

# Feral Swine Management at Felsenthal National Wildlife Refuge



*Feral swine are rapidly expanding their distribution and numbers throughout the United States. In Arkansas, feral hogs are found in every county, and they have become a major pest in the Natural State's forests, wetlands, and fields.*



*Feral hogs digging in a field; credit NASA.*

## The Problem

Feral swine (*Sus scrofa*) are descendants of escaped or released pigs. They are not native to North America and often are a hybrid of domestic hogs and introduced Russian boars.

This destructive invasive species can change entire ecological systems. Feral swine directly compete with many native animals such as deer, squirrels, ducks, turkeys, and bears. They are omnivorous with a diet that includes ground-nesting birds like northern bobwhite and wild turkey, reptiles, and amphibians. Hogs dig for food and create wallows, destroying vegetation in wetland and

forest habitats and ruining water holes used by other wildlife. Feral swine pollute streams and ponds and damage forests and crops, costing Arkansas producers approximately \$19 million each year.

To compound the problem, feral hogs are the most prolific wild mammal in North America. Hog populations have the capability of doubling every four months. They have few natural predators and high survival rates.

impacts to acceptable levels, and where possible, completely eradicate them. The U.S. Fish and Wildlife Service (Service) utilizes a multifaceted approach of various removal methods on both small and large scales by staff and partners.

Felsenthal National Wildlife Refuge (NWR or refuge) has devoted significant funding and staff time to feral swine removal. The refuge removes approximately 200-400 hogs annually. The refuge has increased its removal of these destructive animals by utilizing trapping, opportunistic removal, night operations and aerial gunning. Combining all of these strategies during high-water periods, especially in February and March, significantly increases efficiency.



*Wallowing activities by feral hogs cause property damage, soil compaction and erosion, credit: USDA APHIS/Tyler Campbell.*



*Feral hogs damage crops across Arkansas, costing producers millions each year; credit: USDA APHIS/Tyler Campbell.*

## Removal Strategies

Feral hog management programs on national wildlife refuges in Arkansas aim to reduce numbers to levels that minimize



*Aerial gunning is an efficient way to remove feral swine; credit: USFWS.*

Felsenthal NWR faces a significant challenge in controlling feral swine due to variable management approaches on adjacent lands. A recently approved acquisition of over 9,200 acres will expand the refuge's footprint for managing hogs. Like other private lands surrounding the refuge, the added tracts were not actively managed for feral swine. Moving forward, Felsenthal NWR will deploy its various resources and tools to actively remove hogs from the acquired land.

**Removal Results**

Felsenthal NWR has removed 270 feral hogs so far this fiscal year. Aerial operations took nearly three dozen hogs from the refuge's small fields this year. Flood waters have pushed feral swine off the refuge. Since hogs are not good swimmers, flood waters can concentrate hogs on islands and higher ground which improves removal efforts.



*Feral swine eat and destroy field crops such as corn, rice, and wheat; credit: USDA APHIS/ Craig Hicks.*



*Trapping is an effective method to remove feral hogs from Felsenthal NWR; credit: USFWS*

**Research and Monitoring**

Felsenthal NWR has deployed numerous resources to research and monitor feral swine. The refuge has deployed 70 cameras and two GPS collars to track hog movement on and off refuge. Additionally, the refuge hired a Pathways graduate student to conduct a research project that will provide a better understanding of feral hog diets and distributions.

The Service is providing funding (\$18,400) to the University of Arkansas for research on feral swine impacts to forest resources at Felsenthal NWR. As part of this effort, a wildlife management technician is providing on-the-ground trapping support to the refuge. Additionally, the Arkansas Game and Fish Commission (AGFC), the Arkansas Cooperative Fish and Wildlife Research Unit, and the University of Arkansas-Monticello are proposing wild

pig research on population abundance and genetic diversity. The refuge would be one of the study sites if the research is funded.

**Collaborative Management**

Felsenthal NWR is working with its neighbors, state and federal agencies, and others on a landscape approach for controlling feral hogs.

The Service is working closely with USDA APHIS Wildlife Services on feral swine control in Arkansas. The two agencies are establishing an interagency agreement for hog removal at Felsenthal NWR. If funded, this five-year project will cost share \$100,000 towards a dedicated technician for trapping efforts on the refuge. Adjacent landowners may enter into cooperative agreements with Wildlife Services to assist with hog control on private lands.



