



Department of Energy
National Nuclear Security Administration
Savannah River Site
P.O. Box A
Aiken, South Carolina 29802



DOE/EA-2243-SA-1

Supplement Analysis for Continued Feral Swine Damage Management at Savannah River Site

Introduction

The U.S. Department of Energy (DOE)/National Nuclear Security Administration (NNSA) has prepared this Supplement Analysis (SA) to evaluate an existing environmental assessment (EA) and Finding of No Significant Impact (FONSI) (listed below) in light of changes that could have bearing on the potential environmental impacts previously analyzed. Based on the analysis in DOE/EA-2243, Final EA for Feral Swine Damage Management (FSDM) in South Carolina (Final FSDM EA), DOE determined that the proposed action was not a major federal action significantly affecting the quality of the human environment within the context of National Environmental Policy Act (NEPA); therefore, the preparation of an Environmental Impact Statement (EIS) was not required. This SA provides sufficient information for DOE to determine whether the existing Final FSDM EA remains adequate, whether to prepare a new EA, revise the Finding of No Significant Impact (FONSI), or prepare an EIS, as appropriate.

Existing EA and FONSI evaluated in this SA:

- *Final Environmental Assessment for Feral Swine Damage Management in South Carolina* (Final FSDM EA) (DOE/EA-2243), <https://www.energy.gov/nepa/articles/doeea-2243-adoption-environmental-assessment-and-issuance-finding-no-significant>.
- *Adoption of Environmental Assessment and Issuance of a Finding of No Significant Impact Feral Swine Damage Management in South Carolina* (DOE/EA-2243 Final FSDM FONSI), <https://www.energy.gov/sites/default/files/2024-01/fonsi-ea-federal-swine-damage-mgmt-2024-01.pdf>.

Changes to Proposed Action or New Circumstances or Information

This SA was prepared in order to expand feral swine removal via aerial shooting into areas on the Savannah River Site (SRS) damaged by feral swine not previously analyzed in the Final FSDM EA.

The U.S. Forest Service – Savannah River (USFS-SR) proposes to continue its agreement with the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) for the Wildlife Services (WS) program to conduct periodic feral swine removal **events** via aerial shooting across SRS. The pilot removal program evaluated in the Final FSDM FONSI was limited to identified seven wildlife compartments southwest of Highway (Hwy) 125 including the Savannah River Swamp area on SRS during the winter season.

The pilot project proved safe, effective, and efficient, with a reduction rate in the population comparable to, if not better than, the current ground-trapping program. Subsequent aerial shooting operations could occur during all reasonable seasons. The time frame would be dependent upon visibility, availability, and need. Visibility would be commonly best during leaf-off conditions but could occur at other times if conditions are suitable. Aerial operations would be limited to visual flight rules, and WS personnel would not conduct aerial operations in high winds or at times when animals were not easily visible. The USFS-SR would be required to identify targeted areas for approval via the site's internal land use planning process prior to each event cycle (typically for a 4-month period). Internal stakeholders and subject matter experts review such requests and impose site-specific restrictions/conditions for each event cycle, as appropriate.

Background

Feral swine are a national problem and a species that is otherwise difficult to control. They have a very high reproductive rate, thrive on large tracts of land, can become resistant to ground control techniques ("trap-wise"), and cause substantial damage to property. SRS is home to a significant feral swine population (approximately 5,000 feral swine). Segments of the population reside in inaccessible areas of the site, degrading remediation projects and creating damage and safety concerns on- and off-site. SRS continues to install fences to keep feral swine out of remediation areas on SRS; further, the adjacent Three Rivers Landfill and bordering farmers note damage from swine originating from SRS. USFS-SR actively traps feral swine (approximately 1,000 – 2,000/year) to reduce the population impacts on SRS. Varying control methods reduces the likelihood of developing "trap-wise" populations.

The USDA APHIS funds and operates a national aerial control program to provide assistance to governmental, Tribal, and private entities to address specific local feral swine damage. WS makes recommendations to these entities on the type and level of assistance in developing a damage management strategy based on the entity's specific circumstances.

The Final FSDM FONSI assessed the potential environmental impacts of WS conducting removal of feral swine on SRS limited to seven wildlife compartments southwest of Hwy 125 including the Savannah River Swamp area. Aerial operations took place via helicopter.

The pilot project USFS-SR conducted during January and February 2024 yielded in removal of 249 hogs on SRS. Further, no safety incidents occurred, and no adverse environmental impacts (i.e., no releases, no damage to or loss of non-target species, etc.) were encountered. DOE noted in the Final FSDM FONSI that it would assess the effectiveness of WS' removal efforts under this pilot project at SRS and determine whether recurring action is needed in the future.

