

# **RESPONSE PLAYBOOK**

New World Screwworm

# **Target Audiences**

- Federal, State, Tribal, and Territorial Animal Health Officials
- NWS outbreak responders

# **Purpose**

- Provide quick, practical access to key activities, resources, and tools to implement NWS response and surveillance activities.
- Describe the adaptive response approach, which is the practice of dynamically adapting outbreak response activities from confirmation, containment, control, and eradication.

# **User Guide**

#### **OVERVIEW OF NWS RESPONSE**

New World screwworm (NWS) is a devastating pest and is a threat to U.S. agriculture, wildlife, public health, economy, and food supply. NWS will have immediate and serious negative interstate commerce and international trade impacts. To defeat this pest, the United States Department of Agriculture (USDA) developed a <a href="5">5-prong plan</a> to address NWS and enhance USDA's already robust ability to detect, control, and eliminate this pest if there is an incursion in the United States. NWS response goals will be to 1) detect, control, and contain NWS as quickly as possible; 2) eradicate NWS using strategies that seek to stabilize animal agriculture, the food supply, and the economy as well as protect public health and the environment; and 3) provide science- and risk-based approaches and systems to facilitate continuity of business of U.S. agriculture.

The primary use of the playbook is for an NWS outbreak in the United States triggered by <a href="NWS establishment">NWS establishment</a> in the United States. NWS impacts all <a href="warm-blooded animals">warm-blooded animals</a> (humans, <a href="domestic animals">domestic animals</a> and <a href="wildlife">wildlife</a>); the incorporation of these aspects are necessary for integration of successful response activities.

The primary response strategy for an NWS outbreak is 1) prevent contact between NWS flies and non-infested animals and 2) stop the production cycle and establishment of NWS flies. This is accomplished through prevention, detection, and treatment of wounds in animals as well as establishment of NWS response zones and areas. Detection and appropriate treatment of infested animals and use of the <a href="sterile insect technique">sterile insect technique</a> (SIT) will help stop the production cycle of NWS flies.

#### INTRODUCTION TO THE PLAYBOOK

The playbook is meant to be a useful resource to help animal health officials and responders manage and adapt their response to NWS. The playbook is meant to be an easily referenced NWS response plan and a companion to the USDA APHIS NWS Response Strategy.

The phases of the response include:

- Preparedness, or the continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action to ensure effective coordination during an outbreak response.
- Confirmation, or NWS establishment in the United States due to NWS mylasis in warm-blooded animals or detection of NWS fly.
- Containment, or preventing the spread of NWS in early stages of infestation through measures such as early detection, quarantines and movement requirements, SIT and surveillance to reduce spread in domestic animals and wildlife.
- Mitigation, or minimizing the outbreak impact, by reducing the geographic extent of the affected area to reduce strain on resources.
   Achieved largely through quarantines and movement requirements, SIT and surveillance, and constant evaluation of impacted areas.
- Control, or demonstrating infestation is being mitigated based on epidemiology and surveillance.
- Eradication, or demonstrating freedom from NWS in previously affected areas.

The critical response activities include the following:

- Managing a coordinated response and communications with stakeholders and the public
- Reducing NWS spread to animals and preventing it from establishing in new areas
- Monitoring and eliminating NWS through surveillance, movement requirements, treatments, and the SIT
- Maintaining continuity of business
- Ensuring information flow and management
- Identifying and maintaining resource needs

Integration of these response activities is critical for eradication. Each response activity can be adapted based on the outbreak situation, including for the different types and phases of an outbreak (Table 1).

Table 1: Differentiating between Types of NWS Outbreaks

NWS Outbreak Type	Response Activities
Type 1 - Focal Outbreak Localized to one infested zone within one state	Intense surveillance within NWS Zones, movement requirements for animals moving within and out of the Infested Zone. Initial activities performed by state or federal personnel.
Type 2 - Moderate Sized or Regional Outbreak Spanning multiple counties or a large region of a state	Intense surveillance continues; start to utilize producers and certified inspectors for inspection, treatment, and sample submission. Sterile fly strategy may shift to focus on preventing outward spread and shrinking zones on leading edge.
Type 3 - Widespread or Multi-state Outbreak Outbreak spans an entire state, multiple states, or moderate sized outbreaks in multiple states	Same as Type 2 but resources become further constrained. Adapt the response to account for limitations in resources such as available personnel and total number of sterile flies.

The playbook must be adapted to the local context. All guidance should be developed in collaboration with Federal, State, Tribal, and Territorial officials. States, Tribes, and Territories will need to adapt their response to meet the needs of their jurisdiction.

USDA APHIS Veterinary Services provides guidance, support, resources, and coordination during an NWS outbreak response. The approaches and tools included in the playbook reflect USDA APHIS guidance and aim to provide a practical framework to rapidly focus on priority activities outlined by USDA APHIS. Tools and resources will be updated regularly as new guidance on NWS is released by USDA APHIS.

This playbook is a living, dynamic document. Feedback and suggestions can be sent to <u>FAD.PReP.Comments@usda.gov</u>.

#### **KEY PRINCIPLES FOR THE PLAYBOOK**

**Driven by data, science, and risk**Use data to inform decisions.

# **Protection of United States agriculture and related sectors**

Ensure response activities do not negatively impact the commerce of United States agriculture and ensure a secure and safe food supply.

## **Communication and engagement**

Maintain coordination and communication among States, Tribes, Territories, and stakeholders.

# **Local adaptation**

Adapt general response strategies to the regional and local context to maximize outbreak control efforts and minimize economic impacts.

# Managing an NWS Response: Key Activities



# Effectively manage a coordinated response and communications with stakeholders and the public

- Establish USDA regulatory authorities to respond to an NWS outbreak
- Use a unified approach across Federal Agencies and with the State(s) and define Federal Agency Roles
- Identify responsibilities between USDA APHIS and State animal health officials
- Communicate with key federal, State, and Industry partners to support timely surveillance and response

# Reduce spread to non-infested animals and prevent **NWS from establishing in new areas**

- Immediately establish minimum 20 km Infested Zone, 20 km Adjacent Surveillance Zones, and Fly Surveillance Area around animal and wild fly detections
- Quickly implement area quarantines and movement requirements for domestic animal premises located within Infested Zones and on Epi-linked and Suspect Premises
- Perform animal movement tracing on premises with infested animals as quickly and completely as possible; prioritize tracing needs based on risk of NWS establishment in new areas
- Conduct epidemiological investigations and analyses to inform the response
- Conduct domestic animal surveillance
- Quickly identify specimens (larvae and flies) and maintain timely and accurate surveillance

# **Manage NWS on infested premises**

Follow USDA APHIS and State guidelines and requirements for managing myiasis and any required euthanasia and/or disposal



# **Implement NWS Surveillance and Management** Strategies in Wildlife

- Conduct surveillance in wildlife to aid in determining presence of NWS
- Adhere to sampling guidance when conducting surveillance
- Manage transport and shipment of wildlife
- Manage infested wildlife



# Implement NWS fly surveillance and management strategies

- Establish fly surveillance structure and activities in Infested Zone and Fly Surveillance Area
- Coordinate and conduct fly surveillance in an affected area
- Deploy Sterile Insect Technique (SIT) throughout Adjacent Surveillance Zone and Fly Surveillance Area



