.3.3.2   DATA SOURCE

APHIS Dispatch receives deployment requests and issues deployments for emergency response personnel utilizing EQS. Deployment reports are generated using data reported in EMRS2 Rotations; these data are verified with the APHIS Dispatch data in EQS.

4.4 MAPS

The maps listed below are those typically produced during an incident. For short-turn around times (e.g., an hour or less), the EMRS2 Advanced Mapping feature is often used to provide the NIC and Deputy NIC with the information they require. For more complex mapping requests, including those maps produced on a daily or weekly basis, the National Situation Group works with the GIS Mapping Cell to produce the necessary maps. It is the responsibility of the National Situation Group to QA/QC both the data (from which the maps are based) and the maps after production and prior to distribution. All maps must have appropriate legends, date/time stamps, title, and any other relevant information.

4.4.1 ICG Maps

ICG maps are used to provide APHIS and State stakeholders with a clear picture of the number of Infected Premises, locations of these premises, and other critical information (e.g., subtype or size of surveillance zone may also be illustrated). These maps also show the progression of the response by indicating quarantine and zone releases. The number and specifics of the map vary by incident.

These maps are often produced daily during the beginning phases of any incident; their frequency may be decreased as the pace of the outbreak slows. Typically, these maps show the following:

- ◆ where each Infected Premises is located on the map: internal maps may have the associated Premises ID or Referral ID on the map; external maps do not have a Premises ID, Referral ID, or any identifying information.

- ◆ a Control Area and/or other zones (e.g., the Surveillance Zone) may also be portrayed around each Infected Premises.

4.4.1.1 INFORMATION REQUIRED

- ◆ All positive premises.

- ◆ Type of premises (e.g., commercial or non-commercial).

- ◆ Subtype/disease confirmed on the premises.

- ◆ Relevant zones (e.g., Control Area and/or other zones, such as the Surveillance Zone).

4.4.1.2 DATA SOURCE

These data are sourced and maintained in EMRS2 (in the Tally Sheet). Information about the size of the Control Areas and other zones can be found in the EMRS2 Advanced Mapping feature; the National Situation Group or designee

also keeps track of the size of the Control Areas as necessary, given the specifics of any given incident.[4]

4.4.2 Standard Map Products

Standard map products include products produced both for the ICG and for other internal stakeholders, including the IMT and Trade Policy/Commodity staffs. The Standard Map products typically include a set of 5-7 maps, but may be more or less depending on incident needs. These maps are typically produced daily or as required by the incident/requested by the NIC or Deputy NIC.

These maps include the following (but may include other maps as dictated by incident needs):

- ◆ Control and Containment Map: this depicts the premises and the Control Area, both (premises and Control Area) are color coded by status.

- ◆ Affected Counties Map: shows counties with Infected Premises for general usage.

- ◆ Stages Map: response and recovery status of each Infected Premises.

- ◆ Trade Map: requested and directed by trade staff.

- ◆ Situation Report Map: requested and directed by the IMT for the IMT situation report.

Standard map products are typically standardized, to the extent possible, prior to an outbreak with IMAS (in CEAH), who creates the standard map products. IMAS (who staffs the GIS Mapping Cell in any outbreak) has a partially automated process to create the products, reducing work time and enabling data to flow from the Tally Sheet into processing for a GIS-based map. Modifications to the standard map products may be required depending on the specific outbreak scenario and disease: these changes are communicated from the National Situation Group to the GIS Mapping Cell.

4.4.2.1 INFORMATION REQUIRED

- ◆ All positive premises (can be separated by flock/herd type or primary operation type).

- ◆ Control Area released (yes/no for each individual premises).

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[4] In some incidents, all Infected Premises may have a standardized, round Control Area; in others, Control Area size and shape may differ.

◆ For the stages map, the most commonly mapped binary (yes/no) statuses: Depopulated, Disposal Complete, Cleaning & Disinfection Complete, and Restock Approved.

4.4.2.2 DATA SOURCE

For the Control and Containment Map, Stages Map, and Affected County Map, these data are sourced and maintained exclusively in EMRS2 (in the Tally Sheet). For the Trade Map, the Trade Group or Commodity Policy staffs indicate their specific needs which may, in some cases, include information not sourced in the Tally Sheet. For the Situation Report Map, the IMT or unified Incident Command will indicate what information they would like in the map; this is typically standardized prior to an incident, but may need modifications to fit a specific response scenario.

4.4.3 Summary Mapbook

The Summary Mapbook is a compilation of maps for a given incident or outbreak. It primarily reflects the location of Infected Premises at the State and county level, detections by species, and other disease-based information. It may be produced weekly or only at the end of an incident, and is suitable for public distribution because it is at the county-level. In an incident, the GIS Mapping Cell creates these maps. The National Situation Group provides a QA/QC function.

4.4.3.1 INFORMATION REQUIRED

Certain incidents or outbreaks may require more or less maps depending on the disease, spread, species affected, etc. The following describes the basic information required for all FAD detections:

◆ Premises ID (n/a for wild animals)

◆ Disease and subtype (if applicable)

◆ Date of NVSL confirmation

◆ Flock/herd type (or primary operation type)

◆ Species affected for commercial premises

◆ County

◆ State.

4.4.3.2 DATA SOURCE

All premises information is sourced from EMRS2, primarily found within the Tally Sheet. Wildlife data are typically captured in a separate spreadsheet since it is not associated with a premises ID in most cases, and may be gathered by organizations other than APHIS.

4.5 INCIDENT COORDINATION GROUP ACTION PLAN

The ICG Action Plan, produced daily, is used to communicate the overall objectives of a response and provide context for operational and support activities. The ICG Action Plan combines two deliverables used previously: the ICG Incident Action Plan and the ICG Incident Action Report.

The ICG Action Plan is produced by the ICG Action Plan group in the National ICG. Each section of the ICG contributes to the ICG Action Plan by updating the ICG on its activities. Depending on the incident, sections may contribute information to the ICG Action Plan in writing or verbally on scheduled ICG teleconference calls for the ICG Action Plan Group to capture and include in the ICG Action Plan.

In particular, the ICG Action Plan should capture elements such as the following:

- ◆ ongoing activities,

- ◆ issues for any section, group, or cell that require resolution,

- ◆ issues from prior action plans that have been addressed and information on those resolutions (these do not stay on the ICG Action Plan indefinitely, but transition off over the course of the daily iterations), and

- ◆ any item, activity, or problem that requires elevation to a MAC Group or other leadership.

