



# Foreign Animal Disease (FAD) Response

## Ready Reference Guide—Zone, Area, and Premises in an FAD Outbreak

Infected, Contact, and Suspect Premises are subject to individual premises quarantine.

At-Risk and Monitored Premises are subject to movement control restrictions.

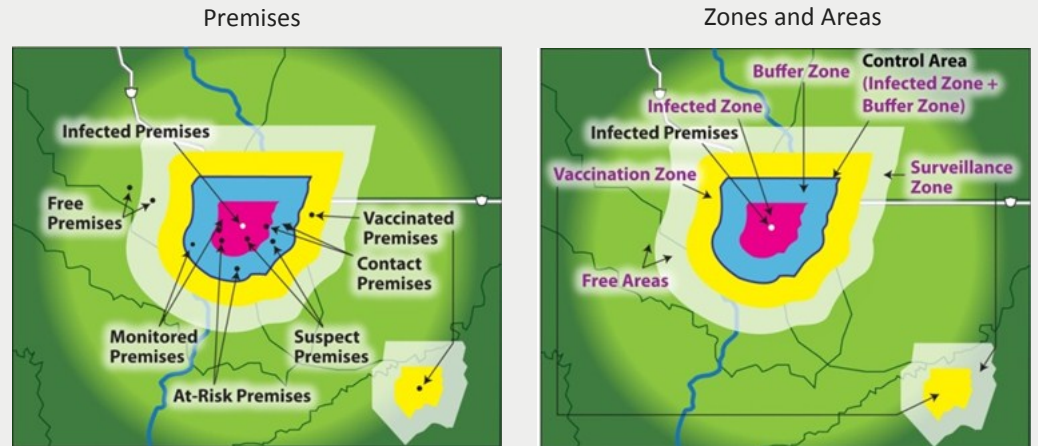
### Summary of Premises Designations

| Premises                 | Definition   | Zone  |
|--------------------------|--|---|
| Infected Premises (IP)   | Premises where a presumptive positive case or confirmed positive case exists based on laboratory results, compatible clinical signs, case definition, and international standards.   | Infected Zone   |
| Contact Premises (CP)    | Premises with susceptible animals that may have been exposed to the FAD, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from Infected Premises.  | Infected Zone, Buffer Zone                                      |
| Suspect Premises (SP)    | Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with the FAD. This is intended to be a short-term premises designation.   | Infected Zone, Buffer Zone, Surveillance Zone, Vaccination Zone |
| At-Risk Premises (ARP)   | Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with the FAD. Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. At-Risk Premises seek to move susceptible animals or products within the Control Area by permit. Only At-Risk Premises are eligible to become Monitored Premises. | Infected Zone, Buffer Zone                                      |
| Monitored Premises (MP)  | Premises objectively demonstrates that it is not an Infected Premises, Contact Premises, or Suspect Premises. Only At-Risk Premises are eligible to become Monitored Premises. Monitored Premises meet a set of defined criteria in seeking to move susceptible animals or products out of the Control Area by permit.   | Infected Zone, Buffer Zone                                      |
| Free Premises (FP)       | Premises outside of a Control Area and not a Contact or Suspect Premises.  | Surveillance Zone, Free Area                                    |
| Vaccinated Premises (VP) | Premises where emergency vaccination has been performed. This may be a secondary premises designation.   | Containment Vaccination Zone, Protection Vaccination Zone       |

### Summary of Zone and Area Designations

| Zone/Area              | Definition  |
|------------------------|---|
| Infected Zone (IZ)     | Zone that immediately surrounds an Infected Premises.   |
| Buffer Zone (BZ)       | Zone that immediately surrounds an Infected Zone or a Contact Premises.   |
| Control Area (CA)      | Consists of an Infected Zone and a Buffer Zone.   |
| Surveillance Zone (SZ) | Zone outside and along the border of a Control Area.  |
| Free Area (FA)         | Area not included in any Control Area.  |
| Vaccination Zone (VZ)  | Emergency Vaccination Zone classified as either a Containment Vaccination Zone (typically inside a Control Area) or a Protection Vaccination Zone (typically outside a Control Area). This may be a secondary zone designation. |

### Example Zones, Areas, and Premises



Note: Figures are not to scale. The Vaccination Zone can be either a Protection Vaccination Zone or Containment Vaccination Zone.



