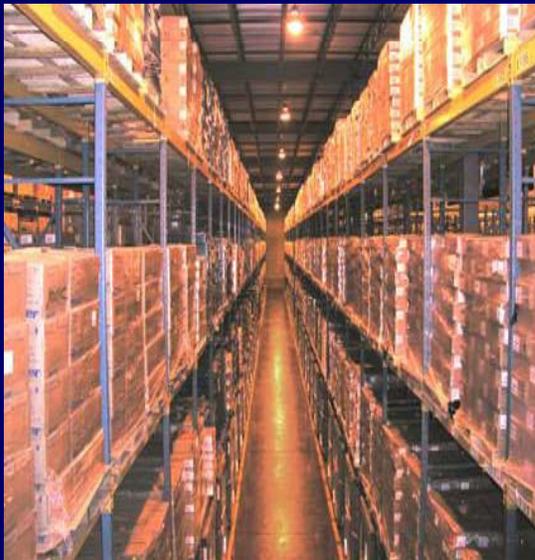




Animal and Plant Health Inspection Service U.S. Department of Agriculture

National Veterinary Stockpile

** Science-Based Logistics Improving Disease Response **



Presentation Outline

- Background – HSPD9¹
- Mission/goals
- Threats
- Organization
- Countermeasures and response
- Challenges that remain

¹ Homeland Security Presidential Directive 9

Background



- Established by Homeland Security Presidential Directive 9 (HSPD9) in 2004 to protect the nation's food supply, public health, and the economy
- Reflects the national concern that terrorists could create a catastrophic outbreak far worse than the United Kingdom's 2001 foot-and-mouth disease (FMD) outbreak that cost \$16.7B and resulted in the depopulation of 10 million animals

Background

- Hold sufficient amounts of animal vaccine, antiviral, or therapeutic products to appropriately respond to the most damaging animal diseases affecting human health and the economy
- Deploy within 24 hours of an outbreak.
- Leverage where appropriate the mechanisms and infrastructure that have been developed for the management, storage, and distribution of the Strategic National Stockpile

Mission/Goals

- Deploy countermeasures against the 17 most damaging animal disease threats within 24 hours
- Help states/tribes/territories plan, train, and exercise the receipt, processing, and distribution of NVS countermeasures during a disaster

Countermeasures

- Supplies
- Equipment
- Test kits
- Antivirals
- Vaccines
- Response support services

Threats



1. High Pathogenic AI (F)
2. Foot-and-Mouth Disease
3. Rift Valley fever (F)
4. Exotic Newcastle Disease
5. Nipah and Hendra virus (F)
6. Classical swine fever
7. African swine fever
8. Bovine spongiform encephalopathy (?)
9. Rinderpest
10. Japanese encephalitis (F)
11. African horse sickness
12. Venezuelan equine (F) encephalitis
13. Contagious bovine pleuropneumonia
14. Ehrlichia ruminantium (Heartwater)
15. Eastern equine encephalitis (F)
16. Coxiella burnetii (F)
17. Akabane virus