# Maintain continuity of business (COB)

Implement COB plans to facilitate the managed movement of animals



# **Ensure information flow and management**

- Record and report all NWS Fly Trapping and Sterile Fly Release Activities using USDA's Emergency Management Response System (EMRS)
- Record and report domestic and wildlife field data using **EMRS**
- Utilize EMRS to manage and track Active and Passive Surveillance Activities
- Utilize EMRS to manage the outbreak and meet national and international reporting requirements



# Identify and maintain resource requirements

Continually assess equipment, supplies, and personnel needs

# **Key Activities, Resources, and Tools**

# 01 EFFECTIVELY MANAGE A COORDINATED RESPONSE AND COMMUNICATIONS WITH STAKEHOLDERS AND THE PUBLIC

# 1.1 Establish USDA regulatory authorities to respond to an NWS outbreak

#### **Key Activities**

- If NWS becomes established in the United States, USDA is the lead federal agency of a coordinated response to control and eradicate NWS and ensure availability of resources.
- USDA APHIS Veterinary Services (VS) emergency response authorities will be used to support NWS response
  activities. These authorities in conjunction with State, Territorial, and Tribal authorities allow response
  activities to be conducted in affected areas.
- USDA may issue a Declaration of Extraordinary Emergency in the event of <a href="NWS establishment">NWS establishment</a> in the U.S. to ensure all federal government resources are available and coordinated for this emergency event.

#### **RESOURCES AND TOOLS**

- <u>USDA APHIS Authorization for</u> Response Activities
- AHPA (7 U.S.C. 8301-8317)
- Declaration of Extraordinary Emergency (contingent on Leadership Approval)

# 1.2 Use a unified approach across Federal agencies and with the State and define Federal agency roles

#### **USDA Roles**

- USDA APHIS NWS Directorate: facilitates coordination across federal departments to ensure USDA APHIS activities are aligned with broader U.S. government response efforts. Leads USDA's strategic communication and policy alignment across the federal government. Serves as operational lead for NWS activities occurring in Mexico and Central America. Leads the coordination and implementation of aerial sterile fly release activities.
- APHIS VS: establishes a unified Incident Command System organizational structure per the <u>National Incident Management System</u> across the federal government and with the <u>State animal health official</u> (SAHO) of the affected State(s) to enable efficient and effective incident management. Serves as the operational lead for domestic preparedness and response to NWS, including field operations, diagnostics, and surveillance. Provides subject matter experts, technical guidance, and operational planning input.
- APHIS Wildlife Services (WS): serves as the lead for wildlife response strategies and field operations, in coordination with federal and state partners.
- APHIS Emergency and Regulatory Compliance Services (ERCS) serves as lead for incident safety and dispatch

#### **Roles of Other Federal Partners/Resources**

- Department of Health and Human Services
  - Center for Disease Control and Prevention (CDC): leads human health surveillance and response, providing diagnostic support, educating healthcare providers, and coordinating One Health efforts across federal, state, and international partners.
  - Food and Drug Administration (FDA): authorizes and/or approves the use of certain animal therapeutics to treat or prevent infestations caused by NWS.
- Department of Interior (DOI): ensures wildlife surveillance and environmental compliance, particularly on federal lands.
- Department of Energy (DoE): explores and validates new NWS sterilization technologies.
- Department of Homeland Security (DHS): supports surveillance, intelligence sharing, and emergency planning, including training Customs and Border Protection and Immigrations and Customs Enforcement personnel to identify and respond to NWS cases.
- Environmental Protection Agency (EPA): approves pesticides and supports emergency exemptions for products to prevent or control infestations caused by NWS.
- Additional Federal Agencies when needed.

U:	SDA Roles	Roles of Other Federal Partners/Resources
•	APHIS Plant Protection and Quarantine (PPQ): provides field resources	
	and entomological expertise, such as support with additional fly trapping	
	and NWS identification.	
•	USDA Agricultural Research Service (ARS): provides entomological	
	expertise, resources, and tools. Conducts NWS research.	
•	Coordination with other USDA agencies will occur as needed.	

# 1.3 Identify responsibilities between USDA APHIS and State animal health officials

# **Key Activities**

USDA APHIS Activities	State/Territory/Tribes Activities
<ul> <li>Coordinate national public awareness campaign</li> <li>Coordinate the national incident response</li> <li>Authorize, coordinate, and implement SIT operations</li> <li>Coordinate NWS fly and larval identification at APHIS' National Veterinary Services Laboratories (NVSL), through the National Animal Health Laboratory Network (NAHLN), and state entomologists</li> <li>Deploy incident management teams (IMTs) and NWS strike teams, when requested</li> <li>Coordinate the use of VS' Emergency Management and Response System (EMRS) for incident management</li> <li>Provide access to the National Veterinary Stockpile (NVS)</li> <li>Enter into emergency cooperative agreements with states</li> <li>Develop and conduct training for responders (state, federal, industry) to include field responder and outreach educator training coursework</li> <li>Support CDC and state agriculture/public health partners in human and companion animal investigations</li> </ul>	<ul> <li>Identify state agencies and tribal governments needed to implement response activities</li> <li>Coordinate the state incident response</li> <li>Coordinate state public awareness campaign</li> <li>Coordinate and provide security and safety of response personnel</li> <li>Issue and enforce animal <u>quarantines</u> and <u>movement requirements</u></li> <li>Implement NWS zones and areas</li> <li>Implement animal inspection stations, when needed</li> <li>Deploy State IMT</li> <li>Request USDA APHIS personnel (e.g., IMT/NWS strike team) and equipment/supply resources</li> <li>Use EMRS, in addition to State or industry information technology systems, for reporting and incident management</li> <li>Coordinate with USDA APHIS on fly trapping and SIT activities</li> <li>Coordinate with APHIS VS for diagnostic sample collection, transport, and reporting between NVSL, NAHLN, and state entomologists</li> <li>Enhance surveillance and case detection through outreach; coordinate surveillance in livestock, companion animals, and wildlife</li> </ul>

- APHIS Foreign Animal Disease Framework: Roles and Coordination (FAD PReP Manual 1-0)
- NWS ICG/IMT Organizational Structure Template (under development)

Companion Animals		
USDA APHIS Activities	State/Territory/Tribes Activities	
<ul> <li>Provide guidance for companion animal screening, quarantines, and treatment in affected zones.</li> <li>Support veterinary diagnostics for companion animals suspected of NWS infestation.</li> <li>Issue outreach materials and guidance to veterinary practitioners and animal owners on recognizing and reporting signs of infestation.</li> <li>Integrate companion animal data into national surveillance and reporting systems to inform response planning.</li> </ul>	Implement companion animal inspection, treatment, and reporting protocols in coordination with USDA guidance.	

# 1.4 Communicate with key federal, State and Industry partners and the public to support timely surveillance and response

## **Key Activities**

- Coordinate public awareness campaign and enhance public outreach and education through stakeholder notices, webinars, campaigns and other materials as needed.
- Coordinate with CBP to enhance public reach and awareness of methods to prevent NWS introduction due to international travel.
- Promote awareness of response activities implemented and NWS status in animals through public-facing dashboards and websites.

