



FINDING OF NO SIGNIFICANT IMPACT AND DECISION TO IMPLEMENT THE SPATIAL HABITAT AND SPECIES MANAGEMENT PLAN AT SANTEE NATIONAL WILDLIFE REFUGE, LOCATED IN CLARENDON COUNTY, SOUTH CAROLINA

FINDING OF NO SIGNIFICANT IMPACT

The U.S. Department of the Interior (DOI), Fish and Wildlife Service (Service) proposes to implement the Spatial Habitat and Species Management Plan (SHSP) at Santee National Wildlife Refuge (NWR), located in Summerton, Clarendon County, South Carolina, to update and refine habitat and species management of the refuge's approximately 15,095 acres, including management of forest, grassland and upland cropland, and managed wetland habitats, in order to protect and conserve the refuge's resources of concern, including the painted bunting, wood thrush, sandhill crane, wintering grassland birds (Henslow's sparrow, LeConte's sparrow), wintering dabbling ducks (green-winged teal, wood duck, and others), and wood stork, consistent with the refuge's purposes and the Santee NWR Comprehensive Conservation Plan (CCP).

The Service has prepared the Environmental Assessment: 2026 Spatial Habitat and Species Management Plan for Santee NWR (NEPA Unique Identifier: 2024-0039049-NEPA-001), incorporated herein by reference, pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.), the Department of the Interior NEPA Regulations (43 CFR 46), the DOI Handbook of National Environmental Policy Act Implementing Procedures (516 DM 1), U.S. Fish and Wildlife Service policy (550 FW 3), and other applicable Federal and State laws and regulations.

The South Carolina Department of Administration State Clearinghouse served as the State point of contact consulted in the preparation of the EA, with a letter requesting comment on the EA, Compatibility Determination, and SHSP sent on June 26, 2026. The following Tribes were invited to consult on the selected changes: Absentee Shawnee Tribe, Catawba Indian Nation, Shawnee Tribe, and Eastern Shawnee Tribe of Oklahoma.

Introduction

Santee NWR encompasses approximately 15,095 acres in Clarendon County, in the upper Atlantic Coastal Plain region of South Carolina, superimposed on the lands and waters of the 110,600-acre Lake Marion reservoir. The refuge contains a diversity of habitats, including mixed hardwoods, mixed pine hardwoods, pine plantations, marsh, croplands, old fields, ponds, impoundments, and open water, and benefits migratory waterfowl, neotropical songbirds and other birds, and terrestrial and aquatic wildlife. Refuge management was outlined and evaluated in the Santee NWR CCP/Environmental Assessment/Finding of No Significant Impact (USFWS 2008a, b). This EA evaluates a proposal to update and refine habitat and species management of the refuge through the SHSP, which steps down and provides specificity to certain goals and objectives of the CCP without changing the CCP's original intent.

Purpose and Need

The purpose of the selected action is to refine implementation of the CCP for Santee NWR to address changing landscape and natural resource conditions, enhance and adapt refuge habitat and species management, and better serve refuge purposes and management goals, consistent with CCP Goal 1 (Threatened and Endangered Species), Goal 2 (Migratory Birds), Goal 4 (Wildlife and Habitat Diversity), Goal 5 (Forests), and Goal 6 (Exotic, Invasive, and Nuisance Species) (USFWS 2008).

The need for the selected action is supported by multiple factors, including addressing management activities, recent updates to information for key resources of concern, changing conditions in the landscape, and limited refuge staff time. The refuge's CCP/EA/FONSI was finalized in 2008, more than 17 years ago; changes in conditions, species status, and other factors necessitate review and amendment of the CCP through preparation of the SHSP.

Agency, Public and Tribal Coordination and Consultation

Coordination and consultation input provided by Federal, State, and local agencies; Tribes; and the public was considered in the development of the EA.

This EA was made available for public review and comment concurrent with the publication of the SHSP and Compatibility Determination. Public notice, including a Public Information Bulletin and associated documents, was posted on the refuge's website beginning June 26, 2026, for a 30-day public review and comment period. Members of the public were notified of the

availability of these documents via the refuge website, and comments were accepted electronically or via U.S. mail. The Service received one email with public comments from a member of the public and were reviewed for any changes that need to be made. While all comments were pertinent to the refuge, none were substantive for the scope of the EA, SHSP, or CD therefore no changes were made as a result of any comments. The Service's response to public comments is incorporated here in the Response to Comments.