Zoonotic diseases: (F) fatal, (?) possible

Management Structure



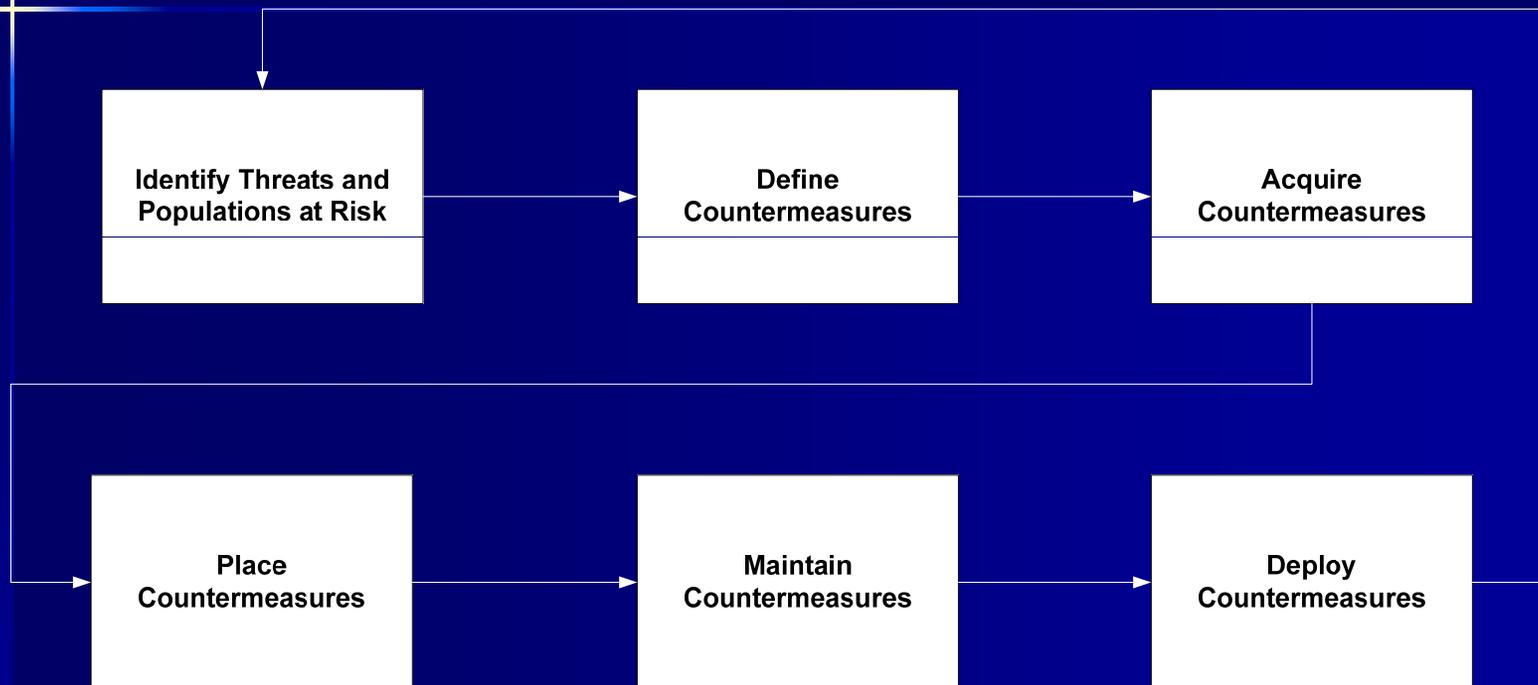
Organization



Input From Scientific Experts



Business Processes



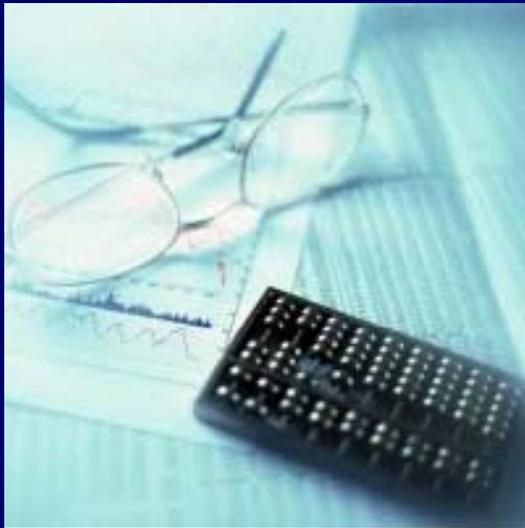
Defining Countermeasures

What's Considered

- Threats (diseases or agents including vectors) that exist
- Importance of each threat
- Research, surveillance, epidemiology, economic issues, and policy associated with each threat
- Size, location, and characteristics of animal populations at risk

Defining Countermeasures

What's Considered



- Response time and duration for countering threats
- Life-cycle costs (costs of purchase + storage + maintenance + replenishment + shelf life extension + disposal)

Purchasing Countermeasures

- Critical items the NVS holds: what responders need immediately and are unavailable from the commercial sector
 - Owned by NVS
 - Managed by NVS
 - Example: PPE in 24 hour push packages
- Critical items that vendors hold: items vendors must process before use or can rotate to reduce the cost of expiration
 - Owned by NVS
 - Managed by vendors
 - Examples: HPAI vaccine for genetic stock, CSF vaccine