- <u>USDA APHIS NWS Public</u> <u>Website</u>
- USDA APHIS FAD PReP: New
  World Screwworm

# 02 REDUCE SPREAD TO NON-INFESTED ANIMALS AND PREVENT NWS FROM ESTABLISHING IN NEW AREAS

# 2.1 Immediately establish a minimum 20 km Infested Zone, 20 km Adjacent Surveillance Zone, and Fly Surveillance Area around animal and wild fly detections

#### **Key Activities**

# Approach for NWS detections<sup>1</sup> in domestic animals, wildlife, or of the NWS wild (fertile) fly

- Immediately establish a minimum 20 km Infested Zone (IZ) and a surrounding 20 km Adjacent Surveillance Zone (ASZ) around 1) premises with an infested domestic animal, 2) the location of infested wildlife, or 3) the location of NWS fly detections. This allows response activities to begin and be efficiently and effectively coordinated.
  - o A minimum 20 km IZ is based on the daily distance NWS flies travel (1-2 km) and how long they fly in a lifetime (10-14 days). This initial zone sizing has also historically been used globally.
- Establish a Fly Surveillance Area (FSA) that overlaps and extends outward from the Infested and Adjacent Surveillance Zones.
- o The FSA should extend outward from NWS animal or fly detections to a distance up to 200 km based on an assessment of factors that impact long-range travel of the fly (e.g., habitat suitability, geographic range, climate, weather, animal density, etc.).
- o The outside border of the FSA may not extend equally in all directions.
- Expand the IZ to encompass new NWS animal or fly detections when they are located within, or proximate to, an existing IZ/ASZ/FSA and considered part of the current area or region infested.



Figure 1: Animal or Fly Detection in an Infested Zone

- Establish a new IZ when an NWS detection is 1) not located within an existing IZ/ASZ/FSA and 2) is located outside the NWS fly geographic range of the current area or region infested (e.g., long-distance movement of an infested animal originating from a previously established IZ).
- Determine premises designations in the IZ, ASZ and FSA (i.e., premises with and without infested animals, animal movement traced premises, suspect premises).

# Approach for NWS isolated cases, or suspect cases not able to be sampled, that are located outside an established Infested Zone

• Quickly determine if an NWS case is isolated through epidemiological investigation: an NWS isolated case is one that is located outside an established IZ where the infestation is contained to the initial finding, such as the case having a travel history outside the United States to a screwworm-infested country within the past 10 days or NWS establishment in the area is not likely due to epidemiological factors such as early detection or being located in unsuitable NWS habitat resulting in negligible risk of larval development.

- NWS FAD PReP Establishing and **Releasing NWS Zones and Areas**
- USDA entomologists and analysts will determine Fly Surveillance Area sizing based on fly ecology and habitat assessment

<sup>&</sup>lt;sup>1</sup> See NWS Case Definition.

- Identify NWS suspect cases not able to be sampled; this may include wildlife suspected to have NWS based on wildlife camera images or visual observations of wildlife with wounds, but the animals are not under human control to be sampled.
- For these situations, immediately conduct an epidemiological investigation and implement precautionary animal and fly surveillance through establishment of an Adjacent Surveillance Zone (ASZ) and Fly Surveillance Area (FSA) to demonstrate absence of NWS establishment.
- Immediately establish an Infested Zone (IZ) anytime NWS establishment is suspected or identified.

# 2.2 Quickly implement area quarantines and movement requirements for domestic animal premises located within Infested Zones and on Epilinked and Suspect Premises

#### **Key Points**

- Quarantines are emergency regulatory interventions to manage domestic animal movements and/or actions; the following authority applies:
- State/Tribal/Territory Authority and/or
- o USDA Authority: existing USDA authorities or USDA Extraordinary Emergency Declaration.
- Quarantines have specific managed movement requirements and actions (traceability, surveillance, and treatment requirements) depending upon the Premises Status or location within an IZ.
- Appropriate Infested Zone (or other zone) designations may be required for implementation of quarantine, movement requirements, and animal inspections, and application of treatment.

#### **RESOURCES AND TOOLS**

- NWS National Continuity of Business: Standardized Animal Health Certificate Guidance Document
- New World Screwworm Case Definition

#### **Key Activities**

- Impose State area quarantines and/or hold orders on all domestic animal premises located within IZs to implement and enforce movement requirements, reporting of suscept cases, and response activities.
- Impose State premises-level quarantines and/or hold orders on all premises with infested domestic animals and on suspect and animal traced premises to manage and eliminate NWS infestations (see Section 3).
- Once the IZ is established, implement area quarantine and movement requirements, including pre-movement animal health inspection and treatment when appropriate, based on standardized continuity of business NWS animal health certification guidance (see <u>Section 6</u>).

# 2.3 Perform animal movement tracing on premises with infested animals as quickly and completely as possible; prioritize tracing needs based on risk of NWS establishment in new areas

# **Key Activities**

- Utilize the NWS epidemiology questionnaire to determine if tracing of animals, visitors, or infested material (e.g., manure) on or off infested premises is needed.
- Conduct tracing of animals, visitors, or potentially infested materials that moved on and off an infested premises within a 2-month window prior to infestation (~2 NWS life cycles), prioritizing recent animal movements.
- Coordinate tracing of human movement with public health partners.
- Leverage animal movement data to perform tracing as quickly as possible.
- When there is a high volume of animals to trace or resources are limited, prioritize tracing based on risk of NWS establishment in new areas:

- NWS Epi Questionnaire (in development)
- USDA APHIS VS Center for Epidemiology and Animal Health
- USDA APHIS <u>NWS Strategy Plan:</u> Surveillance

- o Prioritize tracing animal movements off an infested premises.
- o Prioritize tracing animals, visitors, and potentially infested materials that moved outside an established Infested Zone.

#### **Companion Animals**

- Support state animal health authorities with investigating NWS cases in companion animals.
- Coordinate with state authorities to implement temporary movement restrictions or quarantines as needed.
- Engage veterinarians, shelters, rescues, and boarding facilities to report suspected cases of NWS infestation.
- Deploy targeted outreach to shelters, boarding facilities, rescue groups, and veterinary clinics to enhance early detection and reporting.
- Identify and evaluate movements of companion animals with confirmed or suspected NWS infestation to determine if the case is isolated, identify exposure sites and other at-risk populations. and inform surveillance and other response activities.
- Support the American Veterinary Medical Association (AVMA) and other partners in the creation of treatment protocols for companion animals.
- Integrate companion animal data into mapping and modeling efforts to inform surveillance priorities.

# 2.4 Conduct epidemiological investigations and analyses to inform the response

## **Key Activities**

An epidemiologic investigation can identify cases, determine risk factors for infestation, determine the scale and scope of the outbreak, and support the development of mitigation strategies.

- Administer epidemiological questionnaires to all infested premises, including those with infested companion animals, and premises that are linked epidemiologically (epi-linked) to infested premises.
- o Premises may have the questionnaire administered multiple times throughout the outbreak as the situation requires, such as if they are located within multiple zones, or if they become infested multiple times.
- Complete summaries and analyses using the epidemiological data collected to support internal/external reporting and communication with stakeholders, trade partners, and the public.
- Conduct an epidemiological investigation on premises adjacent to infested premises.
- Collect epidemiological information for movements into and out of the Infested Premises to identify epi-linked trace premises.
  - o Epi-linked trace premises may include the entire premises, or smaller epidemiological units when appropriate.
- Prioritize investigations based on location (outside the Infested Zone (IZ) before premises within the IZ), risk, and other epidemiological factors.
- Inspect animals on epi-linked premises to assure freedom from NWS, being especially thorough with animals originating from the infested premises.

