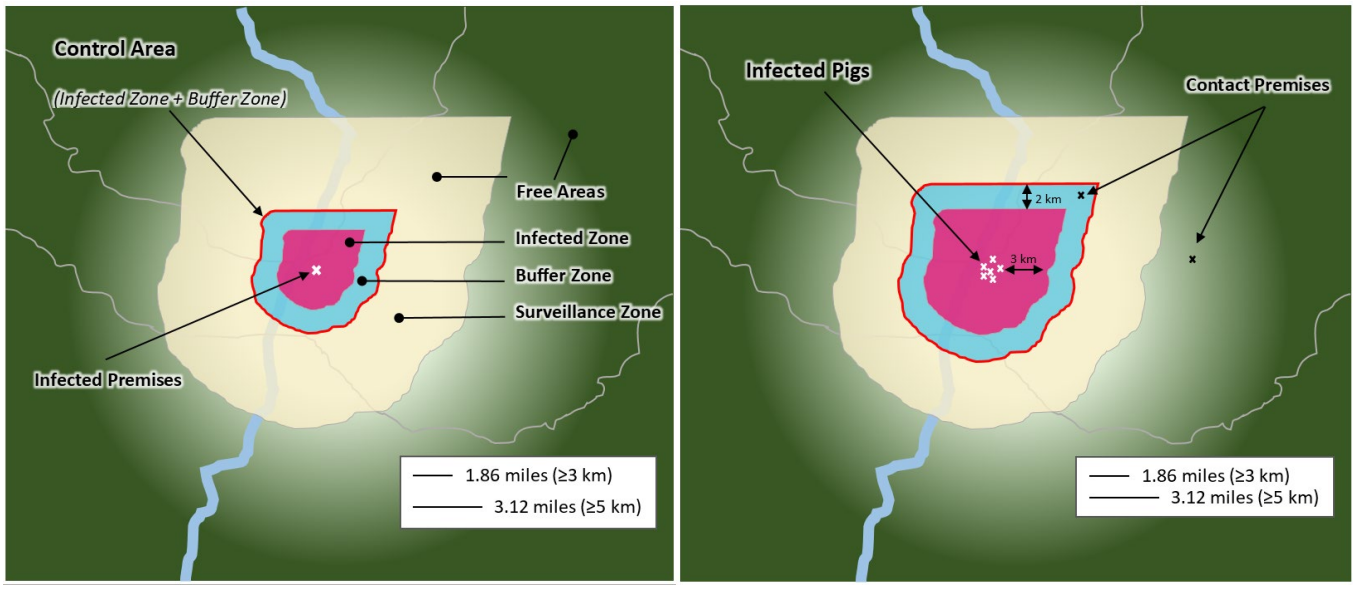
Zones and Areas | *Feral Pigs**



* The minimum Infected Zone is 3 kilometers; however, when multiple pigs are found nearby on the landscape the Infected Zone will be adjusted to incorporate all pigs, which potentially can result in a larger Infected Zone.

Summary of ASF Zone and Area Designations

Zone/Area	Definition
Infected Zone (IZ)	Zone that immediately surrounds an Infected Premises or Infected Pig(s)
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. The Surveillance Zone is part of the Free Area. More frequent sampling throughout the quarantine period is recommended.
Free Area (FA)	Area not included in any Control Area. Includes the Surveillance Zone.

Summary of Key Response Actions

Swine Population Infected	State – Tribal Quarantine of Infected Premises	Control Area Plus Network Based Controls	USDA Extraordinary Emergency Declaration	72 hour National Movement Standstill
Feral Swine Only	N/A	Control Area + Network Based Controls*	Yes	Yes

*Epidemiological investigation to ensure infected feral swine are in their biological home range and have not been moved by human activity out of the Control Area. Domestic swine in Control Area are subject to movement control and surveillance activities.

For more information, please go to: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management/african-swine-fever/african-swine-fever

For more details on zones and premises designations, please see the APHIS FAD Framework: Response Strategies (Manual 2-0)

For the ASF Response Plan: The Red Book, click here.

Zones and Network Based Controls

Factors to Consider in Determining Control Area Size for ASF

Factors	Additional Details
Jurisdictional areas	◆ Effectiveness and efficiency of administration ◆ Multi-jurisdictional considerations: local, State, Tribal, and multistate
Physical boundaries	◆ Areas defined by geographic features ◆ Areas defined by manmade structures ◆ Areas defined by distance between premises
ASF epidemiology	◆ Reproductive rate ◆ Incubation period ◆ Ease of transmission ◆ Infectious dose ◆ Modes of transmission (contact with secretions, excretions, fomites, vectors) ◆ Survivability in the environment ◆ Ease of diagnosis (for example, no pathognomonic signs; requires diagnostic laboratory testing)
Infected Premises characteristics	◆ Number of contacts ◆ Transmission pathways and transmission risk • Extent of animal movement • Number of animals • Species of animals • Production stage • Movement of traffic and personnel to and from premises (fomite spread) • Biosecurity measures in place at time of outbreak
Contact Premises characteristics	◆ Number and types of premises ◆ Susceptible animal populations and population density ◆ Animal movements ◆ Critical movements (e.g., feed) ◆ Movement of traffic (fomites) and personnel to and from premises (fomite spread) ◆ Biosecurity measures in place prior to outbreak
Environment	◆ Types of premises in area or region ◆ Land use in area or region
General area, region, or agricultural sector biosecurity	◆ Biosecurity practices in place prior to outbreak ◆ Biosecurity practices implemented once outbreak detected
Number of backyard premises	◆ Types of premises, animal movements, and network of animal and fomite movements
Feral Swine	◆ Presence/absence of populations ◆ Population density ◆ Estimates of home range size ◆ Number of ASF positive carcasses ◆ Presence of feral swine markets or slaughter facilities

Minimum Size 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 or Infected Pigs based on epidemiological circumstances. This zone may be redefined as the outbreak continues.
Buffer Zone (BZ)	Perimeter should be at least 2 km (~1.24 miles) beyond the perimeter of the IZ. Width is generally not less than the minimum radius of the associated IZ, but may be much larger. This zone may be redefined as the outbreak continues.
Control Area (CA)	Perimeter should be at least 5 km (~3.12 miles) beyond the perimeter of the closest Infected Premises or Infected Pig. Please see Table 4-6 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 5–10 km (~3.12 miles to ~6.21 miles) beyond the Control Area.

Since an ASF outbreak in feral swine would involve more than one pig, and feral swine are free ranging animals, the IZ would likely be larger than the 3 kilometer minimum recommendation around a single index case. The initial IZ would encompass all ASF-positive feral swine cases and expand beyond the home range size for the affected population(s) of feral swine. Although the average range for feral pigs is approximately 1.5 to 3 square kilometers, home ranges vary widely, based on factors such as resources, climate, and habitat. Therefore, the exact size of the Control Area(s) will be determined by wildlife experts after initial assessment.

Additional work on feral swine contact networks indicate that disease transmission is uncommon between feral swine that are more than 2 kilometers apart. The resulting IZ would therefore extend at least 3 kilometers out in all directions from the feral swine index case with adaptations for natural and manmade landscape features. Some regions also have additional feral swine data available that could be used in the event of an outbreak to refine both home range estimates and the size of the IZ.

The BZ will expand proportionally with increases in the IZ so that it always provides a buffer equivalent to at least 2 kilometers surrounding the IZ. The BZ will indicate an area of increased ASF risk where no positive feral swine have been detected. Additionally, there will be a SZ of at least 5 kilometers surrounding the BZ. These zones will be adapted as the incident progresses, in addition to changes in epidemiology.