Purchasing Countermeasures

- Guaranteed access to critical items: items that vendors hold and are bought when needed to save holding costs of storage, management, and expiration.
 - Owned by vendors
 - Managed by vendors
 - Accessed by NVS
 - Examples: HPAI vaccine for day old chicks, CSF vaccine, FMD vaccine (potentially)
- Guaranteed access to critical services: contracts for indefinite delivery, indefinite quantity
 - Emergency transportation
 - 3D (depopulation, disposal, decontamination)
 - commercial responders

Placing Countermeasures

- Secure locations near major transportation hubs
 - provide proximity to outbreaks for faster deployment and
 - reduce the risk that weather, sabotage, or other problems could prevent deployment

Maintaining Countermeasures

- Ensure proper environmental conditions
- Support rapid deployment (e.g. kitting)
- Rotate and extend shelf-life to minimize costs of sustaining countermeasures
- Service and maintain equipment

Deploying Countermeasures

- Kit products for rapid issue
- Configure, pack, label shipments for rapid access by States
- Transport 7/24 by air and ground for arrival within 24 hours
- Manage using headquarters and mobile logistics teams



OUTREACH

**Helping States
Receive, Process, Manage &
Distribute the NVS**

Receive

Alabama



Louisiana

Mississippi



Store

Louisiana



Alabama

Mississippi



Pick and Stage



Louisiana

Mississippi

Alabama



Manage Warehouse Inventory

Louisiana



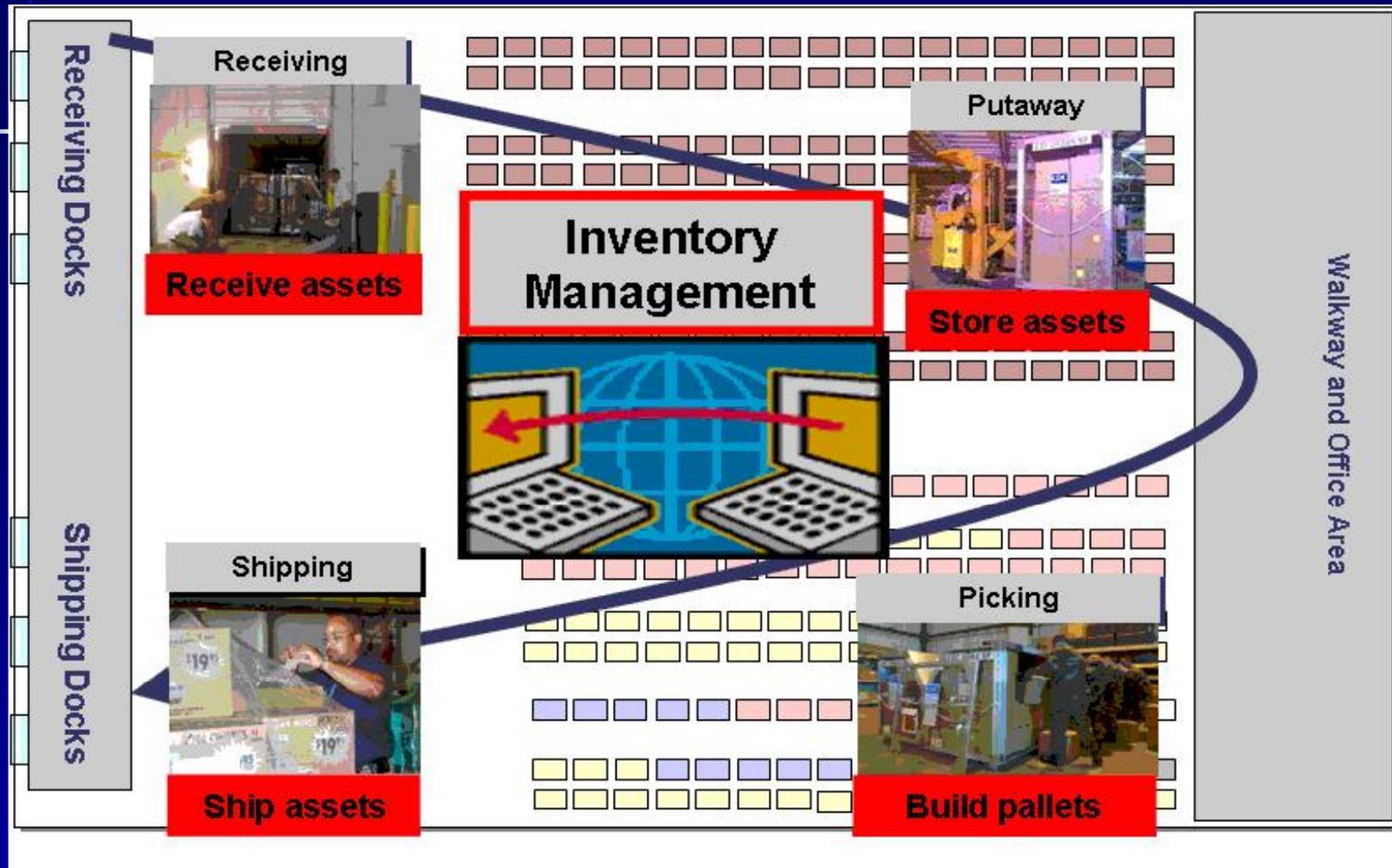
Mississippi



Alabama

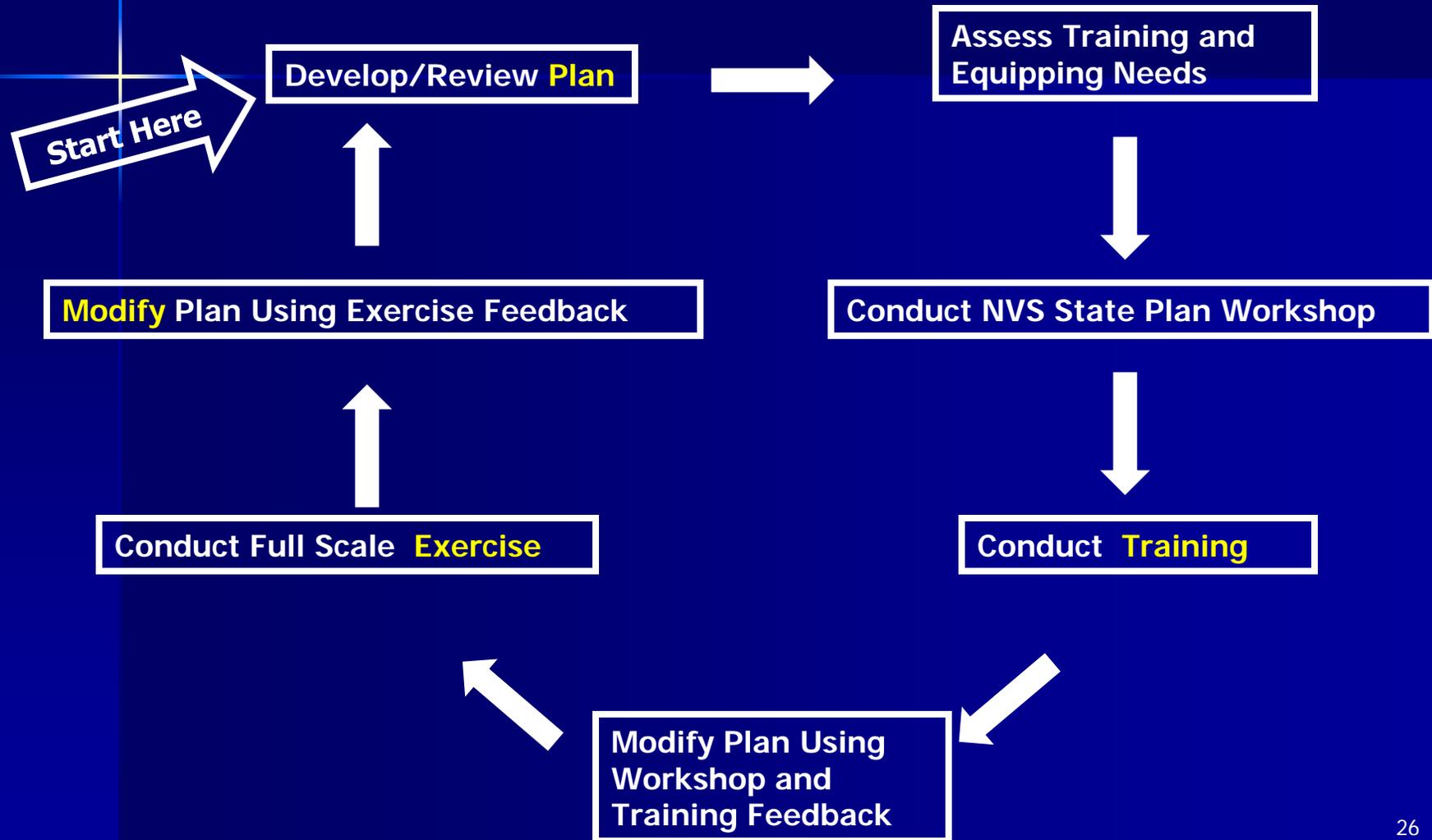


Warehouse Management



Source: Division of Strategic National Stockpile, CDC

NVS/NIMS Preparedness Cycle



Help for State NVS Planning and Readiness

- NVS Federal/State Liaison to help states create their plan for the NVS and other resources