In an FAD outbreak, the Incident Commander will work with the Disease Surveillance Branch and the Situation Unit to determine the appropriate designations.



## FAD Response

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#### Factors Used to Determine Control Area Size

| Factors  | Additional Details   |
|--|--|
| Jurisdictional areas                                     | <ul style="list-style-type: none"> <li>Effectiveness and efficiency of administration</li> <li>Multi-jurisdictional considerations: local, State, Tribal, and multistate</li> </ul>  |
| Physical boundaries                                      | <ul style="list-style-type: none"> <li>Areas defined by geography</li> <li>Areas defined by distance between premises</li> </ul>   |
| FAD epidemiology   | <ul style="list-style-type: none"> <li>Reproductive rate</li> <li>Incubation period</li> <li>Ease of transmission</li> <li>Infectious dose</li> <li>Species susceptibility</li> <li>Modes of transmission (such as, fecal-oral, droplet, aerosol, vectors)</li> <li>Survivability in the environment</li> <li>Ease of diagnosis (for example, no pathognomonic signs; requires diagnostic laboratory testing)</li> <li>Age of lesions</li> </ul> |
| Infected Premises characteristics                        | <ul style="list-style-type: none"> <li>Number of contacts</li> <li>Transmission pathways and transmission risk               <ul style="list-style-type: none"> <li>Extent of animal movement</li> <li>Number of animals</li> <li>Species of animals</li> </ul> </li> <li>Age of animals</li> <li>Movement of traffic and personnel to and from premises (fomite spread)</li> <li>Biosecurity measures in place at time of outbreak</li> </ul>   |
| Contact Premises characteristics                         | <ul style="list-style-type: none"> <li>Number and types of premises</li> <li>Susceptible animal populations and population density</li> <li>Animal movements</li> <li>Movement of traffic (fomites) and personnel to and from premises (fomite spread)</li> <li>Biosecurity measure in place prior to outbreak</li> </ul>  |
| Environment  | <ul style="list-style-type: none"> <li>Types of premises in area or region</li> <li>Land use in area or region</li> <li>Susceptible wildlife and population density</li> <li>Wildlife as biological or mechanical vectors</li> </ul>   |
| Climate (for aerosol spread diseases)                    | <ul style="list-style-type: none"> <li>Prevailing winds</li> <li>Humidity</li> </ul>   |
| General area, region, or agricultural sector biosecurity | <ul style="list-style-type: none"> <li>Biosecurity practices in place prior to outbreak</li> <li>Biosecurity practices implemented once outbreak detected</li> </ul>   |
| Number of backyard or transitional premises              | <ul style="list-style-type: none"> <li>Types of premises, animal movements, and network of animal and fomite movements</li> </ul>  |
| Continuity of business                                   | <ul style="list-style-type: none"> <li>Continuity of business plans and processes in place or activated at beginning of outbreak (such as surveillance, negative diagnostic tests, premises biosecurity, and risk-assessments)</li> <li>Permit processes, memorandums of understanding, and information management systems in place or activated at beginning of outbreak</li> </ul>   |

#### Minimum Sizes of Zones and Areas

| Zone or Area           | Minimum Size and Details  |
|------------------------|---|
| Infected Zone (IZ)     | Perimeter should be at least 3 km (~1.86 miles) beyond perimeters of presumptive or confirmed Infected Premises. Will depend on disease agent and epidemiological circumstances. This zone may be redefined as the outbreak continues.                        |
| Buffer Zone (BZ)       | Perimeter should be at least 7 km (~4.35 miles) beyond the perimeter of the Infected Zone. Width is generally not less than the minimum radius of the associated Infected Zone, but may be much larger. This zone may be redefined as the outbreak continues. |
| Control Area (CA)      | Perimeter should be at least 10 km (~6.21 miles) beyond the perimeter of the closest Infected Premises. Please see the table to the left for factors that influence the size of the Control Area. This area may be redefined as the outbreak continues.       |
| Surveillance Zone (SZ) | Width should be at least 10 km (~6.21 miles), but may be much larger.   |

For more information, please go to:

<https://fadprep.lmi.org>

(request username and password), or

<http://inside.aphis.usda.gov/vs/em/fadprep.html>

(for APHIS employees).