Overall, the ICG Action Plan is used to document significant events or actions. It may also serve as a mechanism to assign responsibility of tasks or issues and track their result. While the ICG Action Plan is succinct, it provides critical day-to-day information about the activities of the ICG, documenting how the outbreak response is progressing and support and coordination provided to the field (the unified Incident Command(s)). When the incident concludes, members or sections use the ICG Action Plan for the after-action review session and development of the After-Action Report (AAR).

4.6 OTHER REPORTS AND MATERIALS

4.6.1 Question & Answer

A question & answer (Q&A) is an animal disease- or issue-specific fact sheet that contains questions and answers common to an incident. Both the ICG and unified Incident Command may use the Q&A to disseminate information internally and externally to stakeholders involved in the incident management and response.

4.6.2 Other Incident Coordination Group Section Reports

Other ICG sections may also be responsible for reports, analyses, and deliverables throughout the incident (and after the incident). Examples of this include (but are not limited to) Epidemiologic and Other Analyses (results of epidemiological questionnaires and transmission data), Surveillance Reports (summarized information on surveillance tests conducted), Risk Analyses (methodology and subject as required by the incident), and Resource Reports (information about mobilized resources). These reports may be produced in draft form during the incident, with preliminary data, but may require finalization or additional iterations after the incident. These reports provide important information for internal and external stakeholders and, when completed during the incident, certain reports and analyses are also useful to inform response activities.

4.6.3 Outbreak-Specific Reports

Other outbreak-specific reports may be required depending on the incident. The NIC or Deputy NIC will determine if these specific reports are necessary. Each incident is different; flexibility and scalability is key in producing effective, accurate, and relevant reports.

4.6.3.1 VACCINATION REPORTS

If emergency vaccination is implemented, a separate vaccination report may be requested by the NIC or Deputy NIC or necessitated by the incident. This report would draw data from EMRS2 and include information on the species, production type, and number of animals that have been vaccinated. It may also describe plans for continued vaccination if the outbreak progresses, including protective vaccination of at-risk and susceptible animals. The report would potentially further outline the number of States that are vaccinating animals, as well as the doses of vaccine distributed to those states.

4.6.3.2 CONVEYANCE REPORTS

Reports on conveyance tracking may be needed—conveyances are those movements that are tracked, but not permitted. This information would be distributed separately from the Permitting Report. The Conveyance Report would

provide statistics on conveyances from EMRS2, such as what relevant animal or animal-business products have been moved into or out of the Control Area, and where those movements originated or are destined, by State.

Chapter 5
Information Management & Reporting After an Incident

5.1 POST-INCIDENT REPORTING

At the conclusion of an FAD incident or outbreak, VS conducts an evaluation process to capture the events and actions that occurred during the incident.[1] Typically, two primary products are produced by the ICG, though their scope and detail vary depending on the nature of the incident: a final outbreak report and an AAR. The final outbreak report details the "who, what, why, when, and where," summarizing much of the incident data, while the AAR focuses on the lessons learned, challenges, and successes of the incident. Both reports are critical to document the incident and improve preparedness and response planning for FADs. Post-incident reporting is often comprehensive; it is of the utmost importance that the data in both the final report and the AAR is accurate and based on the best available information.

5.2 FINAL REPORT

Following the conclusion of an FAD incident, personnel—usually from the National Situation Group—write a comprehensive report on the outbreak. This document discusses all response actions from the field level, to headquarters/ICG, to any MAC Group, to leadership or higher-level action. It also provides final, summarized data on all critical activities, including number of premises, methods of depopulation, methods of disposal, number of permits and movements, and the time lag between laboratory confirmation and selected critical activities.

This report is produced once after each incident. Every attempt is made to ensure that all information in the report is accurate to the extent possible: comprehensive quality control measures are taken by the National Situation Group to confirm all existing data in other reports (such as those discussed in Chapter 4). However, occasionally errors are identified after report distribution or additional information may need to be added to the report, requiring revision of the final report.

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[1] The end of an incident may be signified by the release of all Control Areas, the end of APHIS personnel deployments, the end of response activities, the restock approval of all previously Infected Premises, or some combination thereof. The NIC typically determines what indicates that the incident has concluded and end-of-incident reporting can begin.

The final report goes through internal and external review. Internally, relevant ICG groups may be asked to contribute information or read sections of the report. VS Leadership may also request to review the report. The level and extent of review typically relates to the size and the scope of the incident.

Externally, affected States are typically provided the report and asked for corrections or desired edits. The intention of the final report is to be as objective and transparent as possible. APHIS LPA also reviews and approves the final report prior to distribution on the public website (www.aphis.usda.gov/fadprep).

5.2.1 Content

For most incidents, the final report will be broken up into multiple sections. A typical framework is as follows:

- ◆ Background: describing the nature of the disease and prior outbreaks in the United States, if any.

- ◆ Characteristics of the outbreak: providing information on overall case numbers, epidemiological data, and any known information on introduction and transmission.

- ◆ Overview of the response: discussing the regulatory intervention at the State and Federal level, financial resources expended, and the economic impact (as best known at the time).

- ◆ Incident management: describing the incident's organizational structure from the field to the ICG to any MAC Group or higher-level USDA involvement, including APHIS personnel deployments to the incident.

- ◆ Response activities: stepping through highlights and summarized data of response activities, from surveillance to restocking, as well as IM and communication.

- ◆ Preparedness/future planning: noting any corrective actions that were implemented during the incident and any meetings that have occurred or are planned.

- ◆ Conclusion: summary of the incident in a quick and easy to read few pages.