- NVS website for publications and information on planning
- Logistics training and exercises with the NVS to refine and test response

NVS Website

<http://nvs.aphis.usda> (no www)

The screenshot shows the NVS website interface. On the left is a navigation sidebar with a search bar and two sections: 'Browse by Audience' and 'Browse by Subject'. The 'Browse by Subject' section lists various topics like Animal Health, Animal Welfare, Biotechnology, etc. The main content area is titled 'Animal Health' and features a section for 'National Veterinary Stockpile (NVS)'. Below this, there is a list of documents and a 'More' link. A red arrow points to a 'NOTE' stating 'This page is password protected.' A 'News' section at the bottom lists 'NVS Finishes Major FMD Exercise with States (pdf 29kb)'. On the right, there is a 'Related Topics' section with links to 'Emergency Management Response System (EMRS)' and 'Emergency Management'. Overlaid on the right side is a dialog box titled 'Connect to www.aphis.usda.gov' which contains a warning about insecure authentication and fields for 'User name' and 'Password'.

Animal Health

National Veterinary Stockpile (NVS)

What is the National Veterinary Stockpile

- [Template for State NVS Plan Version 1.2 - October 2, 2009 \(doc 5.58mb\)](#)
- [NVS Planning Guide Version 2 - June 18, 2009 \(pdf 580kb\)](#)
- [NVS Program Brochure \(pdf 114kb\) \(12-05-07\)](#)
- [Questions & Answers](#)
- [NVS Outreach and Exercise Programs \(pdf 91kb\) \(09-29-09\)](#)
- [State Readness Evaluation Checklist - Ver1.0 \(doc 324kb\)](#)

Information for Planners [More](#)

NOTE: This page is password protected.

News

[NVS Finishes Major FMD Exercise with States \(pdf 29kb\)](#)

Related Topics