# **Companion Animals**

- Include companion animals in outbreak case investigations to identify potential pathways or areas of infestation.
- Collect detailed epidemiological data on companion animals associated with infestations.
- Analyze companion animal cases to assess their role in maintaining or spreading NWS.

#### 2.5 Conduct domestic animal surveillance

#### **Key Activities**

#### Passive Surveillance in the Infested Zone and Adjacent Surveillance Zone

- Perform extensive outreach and training in the IZ and ASZ, targeting animal owners, veterinary
  practitioners, and animal related businesses to increase vigilance and promote frequent inspection of
  animals for wounds and infestation, implementation of animal husbandry best practices, and reporting of
  suspect cases.
- Track outreach and training activities in EMRS (see <u>Section 7</u>).
- Continue enhanced passive surveillance for domestic animals until zones are released and the affected state is declared free.

#### **Active Surveillance in the Infested Zone**

Active surveillance of domestic animals will be accomplished through animal inspections prior to moving out of an IZ.

- Perform pre-movement inspections on <u>farm-raised animals</u> and captured/captive wild or feral animals under temporary or permanent human control
  - o Perform thorough physical exams (using sight, smell, and touch) of all individual animals in a shipment, paying close attention to animals with wounds and other risk factors.
  - Meet requirements and obtain an animal health certificate prior to animal movement out of an IZ for animals subject to NWS movement requirements, assuring inspection and documenting pre-movement treatment when administered (see Section 6).
  - If myiasis is found during pre-movement inspection, place animals and the premises under quarantine until a Foreign Animal Disease (FAD) investigation and initial epidemiologic investigation can be completed. All suspect cases must be reported to the appropriate animal health authority (USDA VS, SAHO).
- Perform additional active surveillance activities in or around the IZ and ASZ as determined by the SAHO and APHIS VS. These may include:
  - o regulatory inspection visits of premises,
  - o movement control checkpoints for inspection of livestock shipments or companion animal movements,
- $\circ$  regulatory inspections at slaughter establishments, and
- o investigating and monitoring companion animal and human cases in coordination with CDC and state public health partners.

#### **RESOURCES AND TOOLS**

- SOP for instructions on how to perform animal inspections (under development)
- SOPs for observational surveillance targeting (under development)
- Guidance for NWS Farm-Raised Animal Surveillance (under development)
- NWS FAD PReP Establishing and Releasing NWS Zones and Areas

- USDA APHIS VS Center for Epidemiology and Animal Health, Surveillance Design and Analysis
- USDA APHIS <u>NWS Strategy Plan:</u> <u>Laboratory Diagnosis</u>
- USDA APHIS <u>NWS Strategy Plan:</u> Surveillance
- USDA APHIS Fly Surveillance and Site Selection Methods
- NAHEMS: Surveillance, Epidemiology, and Tracing
- Guidance for NWS Farm-Raised Animal Surveillance (under development)

# 2.6 Quickly identify specimens (larvae and flies) and maintain timely and accurate surveillance

#### **Key Activities**

#### Coordinate larval identification at NVSL and NAHLN, or other APHIS approved laboratories

- NWS identification will be performed at USDA APHIS approved NAHLN laboratories, by approved other laboratories/entomologists in a state, or at NVSL; all confirmatory testing will be performed at NVSL.
- Coordinate with the USDA APHIS VS NAHLN Coordinator.
- Ensure NAHLN and NVSL testing requirements and sample submissions are coordinated and communicated between the IMT, NAHLN laboratories, NAHLN coordinator, and NVSL Director.
- Forward any presumptive NWS fly or larvae, or flies/larvae that resemble NWS to NVSL within 24 hours of laboratory receipt. Communicate with the APHIS VS/SAHO where the fly/larvae were collected; include assigned FAD investigation number in communication with NVSL, NAHLN and electronic results.
- Ensure electronic messaging of results following NWS specific guidelines; refer to the NAHLN Messaging Guidance.
- APHIS may approve other laboratories/entomologists outside of the NAHLN network to assist with identification. These laboratories outside of the NAHLN network will adhere to the same reporting requirements as outlined above for the NAHLN laboratories.

#### **RESOURCES AND TOOLS**

- USDA APHIS <u>NWS Strategy Plan:</u> <u>Laboratory Diagnosis</u>
- USDA APHIS NVSL
- National Animal Health Laboratory Network
- NAHLN Information Technology System
- NWS Case Definition
- Foreign Animal Disease Investigation Guide: NWS
- NVSL-SOP-xxxx.01: Screening Evaluation of Flies for Family Calliphoridae Characteristics (under development)

# 03

# MANAGE INFESTED ANIMALS AND PREMISES

# Follow USDA APHIS and State guidelines and requirements for managing NWS myiasis and any necessary euthanasia and/or disposal

# **Key Activities**

- Depopulation of animals is generally not expected to be used for control and eradication of NWS. However, individual animals may need to be euthanized for humane reasons or in cases when treatment is not possible.
- If animals are required to be depopulated and approval is obtained to request indemnity, the value of domestic animals will be obtained from the VS-prepared <u>indemnity table</u> values (or other method dependent on species).

# Implement guidelines for managing infested animals and premises

- Producers must report suspect cases immediately to the veterinary authority (USDA Area Veterinarian in Charge [AVIC], or SAHO) or their veterinarian. Veterinarians must report all cases to the AVIC or SAHO
- Premises containing animals suspected of NWS myiasis will be placed on a hold order while the case is
  under investigation. Domestic animals will be restricted from moving off the premises until they can be examined for wounds and myiasis by regulatory
  personnel.

- USDA APHIS <u>Disease Response Strategy:</u> NWS Myiasis
- AVMA Guidelines for the Euthanasia of Animals
- Reference State Checklist and Overview of Finance and Admin (under development)
- Considerations for carcass disposal (under development)

- Perform physical inspection of domestic animals (including companion animals in a residential or urban setting) and apply treatment where appropriate following NWS Examination Checklist. Physical inspection and treatment should be completed by a regulatory or licensed veterinarian.
- State or federal personnel should follow EMRS guidelines in the EMRS NWS Tracking Toolkit to track activities associated with the infested premises.
- Once inspected, non-infested animals may be moved off the premises if Infested Zone movement requirements are met.
- Conduct an epidemiologic survey and perform trace investigations outlined in <u>Section 2</u>.
- See <u>Section 4</u> for managing wildlife on premises with infested animals.
- The quarantine may be released once all wounds are healed and there is no evidence of reinfestation after 21 days, and owner has completed mitigation activities in the Infested Premises checklist. If the owner is unable to perform sufficient environmental mitigation activities, quarantine may be extended.
- After quarantine is released, all domestic animals on the premises will still be subject to movement requirements within the Infested Zone.