5.2.2 Audience

The final report is an important historical record for both internal and external stakeholders. If there is information in the report that is not suitable to be shared publicly, then one final report is produced for APHIS and another "public version" of this final report is produced for States and published online. This

occurs when there may be small numbers of premises or other State-sensitive information. In these instances, it is important to remove identifying data and have two versions. Any report published on the website (www.aphis.usda.gov/fadprep) has been approved for distribution by LPA.
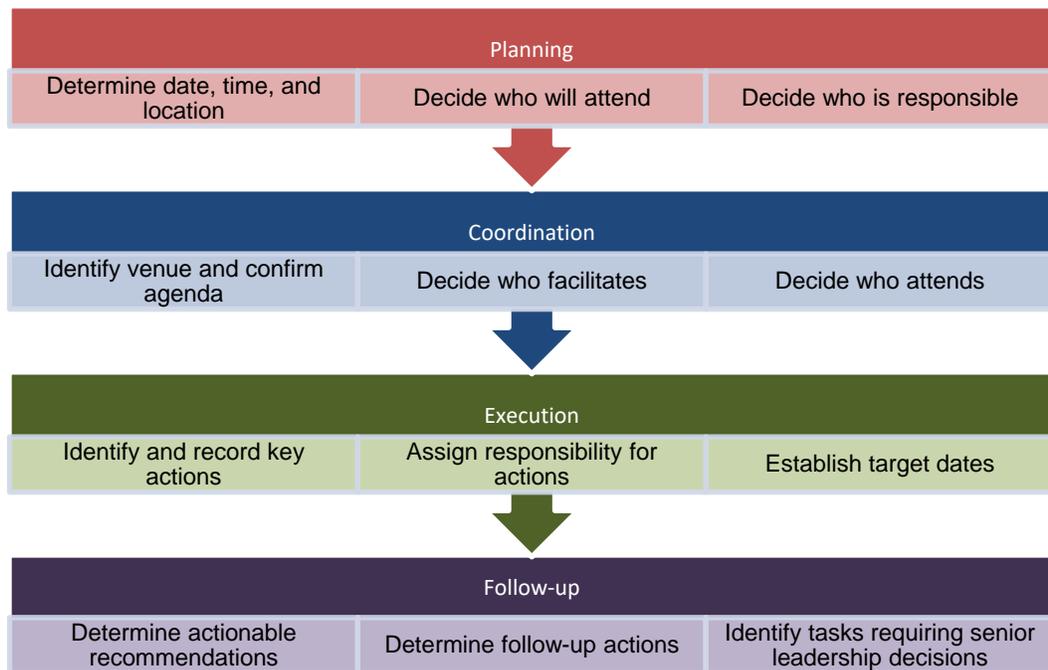
5.3 AFTER-ACTION REVIEW & REPORT

At the conclusion of an incident or outbreak, the Lessons Learned/After-Action Group in the IM Section conducts a post-incident process to capture lessons-learned for future incidents. Traditionally, this process includes two methods: the after-action review and an AAR. The AAR captures the results and information gathered in the after-action review (commonly referred to as a 'hot wash') and data from other collection methods such as responder surveys, interviews, and other means that are appropriate for a given incident. The AAR serves as an important historical record of the incident and also can provide a framework and specific areas of focus for a corrective action program and/or training and exercise priorities.

5.3.1 After-Action Reviews

After-action reviews, commonly referred to as 'hot washes', are interactive discussions normally occurring immediately after an incident in an open forum. The process involves four interrelated steps: planning, coordination, execution, and follow-up. Figure 3-1 shows the after-action review process.

Figure 3-1. After-Action Review Process

Planning		
Determine date, time, and location	Decide who will attend	Decide who is responsible

Coordination		
Identify venue and confirm agenda	Decide who facilitates	Decide who attends

Execution		
Identify and record key actions	Assign responsibility for actions	Establish target dates

Follow-up		
Determine actionable recommendations	Determine follow-up actions	Identify tasks requiring senior leadership decisions

After-action reviews provide a venue for APHIS leadership, affected States, and industry participants to openly and honestly discuss the issues and problems encountered during the incident. The ICG uses this approach after the incident has concluded: the goal is to encourage candid dialogue and elicit frank responses from all participants. The keys to a successful after-action review are

◆ selecting a good facilitator;

◆ describing the overall objective (what was planned);

◆ documenting what actually happened;

◆ discussing the key issues, both successes and failures, and what needs improvement; and

◆ summarizing the key points of the session, including what the organization can do better the next time.

Depending on the size and scope of the incident, there may be one large hot wash, many smaller hot washes, or some variation of the two. For example, each section or branch of the ICG may each hold their own hot wash, with an additional hot wash for the entire ICG. Field personnel may also break up into relevant groups for hot washes. Hot washes are a critical source of information for the AAR; however, other sources of information are also important and may include responder surveys, interviews, and other means of data collection. The Lessons Learned/After-Action Group in the ICG administers these tools during the after-action review. Once executed, the analyzed data are used to generate recommendations in the AAR.

5.3.2 After-Action Reports

The AAR itself is based on the after-action review and the other data collected after the incident has concluded. It is frequently organized by critical activity (e.g., IM, biosecurity, depopulation, disposal, etc.), though some modifications may be required based on the incident. The AAR documents what went well, what did not work, and what needs improvement. An AAR has four main purposes:

◆ Identify the main issues, such as the strengths and weaknesses, in the current incident management response plans.

◆ Make key findings and recommendations to improve them.

◆ Capture key lessons learned.

◆ Provide for a corrective action improvement plan.

In some cases, after-action review and AAR are used interchangeably; however, perhaps the most important distinction between the two is that the AAR is a more comprehensive, deliberate, and explicit process. While after-action reviews occur immediately after an incident, involve immediate staff participation, and may last from several hours to all day, the AAR process may take many weeks to allow the staff and incident participants sufficient time to document lessons-learned and develop tangible and actionable recommendations. These recommendations, and the AAR itself, may also require leadership review, concurrence, and/or approval. The final AAR is typically an internal APHIS document, since its purpose is to identify lessons learned and areas of improvement for VS.

Appendix A
Abbreviations

AAR	After-Action Report
ADT	Animal Disease Traceability
AgLearn	Agricultural Learning System
AHPA	Animal Health Protection Act
APHIS	Animal and Plant Health Inspection Service
CEAH	Center for Epidemiology and Animal Health
CFR	Code of Federal Regulations
EDI	emerging disease incident
EMRS2	Emergency Management Response System 2.0
EMSSD	Emergency Management Safety & Security Division
EQS	Emergency Qualifications System
FAD	foreign animal disease
FAD PReP	Foreign Animal Disease Preparedness and Response Plan
GIS	geographical information system
HL7	Health Level 7
HPAI	high pathogenicity avian influenza
ICG	Incident Coordination Group
ICP	Incident Coordination Plan
ICS	Incident Command System
ID	identification
IM	information management
IMAS	Information Management and Analytic Services
IMT	Incident Management Team
IT	information technology
LIMS	Laboratory Information Management System
LMS	Laboratory Messaging Services
LOINC	Logical Observation Identifiers Names and Codes
LPA	Legislative and Public Affairs