- [Emergency Management Response System \(EMRS\)](#)
- [Emergency Management](#)

Connect to www.aphis.usda.gov

The server www.aphis.usda.gov at Emergency Management requires a username and password.

Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).

User name:

Password:

OK Cancel

Questions & Answers

[Home](#) | [About APHIS](#) | [Newsroom](#) | [Career Opportunities](#) | [Help](#) | [Contact Us](#)

Search APHIS

Browse by Audience

Browse by Subject

- ▶ [Animal Health](#)
- ▶ [Animal Welfare](#)
- ▶ [Biotechnology](#)
- ▶ [Emergency Preparedness and Response](#)
- ▶ [Import and Export](#)
- ▶ [International Services](#)
- ▶ [Permits](#)
- ▶ [Plant Health](#)
- ▶ [Regulations and Assessments](#)
- ▶ [Wildlife Damage Management](#)

You are here: [Animal Health](#) > [Emergency Management](#) > [National Veterinary Stockpile](#) > [NVS Questions and Answers](#)

Animal Health

NVS Questions and Answers

- [3D Support \(pdf 33kb\) \(03-17-09\)](#)
- [Getting 3D Contractor Help \(pdf 325kb\) \(11-13-09\)](#)
- [AI Antigen Test Kit \(pdf 14kb\) \(10-29-08\)](#)
- [AI Killed Vaccine \(pdf 16kb\) \(10-29-08\)](#)
- [AI Live Fowl Pox Vaccine \(pdf 19kb\) \(10-29-08\)](#)
- [Locations of the NVS \(pdf 14kb\) \(01-29-08\)](#)
- [NVS Exercise \(pdf 15kb\) \(01-29-08\)](#)
- [Ordering Personal Protective Equipment \(PPE\) \(pdf 45kb\) \(10-22-08\)](#)
- [Push Packs \(pdf 33kb\) \(07-02-09\)](#)

Last Modified: November 13, 2009

Related Topics

- [Emergency Management Response System \(EMRS\)](#)
- [Emergency Management Tools](#)
- [HPAI Response Plan](#)
- [National Animal Health Emergency Response Corps \(NAHERC\)](#)
- [Response Documents](#)
- [Reference Library](#)
- [Training](#)
- [Subscribe to the EMOC Notification List](#)

I Want To...