#### **RESOURCES AND TOOLS**

- Premises Management and Disposal (under development)
- Considerations for carcass disposal (under development)

# Implement guidelines for <u>temporary animal aggregation points</u> (such as markets and buying stations), and slaughter establishments with a detection of an infested animal

- If an infested animal is found at an animal aggregation point, initiate an FAD Investigation. Follow documentation guidelines in EMRS NWS Tracking Toolkit.
- Any changes to the requirements listed in this section must be approved by APHIS and the SAHO.
- Dispose of carcasses and materials as outlined in Disposal and Premises Management Guidance documents.
- If the aggregation point is within an established IZ:
  - o Hold all animals in the same lot as the suspect animal.
  - o Inspect all animals in the lot following the NWS Examination Checklist.
- o Return infested animals to the premises of origin. If an inspection of all animals in the lot cannot be performed, return all animals to the premises of origin or hold and treat animals according to guidelines.
- o Additional pest mitigations may be required depending on where and how long the infested animals were housed on site prior to detection.
- o Conduct an epidemiologic survey and perform trace investigations outlined in Section 2.
- o Changes to these requirements must be approved by APHIS and the SAHO.
- If the aggregation point is outside of an IZ:
- o Hold animals at the facility until all animals can be inspected.
- o Inspect all animals on the premises following the NWS Examination Checklist.
- $\circ$  Return infested animals to the premises of origin or hold and treat animals according to guidelines.
- o Additional pest mitigations may be required depending on where and how long the infested animals were housed on site prior to detection.
- o Conduct an epidemiologic survey and perform trace investigations outlined in <u>Section 2</u>.
- At a slaughter establishment:
  - o NWS is not a food safety concern, and animals should be processed in accordance with FSIS or State regulations (whichever is applicable).
- Refer to <u>FSIS Directive 6000.1 Responsibilities Related to Foreign Animal Diseases (FADs) and Reportable Conditions</u>, which directs FSIS to contact the AVIC or SAHO to investigate all FADs suspected at slaughter facilities.
- o Initiate a trace investigation to determine origin of an infested animal.

#### **Resources and Tools**

 SOPs/Guidance documents are maintained and kept current in the <u>EMRS</u> <u>NWS Tracking Toolkit</u> (authorized users only)

# 04 IMPLEMENT NWS SURVEILLANCE AND MANAGEMENT STRATEGIES IN WILDLIFE

## 4.1 Conduct surveillance in wildlife to aid in determining presence of NWS

#### **Key Points**

- Wildlife surveillance on the leading edge of the known Infested Zone (IZ) and throughout the Adjacent Surveillance Zone (ASZ) provides critical information for assessing the size of the zones.
- The primary objective of surveillance in wildlife for NWS is to aid in determining presence of NWS, especially in areas with low domestic animal densities.
- Surveillance will target both captive and free-ranging populations.
- Combining active and passive surveillance strategies using State and Federal agencies, private organizations, and private citizens provides comprehensive surveillance of wildlife.
- Citizens and private organizations that regularly observe or interact with wildlife are important sources for passive surveillance.
- Surveillance within the IZ is important for releasing the zone and evaluating the success of eradication efforts, and post-eradication to ensure ongoing NWS myiasis is not present.
- Surveillance of wildlife within the Infested Zone can be used to identify sentinel species, support improvements in methodology, and evaluate optimal strategies to leverage for improved surveillance outside the IZ.

# **Key Activities**

- Coordinate wildlife surveillance efforts with interagency partners, including State, Local, Tribal, and Territorial (SLTT) authorities, and DOI to enhance detection, data sharing, and response readiness.
- o Work with SLTT partners and DOI field personnel to conduct coordinated wildlife surveillance, ensuring consistent sampling, timely reporting, and integration of findings into a national NWS monitoring system
- o Leverage SLTT and DOI wildlife management activities (trapping, field investigations, population monitoring) to expand surveillance coverage and improve early detection of NWS.
- Start active wildlife surveillance after establishment of an Infested Zone (IZ) and Adjacent Surveillance Zone (ASZ).
- o Focus on high use areas (water, food, shelter and the travel corridors to each).
- o Include active surveillance streams such as hunter check stations, inspection of any wildlife being transported for any purpose, recently road killed animals, Agency (State or Federal) surveillance of wildlife contacted during routine activities (e.g. damage management, wildlife research, etc.), FAD investigations, camera traps placed by federal or state authorities, and targeted removal of individual wildlife exhibiting signs of NWS myiasis. See wildlife surveillance guidance document for more details.
- o Consider expanding active surveillance in wildlife outside the ASZ as the outbreak expands, or risks change. Wildlife with large home ranges (e.g., mountain lions) with documented NWS myiasis, should warrant consideration of a larger surveillance area.
- o Consider focusing on specific species that have been identified as good sentinel species.

- Passive Citizen Science App for public reporting (under development)
- Guidance and Considerations for NWS Active Surveillance in Wildlife (under development)
- Al programs such as <a href="CameraTrapDetector">CameraTrapDetector</a> or SpeciesNet to aid in identification of animal species. Other AI tools for detecting myiasis are under development.

- Incorporate Passive surveillance streams
- Provide outreach and education to key groups in the IZ and ASZ. Examples of key groups are private citizens and private organizations such as hunters,
   wildlife control specialists, wildlife rehabilitators, taxidermists, extension agents, researchers, and other private citizens and organizations that are routinely contacting or viewing wildlife.
- o Encourage these groups to report any sightings of potential NWS cases.
- Once an outbreak is resolved, surveillance in wildlife will remain ongoing to monitor cases of NWS and support releasing an IZ and demonstrating areas are NWS-free.

# 4.2 Adhere to sampling guidance when conducting surveillance

#### **Key Activities**

- Follow collection guidelines when collecting larvae from wildlife with suspected myiasis are detected.
- Coordinate sample collection from wildlife with SLTT and DOI to ensure alignment with ongoing management operations and is covered by necessary permitting and access agreements.
- Coordinate sample submission with APHIS AVIC, IMT, or SAHOs to ensure timely and accurate reporting

#### **Resources and Tools**

- NWS sampling kits for wildlife professionals
- NWS Sampling Protocol: Field Instructions for USDA Wildlife Services Personnel
- Foreign Animal Disease Investigation Guide: NWS
- Standard Operating Procedure for Possible

# 4.3 Manage transport and shipment of wildlife

#### **Key Activities**

#### **Confined Wildlife**

Shipment/transport of captive wildlife
 (i.e. zoo animals, farmed wildlife or other
 wildlife under human control) must
 adhere to regulations and policies
 pertaining to domestic animals outlined
 in Section 2.5.

#### Wildlife Carcasses

- All wildlife carcasses being transported out of the Infested Zone (IZ) or Adjacent Surveillance Zone (ASZ) should be inspected for NWS to prevent the unintentional spread of larvae. When feasible, establish hunter check stations within the zones for harvested wildlife during hunting seasons.
- Consider prohibiting the transport of whole carcasses out of both the IZ and ASZ.
- Deboned meat, processed meat, antlers with cleaned skull plates are considered low to negligible risk.
- Infested or suspect wildlife carcasses completely enclosed in a sealed bag may be acceptable for movement when needed.

#### **Captured Wildlife**

- Consider discontinuing capture and transport of wildlife (e.g. feral swine, deer, etc.) by the public from the IZ and ASZ.
- If public capture and transport of wildlife is allowed, animals should adhere to regulations and policies pertaining to domestic animals outlined in <u>Section 2.5</u> and <u>Section 6</u>.
- Animals from wildlife rehabilitators or nuisance animal control companies in the IZ must be inspected and found free of NWS before movement. Animals should receive treatment prior to movement and/or release.