MAC	Multiagency Coordination
MIM	mobile information management
NAHEMS	National Animal Health Emergency Management System
NAHLN	National Animal Health Laboratory Network
NFC	National Finance Center
NIC	National Incident Coordinator
NIMS	National Incident Management System
NIMT	National Incident Management Team
NPIC	National Preparedness and Incident Coordination Center
NRF	National Response Framework
NVSL	National Veterinary Services Laboratories
OIE	World Organization for Animal Health
PDS	Professional Development Services
PIN	premises identification number
QA/QC	quality assurance/quality control
Q&A	question & answer
SNOMED	Systematized Nomenclature of Medicine
SPRS	Surveillance, Preparedness, and Response Services
STAS	Science, Technology, and Analysis Services
SOP	standard operating procedure
TEP	Training and Exercise Program
U.S.C.	Code of Laws of the United States of America
USDA	U.S. Department of Agriculture
VS	Veterinary Services

Appendix B
Example National Incident Coordination Group Structure

Figure B-1. Example National Incident Coordination Group Structure
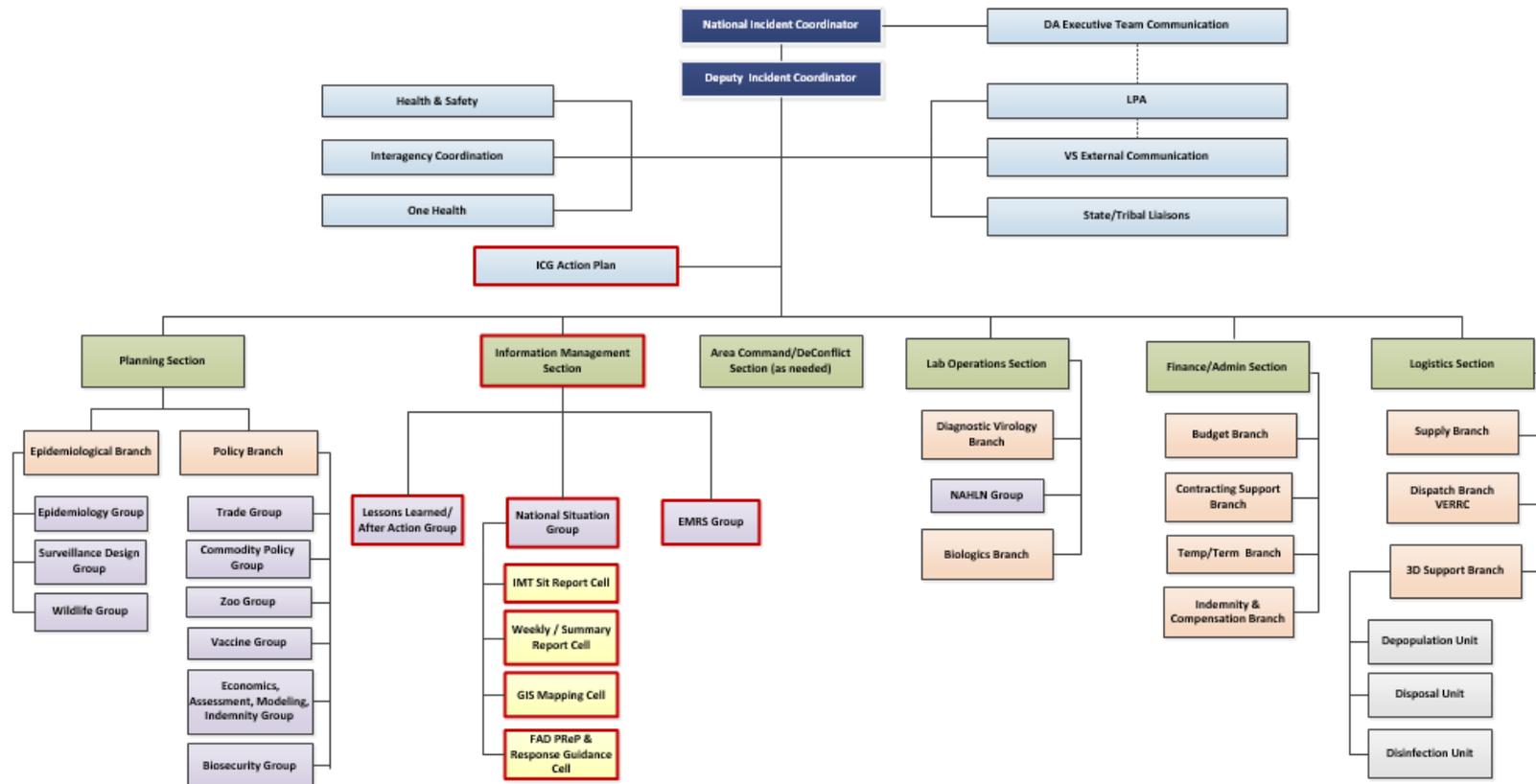
Note: The Information Management Section, highlighted in red, is predominately responsible for producing routine incident reports. However, other Sections and Branches make important contributions to the content of these reports and may also be responsible for other deliverables during an FAD incident.