- [Learn about Emergency Response and the Office of Emergency Management and Homeland Security](#)

Restricted Website for NVS Planners

Browse by Audience

Select an Option ▾

Browse by Subject

- ▶ Animal Health
- ▶ Animal Welfare
- ▶ Biotechnology
- ▶ Emergency Preparedness and Response
- ▶ Import and Export
- ▶ International Services
- ▶ Permits
- ▶ Plant Health
- ▶ Regulations and Assessments
- ▶ Wildlife Damage Management

National Veterinary Stockpile (NVS)

Information for Planners

Presentations

- [NVS Basics Brief](#) - August 25, 2009 (pdf 1.34mb)

Publications

- [NVS Business Plan Version 3.1](#) - October 2, 2009 (pdf 461kb)

Reports

- [Arizona Navajo Exercise AAR-IP](#) - December 9, 2009 (pdf 1.38mb)
- [MSP After Action Report/Improvement Plan](#) - August 2009 (pdf 450kb)
- [Vermont After Action Report/Improvement Plan](#) - September 29, 2009 (pdf 414kb)

State NVS Plans

- [Illinois NVS Plan](#) May 2009 (pdf 1001kb)
- [Kentucky NVS Guidelines Draft](#) June 2009 (pdf 3.58mb)

Steering Committee Proceedings

Related Topics

- [Emergency Management Response System \(EMRS\)](#)
- [Emergency Management Tools](#)
- [HPAI Response Plan](#)
- [National Animal Health Emergency Response Corps \(NAHERC\)](#)
- [Response Documents](#)
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I Want To...

- [Learn about Emergency Response and the Office of Emergency Management and Homeland Security \(OEMHS\)](#)
- [Report a Pest or Disease](#)

Exercises

Date	Location	Scenario	Type ¹
Jul 06	North Carolina	HPAI	TTX
Oct 06	Georgia	HPAI	TTX
Sep 07	Delaware (support State Ex)	HPAI	TTX
Oct 07	Iowa	HPAI	TTX+FSE
Mar 08	California	HPAI	FSE
Sep 08	South Carolina	HPAI	TTX+FSE
Nov 08	New England (support State Ex)	FMD	TTX
Jun 09	Multi-State Partnership ² + Canada	FMD	TTX+FSE
Aug 09	AZ/Navajo Nation/Hopi	RVF	TTX
Sep 09	Vermont	FMD	TTX
Apr 10	SAADRA ³	RVF	FSE

¹ TTX=Tabletop
FSE=Deployment

² Multi-state Partnership for Security in Agriculture
³ Southern Agriculture and Animal Disaster Response Alliance

Deployment

Request

5 EASY STEPS!!



1.
State Vet & AVIC Conclude
Assistance needed

2.
Consult APHIS Region

3.
Region Calls NVS
800.940.6524



4.
NVS confers with
State/Federal authorities

5.
State provides information
about disease

Key Questions for State

1. Disease – to determine type and protective level of Personal Protective Equipment
2. Number of responders – to determine the quantity of PPE and disinfectant
3. Species – to determine the type of animal handling equipment
4. Animal Populations – to determine the quantity of animal handling equipment

Request and Deploy



Request permission to deploy

Deputy Administrator APHIS VS

or

Associate Deputy Administrator Emergency Management and Diagnostics

Activate HQ NVS Deployment Management Team

Approved

Deploy

Mobile Logistics Team



24-hour Push Package

- PPE/Decon items State needs to respond immediately
- Arrives within 24 hours of APHIS' order to deploy
- NVS ships additional items to continue supporting the response



24-Hour Push Package Composition & Coverage



Powered Air Purifying Respirator

Protection Level	Personal Protective Equipment ¹		Decon Supplies
High (zoonotic)	2 tri-wall TyVek 1 tri-walls Gray TyChem	1 tri-wall PAPRs	1 tri-wall
Standard	2 tri-walls TyVek 1 tri-wall Yellow TyChem		1 tri-wall