Resource Areas Not Analyzed in this SA

The following resource areas will not be affected by the proposed change or new information and, therefore, are not analyzed in this SA: geology, visual resources, prime and unique farmlands, timber and range, and waste generation.

Resource Areas Analyzed in Detail in this SA

The resource areas in Table 1 are analyzed in detail in this SA.

Resource Area	<i>Table 1 - Comparison of Potential Environmental Impacts</i> Summary of Potential Impacts in DOE/EA-2243, <i>Final EA and FONSI for Feral Swine Damage Management in SC.</i>	Summary of Potential Impacts as a Result of Changes to the Proposed Action	Difference in Potential Impacts
Land Use and General Site Description	The remote forested area southwest of Hwy 125 on SRS incorporating the seven compartments is closed to the public and includes the Savannah River Swamp. The 23,298-acre area has reduced remote worker activity relative to the other site area and consists of pine and hardwood forests. The proposed action provided additional control measures in remote areas, including some that are difficult to access.	The 198,000-acre SRS includes approximately 170,000 forested acres. Aside from Hwy 125 and 278, SRS is access restricted and is impacted by feral hogs. Due to the large tracts of land and remote nature, expanding the proposed action across SRS increases the ability to control negative impacts from feral swine.	Negligible difference in potential impact
Human Health	Not previously assessed.	Human exposure is not likely due to (1) public access being limited at SRS, (2) the proposed action taking place in locations and during times in which access by the general workforce will be restricted, and (3) a small number of carcasses anticipated to be located any one area. The general workforce will be notified via advanced site communications when WS aerial operations would be conducted, and access to targeted areas will be restricted during WS aerial operations. Carcasses produced by the proposed action would not be concentrated in any one area due to the behavioral nature of feral swine (i.e., animals will disperse during the removal activity). Quantities will be similar to terrestrial control methods but will have a wider distribution on the SRS landscape. Naïve personnel encountering carcasses is unlikely due to the SRS access restrictions.	Negligible difference in potential impact
Biological Resources	No threatened or endangered species have been documented in any of the seven wildlife management compartments on SRS targeted for aerial shooting. WS discussed with DOE-Savannah River Operations	Aircraft will be excluded from active eagle and osprey nests. Aircraft will also be excluded from active RCW habitat during the breeding season from April 15 to July 1 each year. Buffers will be maintained per current U.S. Fish	Negligible difference in potential impact

Resource Area	Summary of Potential Impacts in DOE/EA-2243, <i>Final EA and FONSI for Feral Swine Damage Management in SC.</i>	Summary of Potential Impacts as a Result of Changes to the Proposed Action	Difference in Potential Impacts
	Office (SROO) ¹ the standard operating procedures that APHIS-WS personnel will follow to prevent and reduce any potential adverse effects on non-target animals (i.e., non-feral swine).	and Wildlife Service recommendations.	
Water Resources	The potential impacts from nontoxic ammunitions proposed to be used for feral swine removal on SRS to site water resources would be far less than those evaluated in the EA for the lead ammunitions. Impacts from accidental fuel/oil spills from helicopters being deployed for aerial shooting is anticipated be small and insignificant with respect to the potential for environmental damage (volume of fuel/oil potentially released, etc.). The risk to drinking water is expected to be exceedingly low to nonexistent as the seven targeted wildlife management compartments are in a remote area on SRS and not in the vicinity of any known drinking water supplies.	Potential impacts to site water resources would be incremental and far less than those evaluated in the EA. Further potential impacts to site water resources are reduced by the beneficial effect of reducing the feral swine population.	
Floodplain/Wetland	No jurisdictional waters were determined to be present in the seven targeted SRS wildlife management compartments, thereby eliminating jurisdictional water impacts.	Any SRS jurisdictional wetlands in an area targeted for aerial shooting will not be adversely impacted. The proposed activity would result in less soil and vegetation disturbance through reduced feral hog population.	Negligible difference in potential impact
Air Quality and Climate Change	Given the scale and duration of the proposed action on SRS, the potential impacts on atmospheric conditions including the global climate would be less than the negligible effect evaluated in the EA. Direct and indirect emissions of greenhouse gases would be de minimis.	SRS and USFS operate helicopters on site for a combined approximate 400 days per year. This proposed activity is less than 4% of that total with an airframe approximately 150% more fuel efficient than the SRS airframe. Any potential increase in air emissions would be incremental. The potential impacts on atmospheric conditions including the global climate would be less than the negligible effect evaluated in the EA. Direct and indirect emissions of greenhouse gases would be de minimis.	Negligible difference in potential impact

¹ DOE-SROO: DOE-SROO had landlord responsibilities for SRS at the time the pilot project was conducted in January and February 2024. As of October 1, 2024, SRS landlord responsibilities from DOE-SROO (under the Office of Environmental Management) to DOE/NNSA Savannah River Field Office.