Appendix C
Example Overview Emergency Management Response Systems 2.0 Workflow

Figure C-1. Emergency Management Response System 2.0 (EMRS2) Workflow
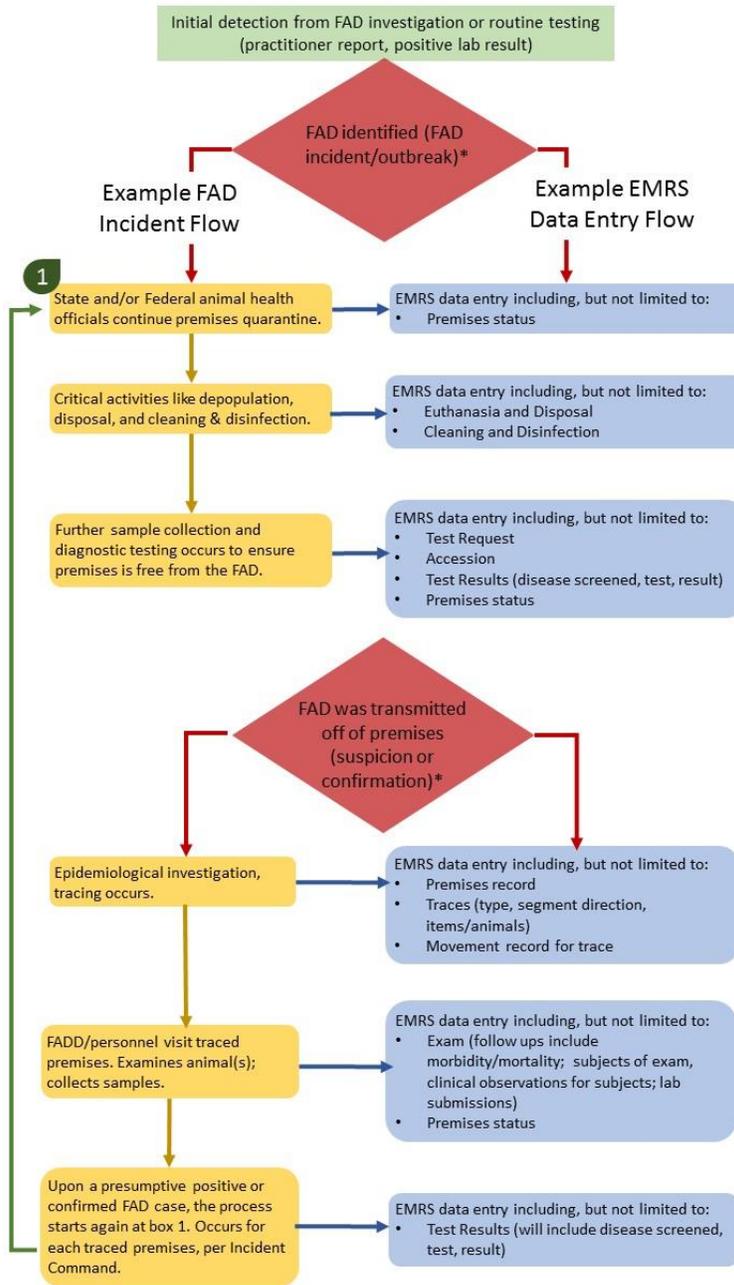
Appendix D
Sample Daily Mini-SITREP Template

Figure D-1 shows a daily mini-SITREP template similar to one produced during a recent HPAI outbreak in the United States. This sample contains many of the same components needed for a report during any FAD incident response, but the amount and type of information presented may be vary by the specific incident.

Figure D-1. Sample Daily Mini-SITREP

This information is typically pasted in an email, not sent as a separate document.

Information for APHIS
[Insert Name of APHIS Leadership], [Insert Title of APHIS Leadership]
[Month DD, YYYY]

Issue: APHIS update on [*insert disease*]

Action needed: [insert]

[Numbers that change frequently and need to be updated daily in red. However, entire information should be reviewed each time it is sent. First mini report should be in all black. Subsequent reports—please leave items that have changed in red for easy recognition].

[insert disease & edit as appropriate] detections in commercial, backyard, or captive wildlife sectors [edit these as appropriate] since [Month DD, YYYY]:

- APHIS confirmed [insert disease agent] in a [insert herd/flock type and species] in [County, State] on [Month DD, YYYY].
    - The total number of confirmed premises is [#].
    - No positive or presumptive positive premises have been identified since [Month DD, YYYY].
    - [Status of depopulation activities on positive premises--# of # premises complete].
    - [Status of virus elimination on positive premises--# of # premises complete].
    - [Status of quarantines, if any released--# of # premises quarantines have been released].
    - [Insert date of Control Area placement and release, as applicable].

Financial Status

[Indicate where funding is coming from for indemnity and response operations].

Total commitments for indemnity *plus* obligations for all [insert disease agent] response operations on positive premises as of [Month DD, YYYY]: **[INSERT $ FIGURE HERE]**

- Total indemnity commitment based on signed indemnity forms: **[INSERT $ FIGURE HERE]**
- Total indemnity paid to date: **[INSERT $ FIGURE HERE]**
- Obligations for response operations to date: **[INSERT $ FIGURE HERE]**

[Insert Disease Agent]-Related Trade Issues

- APHIS sent the initial notification to OIE on [Month DD, YYYY].
- Follow-up reports have been sent regularly as required.
- [Explain status of trade issues – example follows]: Trading partners reacted similarly as to the [insert recent outbreak if comparable], with those countries that had restrictions in place on the entire United States maintaining those restrictions. These include [insert countries]. Assuming there are no further findings of disease associated with this outbreak, in accordance with OIE guidelines [if OIE recognizes official freedom for disease] the area will regain free status [Month DD, YYYY], and trading partners and OIE will be notified at that time.

[YYYY] Detections by State and County

State	County	Herd/ Flock Type	# in Herd/Flock	Confirmation Date	Infected Premises Quarantine Date	Depopulation Complete Date	Owner/ Company

[Insert any Wild Animal Surveillance Information]

- Total number of samples tested since [Month DD, YYYY]

State	County	Species	Collection Date	Disease	Confirmation Date

Appendix E
Sample Daily Briefing

Figure E-1 shows a sample Daily Briefing presentation based on one produced during the 2017 HPAI/LPAI outbreak in the United States. This sample contains many of the same components needed for a report during any FAD incident response, but the amount and type of information presented may be vary by the specific incident.

Figure E-1. Sample Daily Briefing

HPAI Infected County, TN

HPAI 2017 High Path Avian Influenza All Affected Counties

As of 4/5/2017

2
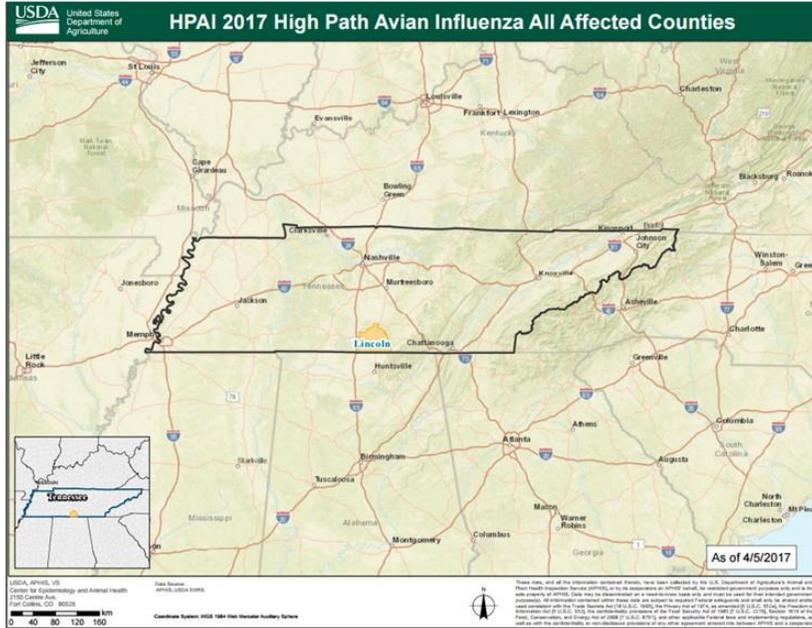
Summary of HPAI Situation (Unchanged)