¹Coverage: 10 people changing 5 times a day for 10 days

Response Support Services

- Emergency transportation
- 3D commercial responders

Emergency Transportation

- Supplies
- Equipment
- Samples
- Vaccines



Emergency Transportation

- Alabama sample to NVSL Ames Iowa, 5 hours
- Iowa sample to FADDL Plum Island, 3.5 hours

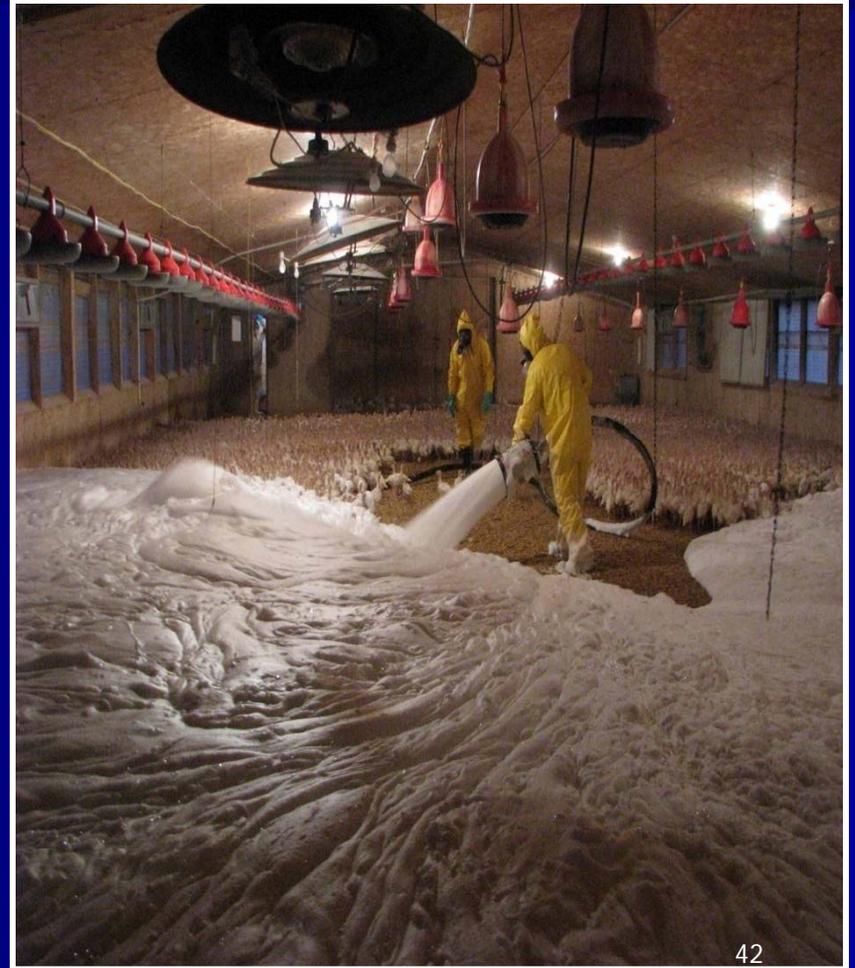


3D Commercial Responders

- Large numbers of trained, self-sufficient personnel with equipment
- Arrive within 24 hours, 500-600 people within 72 hrs, 1,000 within a week
- Provide depopulation, disposal, decontamination, other
- Qualified and managed by the NVS



3D Depopulation



3D Carcass Cleanup



3D Carcass Cleanup



NVS – A New Weapon for Fighting Animal Disease

- Nation's repository of critical veterinary countermeasures
- APHIS' logistics experts
 - Focus exclusively on the logistics of disease response,
 - Coordinate logistics planning, particularly for catastrophic outbreaks,
 - Provide large quantities of countermeasures so States have what they need to respond
 - Manage time certain deployment of countermeasures usually within 24 hours
 - Help states plan, train, and exercise the rapid delivery of massive NVS countermeasures (and other resources) to responders.



National Veterinary Stockpile

** Science-Based Logistics Improving Disease Response **

Questions: NVS@aphis.usda.gov

Information: <http://nvs.aphis.usda.gov/>

Emergencies: **800.940.6524**