# 4.4 Management of infested wildlife

#### **Key Points**

- Wildlife reported as having myiasis are likely to have advanced infestations with the presence of third instars (mature larval stage of the screwworm fly) by the time the animal's infestation is severe enough to be noticed and reported.
- Management of wildlife carcasses that may contain screwworm larvae is important. Second and third instar larvae can successfully pupate after leaving a carcass and can contribute to ongoing infestations. This was thought to contribute significantly to previous infestations involving wildlife as noted during the 2016 Florida outbreak in key deer.
- Use of antiparasitic drugs or topical pesticides may be considered in wildlife under some circumstances and will vary depending on regulatory approvals, objectives and triggers for use, species affected and goals of treatment. Currently there are no products registered/labeled for use in wildlife to manage NWS. Products under Emergency Use Authorization or considered extra label use as antiparasitic drugs or pesticides in wildlife should be given serious consideration prior to use in wildlife.
- Active reduction of free-ranging wildlife populations could be considered under very limited circumstances.

#### **Key Activities**

#### Disposal

- When possible, carcasses infested with NWS should be left in place and risks mitigated on-site to avoid unintentionally moving larvae to a new premises/area.
- If movement of an infested carcass is required, it should be treated and placed in a body bag before being transported to an approved disposal site. See disposal guidelines document for more details.
- Disposal should be conducted in accordance with local laws and regulations and as directed by the appropriate authority.

#### **Treatment**

Consider these three categories of wildlife when deciding on when to apply antiparasitic drugs or topical pesticides:

- 1. *Common, free ranging wildlife* (e.g. deer, wild pigs, peri-domestic species, etc.): The primary objective is to reduce myiasis in an already affected population until sterile fly releases are possible.
- 2. Endangered wildlife: Antiparasitic drugs or pesticides may be considered for treatment in endangered wildlife populations to prevent myiasis (i.e. prophylactic treatment) or reduce mortality of affected animals (i.e. therapeutic treatment). Use of antiparasitic drugs in endangered wildlife should be done in consultation with U.S. Fish and Wildlife Service. Specific antiparasitic drugs selected for use would depend on the environment, presence of non-target species, and the target species.

#### **RESOURCES AND TOOLS**

- FADPreP Carcass Management Resources
- Management/Disposal of Carcasses (under development)

- Considerations of Treatment of Wildlife document (under development)
- Considerations on use of antiparasitic drugs and pesticides in wildlife guidance (under development)
- 3. Captive wildlife: Captive wildlife will be easier to treat since they are more likely to be physically handled. These might include animals in zoological or wildlife exhibits, wildlife at rehabilitators, wildlife captured for research purposes, or hunting preserves/facilities. Animals in these environments may be considered for treatment using antiparasitic drugs or pesticides to prevent and/or treat animals affected by NWS. Specific antiparasitic drugs and pesticides as well as method of delivery will depend on the environment (e.g. open-air exhibit), presence of non-target species, and the target species. Treatment of captive wildlife should be done in consultation with USDA.

# Active reduction of free-ranging wildlife populations

- If a particular free-ranging wildlife species is identified as having a high prevalence of myiasis and is unprotected or requested by the state or federal land management agencies for removal, then "local" population reduction may be considered. An example of this might be the increased removal of feral swine in and around the IZ.
- Wildlife host population reduction should be considered only as an additional tool to aid in reducing available hosts when evidence exists that the wildlife species has higher than expected levels of myiasis.
- Wildlife host population reduction should not be used as a primary tool to control infestations and should only be implemented in consultation with State and Federal partners in unprotected wildlife species.

#### **RESOURCES AND TOOLS**

 Trained APHIS WS staff would be able to assist with population reduction when authorized and requested.

# 05

# **IMPLEMENT NWS FLY SURVEILLANCE AND MANAGEMENT STRATEGIES**

## **Key Points**

- Surveillance for NWS flies is used to determine the geographic spread of flies, document the absence of fertile NWS flies (through their absence in traps) in Infested Zones (IZ) and surveillance zones, and to provide evidence of freedom from NWS after sterile fly release is discontinued.
- When sterile insect release is used in coordination with State and Federal authorities by ground, vehicle, or aerial methods, trapping will be used within the response areas to evaluate the release, dispersal, and efficacy of sterile NWS flies.

# 5.1 Establish fly surveillance structure and activities in the Infested Zone and Fly Surveillance Area

# **Key Activities**

- Set and monitor fly traps throughout the IZ and Fly Surveillance Area (FSA) to determine the geographic range of flies, document the presence and absence of wild NWS flies, inform the release, dispersal, and efficacy of sterile NWS flies, and provide evidence of freedom from NWS.
- Establish a new IZ and ASZ for any detection of a wild fly in a fly trap in a new area outside of established zones.
- Results from these activities can be used to inform additional mitigation activities including enhanced on-farm surveillance, wildlife surveillance or the establishment of additional IZ and ASZ or the release of areas from IZ and ASZ.
- Follow standard handling and biosecurity protocols during trap collection and transport to maintain sample integrity and reduce risk of spread.
- Closure of zones and halting surveillance activities will be determined by incorporating fly, domestic animal, and wildlife surveillance information.
- Coordinate with State, Local, Tribal, and Territory (SLTT) and federal partners to align fly surveillance networks with existing vector control, land management, and jurisdictional authorities to maximize coverage and minimize duplication of effort.

#### **RESOURCES AND TOOLS**

• NWS Response: Fly Surveillance & Site Selection Methods

# 5.2 Coordinate and conduct fly surveillance in an affected area

#### **Key Activities**

- Integrate surveillance data from all activities for analysis, visualization, and timely communication to response agencies and stakeholders.
- Collect NWS flies using available methods include luring/baiting flies and catching them with nets or trapping with wind-oriented sticky traps with chemical attractants or other traps.
- Set up traps at varying distances from points of known infestation and account for typical flight distance of NWS flies, preferred habitats, host density/presence, and weather patterns.
- Conduct trapping and surveillance activities in favorable NWS habitats (e.g. edges of wooded areas), and in such a manner that the trapping/surveillance site is located up-wind, so the odor of the attractant carries into the favorable habitat.
- Sort trapped flies at pre-determined labs or designated submission areas.
- Conduct ongoing training for field personnel (strike teams) to integrate into IMT surveillance teams
- Establish mobile field response trailers to support strike teams with resources for trap deployment and SIT and fly identification.
- Ship suspect and presumptive NWS life stages to NVSL for final confirmation.
- Correlate fly surveillance results with concurrent domestic animal and wildlife surveillance data to refine risk assessments and guide control measures.
- Ensure surveillance results and presumptive detections are reported through chains of command in real time.
- Work with SLTT and federal partners to prioritize high-risk locations, facilitate site access, and share real-time data to strengthen surveillance in affected areas.

#### **RESOURCES AND TOOLS**

- USDA APHIS <u>NWS Strategy Plan:</u>
   Quarantine and Movement Control
- NWS Response: Fly Surveillance & Site Selection Methods
- Internal NWS fly trapping and release protocols, as needed

# **Companion Animals**

- Analyze epidemiological data for companion animal infestations to evaluate their potential role in maintaining or spreading NWS.
- Coordinate fly surveillance around companion animals cases (as dictated by epi evaluation) with SLTT partners.