➢ **Confirmed** HPAI detection in Lincoln County, Tennessee.
 – H7N9 of North American wild bird lineage confirmed.
 – [Number of affected birds, flock type].
 – Confirmed diagnosis on March 4, 2017.
 – Depopulation was completed on March 5, 2017.
 – Disposal was completed on March 8, 2017.

➢ **Confirmed** HPAI detection, also in Lincoln County, Tennessee.
 – H7N9 of North American wild bird lineage confirmed.
 – [Number of affected birds, flock type].
 – Confirmed diagnosis on March 15, 2017.
 – Depopulation was completed on March 17, 2017.
 – Disposal was completed on March 17, 2017.

3

HPAI Response and Recovery Status for Confirmed H7N9 HPAI

➤ **[Name] Premises**

- Depopulation has been completed.
- Disposal has been completed.
- Virus elimination activities are ongoing.
- Control Area remains in place.

➤ **[Name] Premises**

- Depopulation has been completed.
- Disposal has been completed.
- Virus elimination activities are ongoing.
- Control Area remains in place.

4

HPAI Control Areas*
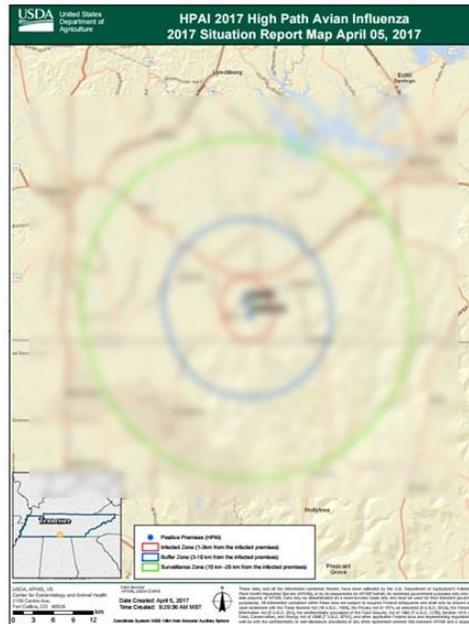
HPAI 2017 High Path Avian Influenza
2017 Situation Report Map April 05, 2017

*LPAI detections in the HPAI Control Areas not shown; please see subsequent slides for additional maps.

5

HPAI Control Areas & Response Status*
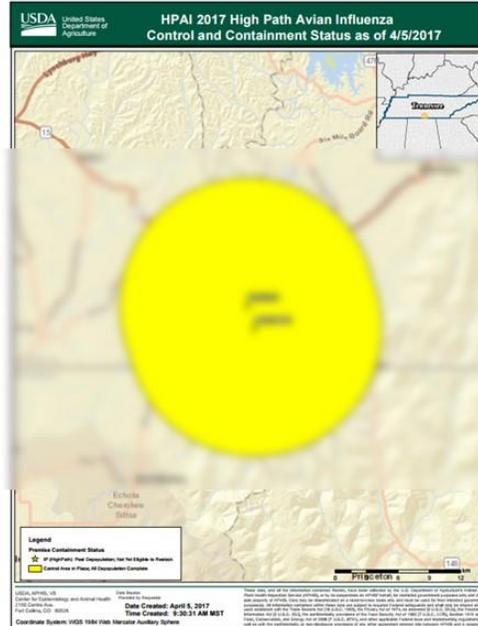
HPAI 2017 High Path Avian Influenza
Control and Containment Status as of 4/5/2017

➢ *LPAI detections in the HPAI Control Areas not shown; please see subsequent slides for additional maps.
➢ All depop complete, Control Areas in place.

6

HPAI Permitting

➢ Permitting activities continue successfully from the Control Areas in TN.
➢ Permitting is being conducted through EMRS2 and the EMRS2 Customer Permit Gateway.
➢ Over the course of the response, there have been 19 approved permits.
➢ There have been 87 distinct permitted movements completed (pictured below).
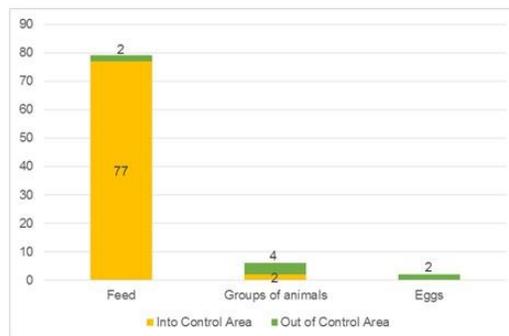
7

Unified Incident Command Deployments*

➢ 34 personnel currently deployed from APHIS (4 virtual).

➢ TN and AL personnel are part of the unified Incident Command; personnel from other States with LPAI detections are also responding in their respective State.
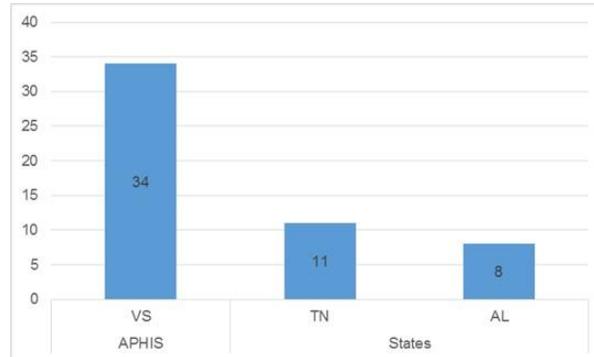
* This is the information in EMRS2 right now. It may be updated/changed at any time. This does not include personnel supporting the National Incident Coordination Group.