Resource Area	Table 1 - Comparison of Potential Environmental Impacts Summary of Potential Impacts in DOE/EA-2243, Final EA and FONSI for Feral Swine Damage Management in SC.	Summary of Potential Impacts as a Result of Changes to the Proposed Action	Difference in Potential Impacts
Cultural Resources	The Savannah River Archaeological Research Program has completed archaeological surveys of the seven targeted SRS wildlife management compartments, and no archaeological resources were found.	Implementation of the site's internal land use planning process prior to each event cycle would identify known cultural sites (cemeteries etc.) to be avoided. WS personnel using firearms in aerial operations are highly trained and skilled and the potential of incidental damage is reduced by the beneficial effect of reducing the feral swine population.	Negligible difference in potential impact
Socioeconomic Resources	No impact on SRS workforce as the proposed action will be conducted by APHIS-WS personnel. The proposed action will not result in off-site impacts, therefore there would be no disproportionate and adverse effects on communities with environmental justice concerns.	No change in impacts to SRS workforce as APHIS-WS personnel will conduct aerial shooting operations. The proposed action will not result in off-site impacts, therefore there would be no disproportionate and adverse effects on communities with environmental justice concerns.	No difference in potential impact
Noise	Not previously accessed.	WS utilizes Light Utility helicopters such as the EC130 and Bell 206. This size class of helicopters are among the quietest in operation. Further, the amount of time WS will spend conducting aerial operations is only a fraction of the total SRS aerial operations (see Air Quality and Climate Change above). Suppressed firearms would be used to minimize the noise associated with the discharge of a firearm. Any potential increase in noise would be incremental.	Negligible difference in potential impact
Soils	Not previously accessed.	WS utilizes highly trained and highly proficient personnel, so the likelihood of ammunitions being deposited into the soils is minimal. Any incidental deposition and disturbance are reduced by the beneficial effect of reducing the feral swine population.	Negligible difference in potential impact
Cumulative Impacts	The potential negligible effects on biological resources (non-target animals) water resources, and air quality and climate change from the proposed action will have no significant cumulative impacts on SRS natural resources management practices and poses a potential positive cumulative impact in as much as environmental and property	No adverse impacts to biological, water, or air resources. No human health or safety concerns would be created. Any incremental cumulative impacts would be reduced by the beneficial effect of reducing feral swine damage to property and the environment on and off SRS.	Negligible difference in potential impact

<i>Table 1 - Comparison of Potential Environmental Impacts</i>			
Resource Area	Summary of Potential Impacts in DOE/EA-2243, <i>Final EA and FONSI for Feral Swine Damage Management in SC.</i>	Summary of Potential Impacts as a Result of Changes to the Proposed Action	Difference in Potential Impacts
	damage will likely be greatly minimized with improved management of feral swine on SRS.		

Mitigation

Because the new circumstances are similar in nature to the existing potential environmental impacts based on this analysis, DOE/NNSA determined, consistent with the Final FSDM EA, that no additional mitigation measures are required.

Determination

In accordance with DOE's NEPA implementing regulations, and consistent with the *NEPA Recommendations for the Supplement Analysis Process*, 2nd Edition, DOE/NNSA prepared this SA to evaluate whether the existing Final FSDM EA and FONSI remain adequate or whether the proposal for the USFS-SR to enter into an agreement with APHIS WS to continue feral swine removal across SRS via aerial shooting requires DOE/NNSA to prepare a new EA, revise the existing FONSI, or prepare an EIS. DOE/NNSA concludes that the environmental analysis that relates to the potential impacts to resource areas stemming from the proposed action in the Final FSDM EA, properly takes the environmental impacts resulting from USFS-SR continued removal of feral swine across SRS via aerial shooting by the APHIS WS given the *de minimis* nature of the impacts as delineated in this SA. DOE/NNSA concludes that the changes to the Project described in this SA do not require a new EA or preparation of an EIS. DOE/NNSA will issue a revised FONSI to document its decision for the USFS-SR to enter into an agreement with the WS to continue feral swine removal via aerial shooting as evaluated in this SA.

For questions on this SA or the Final FSDM EA and FONSI, please contact:

Tracy Williams
 NEPA Document Manager/NEPA Compliance Officer
 U.S. Department of Energy/National Nuclear Security Administration
 Savannah River Field Office
 ATTN: Tracy Williams (Bldg. 730-B)
 P.O. Box A
 Aiken, SC 29802
 NEPA-SRS-NNSAA@srs.gov

Issued in Aiken, South Carolina, this 3rd day of December 2024.

**MICHAEL
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Digitally signed by MICHAEL
 MIKOLANIS
 Date: 2024.12.03 16:33:30 -05'00'

Michael A. Mikolanis, Manager
 National Nuclear Security Administration
 Savannah River Field Office