# 5.3 Deploy Sterile Insect Technique (SIT) throughout Adjacent Surveillance Zone and Fly Surveillance Area

# **Key Activities**

- Mitigate and reduce spread of fertile flies using SIT.
- USDA will coordinate ground, air, and truck sterile fly release. Refer to SIT Factsheet for additional details for possible methods to release sterile NWS into the environment.
- Consider SIT in two situations:
- 1. finding NWS larvae in an animal or person that did not travel outside of the United States in the previous 10 days;

- APHIS NWS SIT Factsheet
- Fly Surveillance and selection site document
- Internal SOPs as needed

- 2. finding NWS larvae in an animal or person that did travel outside of the United States in the previous 10 days, with evidence that larvae may have left the host in the United States (e.g., myiasis detected 5 or more days after United States arrival, or collection of NWS pupae) and could complete pupation (e.g., access to soil, favorable local temperatures, suitable seasonal climate).
- Collaborate with SLTT and federal partners to support SIT implementation through coordinated release sites, monitoring, and evaluation of effectiveness.

# 06 MAINTAIN CONTINUITY OF BUSINESS (COB)

#### **Key Points**

- While NWS is a significant threat to all domestic animals, the risk is often greater for farm-raised and wild/feral animals due to outdoor exposure, production or management practices that increase susceptibility to infestation in open wounds, and potential for large-scale economic impact. As such, movement requirements to maintain COB apply to NWS domestic animals located within an NWS Infested Zone (IZ) that are farm-raised or are captured/captive wild or feral animals under permanent or temporary human control.
- Any additional premises or animal types that require NWS health certifications for movement will be specified by the SAHO and APHIS VS.
- Owners of animals located within an NWS IZ and not subject to the below movement requirements, such as companion animals, should contact the destination SAHO office for interstate animal movement requirements.

## 6.1 Implement COB plans to facilitate the managed movement of animals

#### **Key Activities**

- Domestic animal premises not located in an IZ and not identified as Epi-Linked or Suspect Premises, may move in normal channels of intra/interstate commerce, unless otherwise restricted due to a regional quarantine with associated movement requirements. There are no movement requirements for animal movements into an IZ.
- NWS is not a food safety concern; there are no movement requirements for animal products.
- Domestic animal premises subject to movement requirements that are located in an IZ or are Epi-Linked or Suspect Premises require NWS Animal Health Certificates for animal movement out of the zone: an interstate Certificate of Veterinary Inspection (iCVI) for interstate movements and a state-issued NWS animal health certificate for intrastate movements of domestic animals.

- NWS National Continuity of Business: <u>Standardized Animal Health Certificate</u>
   Guidance Document
- USDA APHIS <u>NWS Strategy Plan:</u>
   Quarantine and Movement Control
- Utilize national, standardized COB animal movement requirements for inspecting and/or treating animals before moving them out of an IZ; contact the SAHO office where animals originate for submitting health certificates for movement approval.
- Use SAHO state systems for obtaining health certificates for interstate and intrastate movement of domestic animals out of an Infested Zone.

# 07 ENSURE INFORMATION FLOW AND MANAGEMENT

# 7.1 Record and report NWS Fly Trapping and Sterile Fly Release Activities using USDA's Emergency Management Response System (EMRS) Key Activities

- Manage and track all fly surveillance activities utilizing EMRS, the system of record for all foreign animal disease investigations and incidents.
- Manage and track all Sterile Fly Release activities (ground release) in EMRS.
- Develop NWS map products with data pipelines from EMRS into geodatabases.
- Utilize map tools, such as operational dashboards, StoryMaps, or custom interactive maps for situational awareness or communication with stakeholders and industry. Products will be based on needs identified by internal and external stakeholders.

#### **RESOURCES AND TOOLS**

- SOPs/Guidance documents maintained and kept current in the <u>EMRS NWS</u> <u>Tracking Toolkit</u> (authorized users only)
- USDA APHIS NWS Fly Assessment Form

# 7.2 Record and report domestic and wildlife field data using EMRS

#### **Key Activities**

- Load and collect all domestic and wildlife data into EMRS. Utilize data for outbreak management and data visualization/analysis.
- Document and record any wildlife inspected for evidence of NWS in the APHIS WS Operation and Reporting System (OARS)/EMRS; suspect cases will be tracked in EMRS.
- Develop NWS outbreak map products (including any products needed to support trade) utilizing data from EMRS. Products will be based on needs identified by internal and external stakeholders.

# 7.3 Utilize EMRS to manage and track active and passive surveillance activities

# **Key Activities**

- Track and manage passive surveillance activities in established zones using EMRS.
- Develop EMRS products and procedures as surveillance protocols and policies are established.
- Utilize EMRS as the APHIS VS primary system of record for outbreak management with potential supplementation via third party state or industry systems.

#### **RESOURCES AND TOOLS**

- SOPs/Guidance documents are maintained and kept current in the <u>EMRS NWS Tracking Toolkit</u> (authorized users only)
- USDA APHIS EMRS

- SOPs/Guidance documents are maintained and kept current in the <u>EMRS NWS Tracking Toolkit</u> (authorized users only)
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# 7.4 Utilize EMRS to manage the outbreak and meet national and international reporting requirements

#### **Key Activities**

- Develop internal and external situational reports using USDA APHIS and State/Territory templates and data within EMRS; USDA APHIS will coordinate with affected State and Territory officials on public reporting of the outbreak situation.
- Use of EMRS will be critical for negotiating and reestablishing trade.
- APHIS will submit an immediate notification (IN) to the World Organization for Animal Health (WOAH)
  following the first confirmation of NWS in the United States in an animal. Following the initial immediate
  notification to WOAH, APHIS will submit weekly follow-up reports to WOAH including all confirmed
  detections in domestic and wild species. Positive premises statuses and positive subject statuses as
  recorded in EMRS will be used to provide data for WOAH immediate notifications and follow-up reports.
  Detections in WOAH reports will be identified at the County level. WOAH does not provide specific criteria
  for proof of freedom from NWS.
- Develop NWS map products for national and international reporting needs (as needed and identified).

#### **RESOURCES AND TOOLS**

needed)

- World Organisation for Animal Health <u>Terrestrial Animal Health Code: New</u> World Screwworm
- USDA APHIS <u>NWS Strategy Plan:</u> Information Management
- USDA APHIS <u>NWS Strategy Plan: Criteria</u> for Proof of Freedom from <u>NWS</u> Infestation

# 08

# **IDENTIFY AND MAINTAIN RESOURCE REQUIREMENTS**

# 8.1 Continually assess equipment, supplies and personnel needs

#### **Key Points**

- All resource needs will be identified, evaluated and monitored by the AVIC/SAHO of the affected State or the IMT.
- Submit resource requests through EMRS.