8

Summary of LPAI Situation (Confirmed & Presumptive)

➢ Three (3) confirmed H7N9 LPAI detections.
  – Giles County, TN
    o All surveillance has been completed, surveillance zone released.
    o [flock type]
    o [depopulation update]
  – Cullman County, AL.
    o [flock type]
    o [depopulation update].
  – Jackson County, AL.
    o All surveillance has been completed, surveillance zone released.
    o [flock type].
➢ One (1) confirmed H7 LPAI detection.
  – Madison County, AL: [flock type].
    o All surveillance has been completed, surveillance zone released.
➢ Four (4) confirmed H7N9/presumptive LPAI detections.
  – Pickens County, AL: [flock type]
  – Christian County, KY: 2 [flock types].
  – Chattooga County, GA: [flock type].
➢ Four (4) confirmed H7/presumptive LPAI detections.
  – Lauderdale County, AL: [flock type].
    o All surveillance has been completed, surveillance zone released.
  – Madison County, AL: [flock type].
  – Lincoln County, TN: 2 [flock type].

9

Summary of LPAI Situation (Confirmed & Presumptive)

Number Positive	Current Premises Status	County	State	Production Type
3	Confirmed H7N9 LPAI detection	Giles County	TN	
		Cullman County	AL	
		Jackson County	AL	
1	Confirmed H7 LPAI detection	Madison County	AL	
4	Confirmed H7N9/ Presumptive LPAI detection	Pickens County	AL	
		Christian County	KY	
		Christian County	KY	
		Chattooga County	GA	
4	Confirmed H7/ Presumptive LPAI detection	Lauderdale County	AL	
		Madison County	AL	
		Lincoln County	TN	
		Lincoln County	TN	

10

Visualizing LPAI Confirmed and Presumptive Cases*
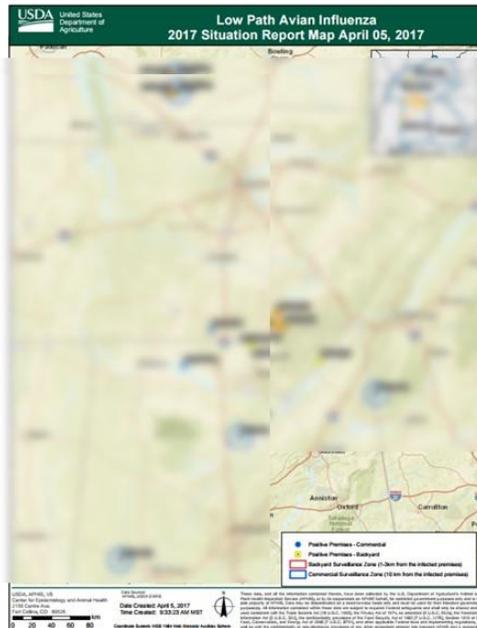
- ➢ *Please see map legend for more information on prem status.
- ➢ BY premises – [size, in k, of surveillance zone].
- ➢ Commercial premises – [size of surveillance zone].
- ➢ Closed surveillance zones (surveillance complete) are not pictured.

11

Visualizing ALL HPAI and LPAI Confirmed and Presumptive Cases*
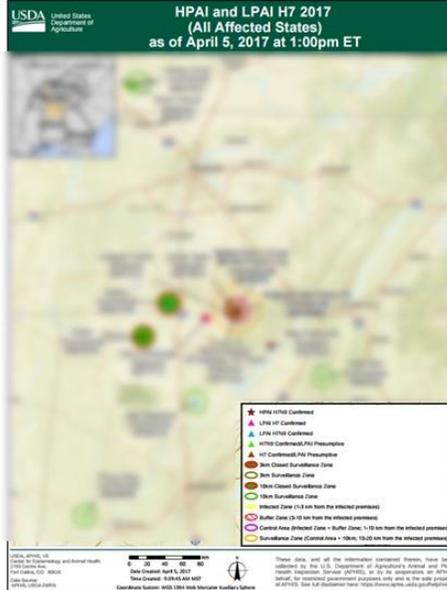
➢ *Please see map legend for more information on prem status.

➢ BY premises – [size of surveillance zone]

➢ Commercial premises – [size of surveillance zone]

Zooming in on TN, AL & GA ONLY HPAI and LPAI Confirmed and Presumptive Cases*
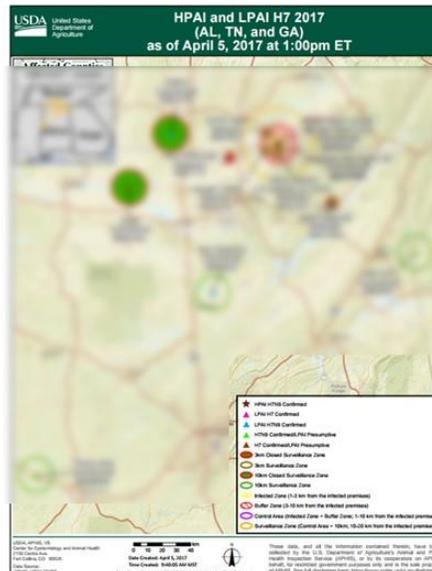
➢ *Please see map legend for more information on prem status.

➢ BY premises – [size of surveillance zone]

➢ Commercial premises – [size of surveillance zone]

Appendix F
Sample Weekly SITREP Template

Figure F-1 shows a sample weekly SITREP based off one produced during the 2014–2015 HPAI outbreak in the United States. This sample contains many of the same components needed for a report during any FAD incident response, but the amount and type of information presented may be vary by the specific incident.

Figure F-1. Sample Weekly SITREP Format

USDA **United States Department of Agriculture**

FAD Outbreak
Weekly National Situation Report

FOR OFFICIAL USE ONLY—NOT FOR FURTHER DISTRIBUTION

To: VS and State Animal Health Officials
Date Transmitted: [date] (data reported through [previous day] 5 pm ET)

I. Situation Overview

A. <u>Key Information [Description of the issues of most importance and that require resolution or monitoring]</u>

- Number of premises positive: [*Number and trend, such as "no change from [date] report"*]

- Number of premises quarantined: [*Number*][*Describe trend, such as "up X from [date] report"*]

- Number of premises depopulated: [*Number*][*Describe trend, such as "up X from [date] report"*]

- Animals depopulated to date: [*Number*]
- Premises waiting to be depopulated: [*Number*]
- Counties with positive premises: [*Number*]
- Emergency funding paid: [*Number*]
- APHIS Mobility Level [*Number*]
- Personnel deployed:
  - Federal: [*Number*]
  - State: [*Number*]
  - Industry: [*Number*]
  - Contractors: [*Number*]

B. <u>Important Updates</u>

Significant points of progress or news in the response since the previous week's report.