*Feral hog; credit USDA APHIS/Laurie Paulik*

**Feral Swine Control Resources**

- Two-three employees
- \$55,000 FY20 invasive species funding
- \$100,000 Interagency agreement with Wildlife Services
- \$18,400 University of Arkansas for research
- \$24,000 CESU research grant
- Seven corral traps
- 15 box traps
- 70 cameras
- Two GPS collars

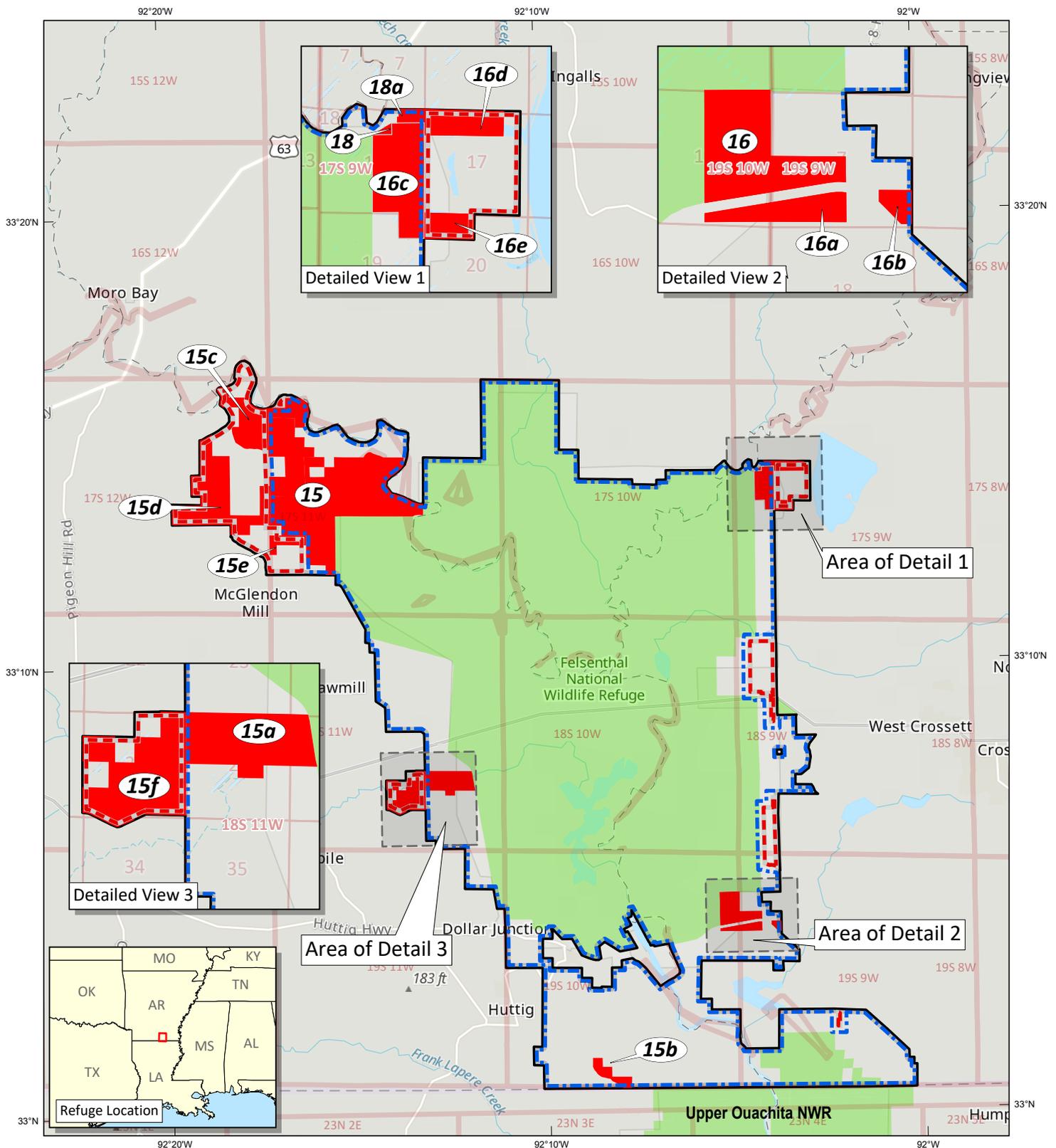
The Service also is cooperating with AGFC on feral hog management. AGFC is trapping on state lands adjacent to Felsenthal NWR. The Service has aligned its hog hunting regulations on national wildlife refuges in Arkansas with those implemented by AGFC on its wildlife management areas. The refuge does not trap hogs in October and November due to the quota deer hunts when hunters can take hogs. The Service limits public take of federal hogs on refuges as requested by AGFC. Incidental take of feral hogs is allowed during gun and muzzleloader season for deer and by archery from November 1-December 31.

**Contact Information**

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The addition of more than 9,200 acres to Felsenthal NWR (shaded in red) will provide increased management ability for feral swine and protect forest habitat for migratory birds and other wildlife.



- MBCC Approved Boundary
  - Boundary to be Approved
  - Approved Acquisition Boundary
  - Previously Acquired - Fee
  - For Approval - Fee
- 5/20/2020 Date of MBCC Meeting

Produced in the Division of Realty  
 Atlanta, Georgia  
 Land Status Current To: 12/10/2019  
 Map Date: 4/29/2020  
 Basemap: ESRI Vector Base v2, FWS, BLM PLSS  
 Web Mercator Projection  
 NAD 83