NVS coordinated supplies and equipment

#### **Primary Equipment / Supplies National Veterinary Stockpile (NVS)** NWS Strike Team Lead NWS collection kit items NWS Strike Team Member Fly trapping/surveillance equipment/supplies Sterile Insect Lab Technician • Products to prevent, control, and treat NWS SIT Program Team member infestation Training Coordinator Disposal supplies NWS Case Manager • NWS response trailer supplies • Cold chain equipment/supplies to transport sterile flies for ground and/or air dispersal COR

# Primary Personnel Needs NWS Strike Team Lead NWS Strike Team Member Sterile Insect Lab Technician SIT Program Team member Training Coordinator NWS Case Manager Disease Surveillance / Management Branch Director Disease surveillance group member COR Interdiction Team Member For Federal and State Animal Health Officials with EMRS Access: EMRS 213 RR for NVS Items EMRS 213RR for Personnel NVS Catalog NWS Position descriptions for non-IMT positions (in development) NWS Incident Training portal Internal standard operating procedures for fly surveillance and trapping (as

#### **Primary Equipment / Supplies**

- Fly trapping/surveillance equipment/supplies
- Sterile fly release equipment/supplies
   4 ton or larger truck for hauling

#### **Local Purchases / Contracts**

- Safety items such as bug spray and sunscreen
- Fly trapping equipment/supplies
- Equipment/supplies for building sterile fly ground release chamber
- ¾ ton or larger truck to move refrigerated trailers

### **Local IMT Logistics**

• Identify location where fly trap chemicals can be mixed safely

#### **Primary Personnel Needs**

- Law enforcement officer
- Wildlife Biologists
- Outreach Team member
- IMT Positions

#### **Resources / Tools**

- Infested premises management guidelines (under development)
- FDA Animal Drugs for NWS
- NWS Pesticides
- Considerations for Carcass Disposal (under development)
- FAD Investigation Guide for NWS
- VS Guidance 12001.5 Ready Reference Guide

# Criteria for Releasing an Infested Zone and Demonstrating the Area is Free from NWS<sup>2</sup>

Demonstrating an Infested Zone is free of NWS infestation will be based on surveillance that includes trapping of flies and visual inspection of animals for myiasis. Depending on specific weather and seasonal conditions in the area(s) of infestation, surveillance should be carried out in an Infested Zone for at least 3 months past the last NWS detection, generally 3–4 life cycles (~24 days/life cycle) during an outbreak, before the zone is released.

Additional surveillance for international and bilateral trading partners may be necessary both prior to and after the release of the Infested Zone. The extent, frequency, and type of additional surveillance required will depend on many factors, such as (but not limited to) the density of domestic animals and wildlife in the region, species, epidemiological information, environmental and climatic information, and commodity exported. The objective of this surveillance is to provide evidence of the absence of NWS to satisfy international and bilateral trading partners. Active and passive surveillance schemes may be used.

<sup>&</sup>lt;sup>2</sup> Refer to *Establishing and Releasing NWS Zones and Areas* on NWS FAD PReP Site.

# **Additional Resources**

USDA APHIS FAD PReP: New World Screwworm

USDA APHIS New World Screwworm Disease Response Strategy

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)

APHIS Foreign Animal Disease Framework: Information Management and Reporting (FAD PReP Manual 3-0)

APHIS FAD Investigation Manual (FAD PReP Manual 4-0)

**NAHEMS: Continuity of Business** 

**NAHEMS: Cleaning and Disinfection** 

**NAHEMS:** Disposal

**NAHEMS: Health and Safety** 

**NAHEMS: Personal Protective Equipment** 

NAHEMS: Wildlife Management & Vector Control for FAD Response

The FAD PReP mission is to raise awareness, define expectations, and improve capabilities for FAD preparedness and response.

For more information, please go to <a href="https://www.aphis.usda.gov/animal-emergencies/fadprep">www.aphis.usda.gov/animal-emergencies/fadprep</a>.

# **Definitions**

Adjacent Surveillance Zone (ASZ) – Zone that immediately surrounds an Infested Zone. The perimeter should be between 21 to 40 km (~13.05 to 24.85 miles) beyond the Infested Zone.

**Domestic animals** – all warm-blooded animals except humans; includes:

- Livestock, Production, and Farm-Raised Animals: includes cattle, swine, sheep, goats, poultry, equids, and captured/captive wild and feral animals such as captive cervids.
- Companion Animals: includes animals considered as pets, such as dogs, cats and rabbits.

**Epidemiologically-linked (epi-linked) traced premises/ or animal movement traced premises –** animal movement tracing and tracing of other epidemiological linked animals or materials as needed.

**Farm-Raised animals** – Animals raised or maintained in captivity for the production of meat or other agricultural products, for sport, for exhibition breeding, or for recreation. Includes cattle, swine, sheep, goats, poultry, and equine.

Fly Surveillance Area (FSA) – Area that is between 0 to 200 km (~124.27 miles) from the Infested Premises, location of infested wildlife, or NWS wild fly detections. The FSA overlaps the Infested and Adjacent Surveillance Zones. The actual size and border of the FSA will be based on an assessment of suitable habitat and the geographic range of flies for the area.

Infested Premises (IP) – Premises where there is at least one presumptive positive case or NVSL confirmed positive case of a domestic animal infested with the larvae of NWS.

**Infested Zone (IZ)** – Zone that is at least 20 km (~12.43 miles) beyond the perimeter of an Infested Premises, location of infested wildlife, or location of NWS wild fly detections.

**Movement requirements** – refers to animal movement requirements based on criteria to support continuity of business during an NWS outbreak. For NWS, this is accomplished through issuance of animal health certifications with inspection ± treatment requirements before moving animals to mitigate the spread of NWS to new premises/areas.

NWS detection – see NWS Case Definition: <a href="www.aphis.usda.gov/sites/default/files/nws-ows-case-definition.pdf">www.aphis.usda.gov/sites/default/files/nws-ows-case-definition.pdf</a>

Quarantine – refers to imposing restrictions or requirements on entering or leaving a premises, area, or region where NWS exists or is suspected.

**NWS establishment** – a self-sustaining and reproducing NWS population that is present and active in an area. Includes introduction of the pest into the United States that as progressed from an isolated, contained case to a reproducing population. NWS establishment indicates an NWS outbreak.

**NWS** isolated case – one where the confirmed infestation is contained to the initial finding, such as a single animal or person, and does not indicate a wider, self-sustaining NWS pest population in the area. Key characteristics of an isolated case include travel-associated cases and early case detection and treatment preventing larval development in the area as demonstrated through surveillance. The case must have a history of movement from an Infested Zone or country recognized as affected with NWS to be designated as an NWS isolated case.

**State animal health official (SAHO; <u>usaha.org/saho/</u>)** – The lead animal health official for a state. The key point of contact and primary USDA APHIS partner on all animal disease-related matters within the state.

**Sterile Insect Technique (SIT)** – Sterile insect technique (SIT) is a mitigation activity to reduce the number of fertile flies within and around the IZ and contain spread if it is determined that a population of NWS is present, or may be in the process of developing, within the United States. SIT is considered an environmentally friendly pest control method because it is species-specific and leaves no chemical residues.

**Temporary animal aggregation point** – premises or locations where animals are temporarily brought together for a short period of time for a specific purpose, such for sale, transport, or health inspection. Examples include livestock markets, saleyards, auctions, buying stations, and exhibitions.

Warm-blooded animals (Endotherms) – All mammals, including humans, and birds are warm-blooded. All warm-blooded animals can become infested with NWS.

**Wildlife** – Any animal which is now or historically has been found in the wild, or in a wild state, within the boundaries of the United States, its territories, or possessions. Any warm-blooded species including, but is not limited to, deer, skunk, raccoon, and coyotes are NWS susceptible.

Captive wildlife/captive wild or feral animals – any wild or feral animal maintained in captivity for exhibition, sale, personal use, propagation, preservation, rehabilitation, protection or hunting purposes. Wildlife that is held in captivity, physically restrained, confined or impaired or deterred so that it is prevented from an unobstructed return or moving freely in the wild. This includes captive cervids or nilgai, zoos, circuses, research facilities, fenced hunting preserves, or private ownership.

**Captured wildlife** – free-ranging wild or feral animals that are under temporary human control, such as for transport.