1

C. <u>Summary of Positive FAD Detections</u>

Table 1. Example Status of NVSL-confirmed positive and presumptive positive premises

State	Total Commercial Positive Premises	Herd/Flock Type			Positive Backyard Premises
		Animal Type 1	Animal Type 2	Other	
Minnesota	X	X	X	X	X
Iowa	X	X	X	X	X
South Dakota	X	X	X	X	X
Wisconsin	X	X	X	X	X
Nebraska	X	X	X	X	X
California	X	X	X	X	X
Missouri	X	X	X	X	X
Washington	X	X	X	X	X
Oregon	X	X	X	X	X
Montana	X	X	X	X	X
Idaho	X	X	X	X	X
Indiana	X	X	X	X	X
Totals	0	0	0	0	0

Figure 1. Example Epidemiological Curve
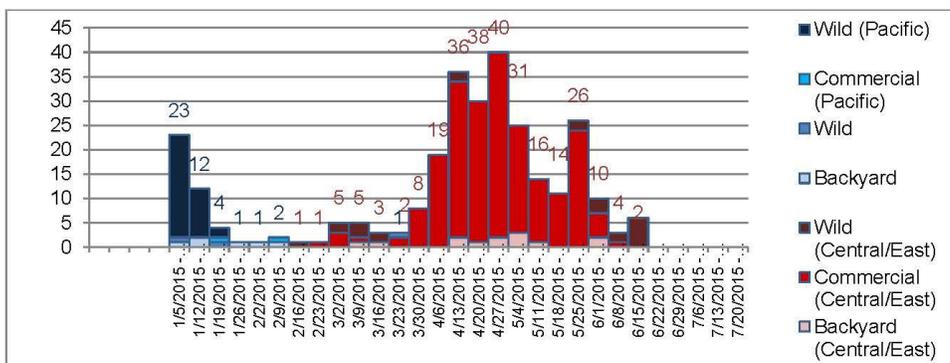
- Number of Control Areas remaining and released: [*Number, location*]

D. <u>State Declarations of Emergency</u>

- States that have declared they are operating under a State of Emergency: [*List*]

II. Operational Updates

A. <u>Biosecurity</u>

B. <u>Depopulation</u>

C. <u>Disposal & Recovery</u>

2

D. <u>Permitting/Business Continuity</u>
  - Permits authorized: [*Number*]

III. Administrative (Personnel & Finance) Updates

A. <u>Incident Management Teams</u>
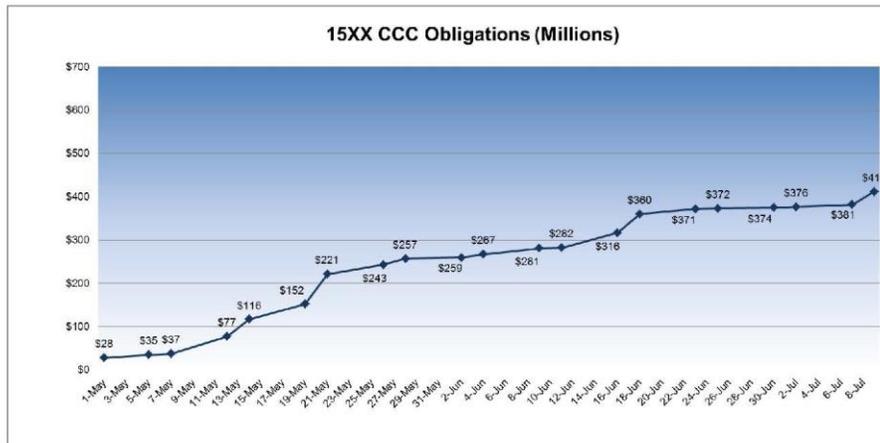 - Dates deployed

B. <u>Field Personnel</u>
  - Status of National Animal Health Emergency Response Corps (NAHERC) and other APHIS personnel

C. <u>Financial & Obligations Status</u>
  - Figure shows the running total of all commodity credit corporation (CCC) obligations for this outbreak.

Figure 2. Example CCC Obligations

15XX CCC Obligations (Millions)

IV. Logistics

This week, logistics center activities include the following:

V. Planning

A. <u>Policy</u>

3

B. **Epidemiology & Economic Issues**

C. **Trade**

Trade issues include the following:

- [*Name of country*] had placed a ban on [*name of commodity*] from [*name of place, such as "the state of X"*].
- [*Name of country*] had placed a ban on [*name of commodity*] from [*name of place*] for [*period, such as "up to 12 months"*]. Details are as follows:
  - o A ban, retroactive to [*date*] has been placed on an area within a [*x*]-kilometer radius of the outbreak premises.
  - o [*Name of commodity*] is banned for [*X*] months; on [*date, including year*] it will again be eligible for export to [*name of country*].
  - o [*Name of commodities*] are banned for [*X*] months
- Effective [*date, including year*], the [*name of entity, such as "the European Union"*] has placed a ban on the entire United States for the following commodities: [*commodities*].

- _____ is continuing to work with foreign counties to address their questions and concern regarding the [*name of FAD*] situation in [*name of state*].

VI. Communications

- Discuss planned calls and/or meetings.

VII.　　　For Further Information

- All current USDA policy and procedures posted on USDA APHIS: http://www.aphis.usda.gov/fadprep.
- Incident specific health and safety information is also posted at http://www.aphis.usda.gov/fadprep.

4

Appendix G
Sample Summary of Infected Premises

This report is simply a list of all infected premises, by county and by State, with specific dates and information. This report was requested due to the interest in knowing the status of specific premises by States and internal stakeholders. The *Daily* and *Weekly* situation reports summarize information found in this report.

Figure G-1. Sample FAD Summary of Infected Premises

USDA United States Department of Agriculture

State	County	Flock Type	# in Flock/Herd	Date Confirmed by NVSL	Infected Premises Quarantine Date	Depopulation Complete Date	Disposal Method/ Status & Date	Cleaning & Disinfection Date	Control Area Release Date	Eligible for Restocking
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X