The Service contacted the State with a letter requesting comments on the EA, Compatibility Determination, and SHSP on June 26, 2026.

The Service began coordination with potentially interested Native American Tribes on refuge management activities with the 2008 CCP. Specific to the SHSP, the Service initially requested consultation and input from the Absentee Shawnee Tribe, Catawba Indian Nation, Shawnee Tribe, and Eastern Shawnee Tribe of Oklahoma on June 26, 2026. Tribes and tribal members were welcome to provide comment during the public comment period.

The Service coordinated with Santee Cooper, USGS, SCDNR, and other partners and non-governmental organizations during the design of the Selected Action to address watershed protection and water quality and quantity considerations within the drainage system.

A preliminary intra-Service consultation pursuant to Section 7 of the Endangered Species Act was completed as part of this EA and the SHSP (USFWS 2026), resulting in a determination of "may affect, but not likely to adversely affect" for the red-cockaded woodpecker, and "not likely to jeopardize" determinations for the tricolored bat and monarch butterfly, and "no effect" determinations for the West Indian manatee, Canby's dropwort, and American chaffseed, none of which have ever been documented on the refuge. A Section 7 consultation has been prepared and was submitted on August 8, 2026, after public review and comment. A prior Section 7 consultation, with findings of no effect and not likely to adversely affect, was also completed for the 2008 CCP and is incorporated by reference. The recent Programmatic Biological Opinion: Implementation of Forest Habitat Management Practices on National Wildlife Refuges in the Southeast Region for Tree Roosting Bats (PBO) (USFWS 2024) also applies to this action; prescribed fire and forestry practices recommended to minimize impacts to tree-roosting bats, including reducing fire intensity within forest units, avoiding known bat roosts, and retaining or creating snags during mulching/thinning operations, will be utilized to address conflicting management actions.

Selected Action and Reasonable Range of Alternatives

The Service considered a reasonable range of alternatives to the selected agency action that are technically and economically feasible and that meet the purpose and need of the proposal, including an analysis of the reasonably foreseeable effects of not implementing the selected agency action. Alternatives considered in the NEPA analysis are summarized below.

Alternative A (No Action Alternative) – Continue Current Management

Under the No Action alternative (Alternative A), the Selected Action (Alternative B) would not be implemented, and refuge management would continue as outlined in the 2008 CCP (USFWS 2008a, b). Active habitat and wildlife management would remain limited to protection of refuge infrastructure, such as fire breaks, roads, ditches and canals, and pumps and water control structures, along with limited habitat maintenance, such as reduced water manipulation, reduced planting, or reduced mechanical manipulation. Passive management of the existing 1,200 acres of forest would continue, with the potential for occasional active management. Management would continue on 50 acres of cropland and 1,135 acres to provide supplemental wildlife food, and active management of the existing 1,200 acres of grassland management units would continue for the long term. The refuge's hunting program would continue to be evaluated annually, with results dictating whether the program should expand, contract, or be modified. Environmental education and wildlife interpretation would continue and potentially decrease over time, though visitation would be expected to continue to experience small increases over time. This alternative was not selected because it does not meet the stated purpose and need.

Alternative B (Selected Action/Selected Alternative) – Implement the Spatial Habitat and Species Management Plan

The selected action is the selected alternative for implementation and will implement the SHSP as detailed in Section A of the SHSP and its associated MapSheets (MapSheet i: Landscape Level Overview; MapSheet 1.1: Santee NWR Overview; MapSheet 1.2: Santee NWR Forest Habitat; MapSheet 1.3: Santee NWR Grassland and Upland Cropland Habitat; MapSheet 1.4: Santee NWR Managed Wetlands Habitat). Refuge management will focus on achievement of refuge migratory bird purposes, including protecting and conserving the refuge's resources of concern, and furthering the mission of the National Wildlife Refuge System, including ensuring the biological diversity and integrity of the refuge and its federally listed threatened and

endangered species. Alternative B will refine, update, and replace certain objectives, or portions of objectives, from the CCP (USFWS 2008a, b); existing CCP goals will remain unchanged.

On a rotational basis (every 2 to 4 years), the Service will maintain and manage up to 1,200 acres of longleaf, mixed hardwood/pine, and pine stands across the Bluff, Cuddo, Pine Island, and Dingle Pond Units, using fire, mechanical, chemical, and biological strategies, to support desired stand structure as part of a larger upland landscape mosaic of open forest, scrub-shrub, and grassy patches for the painted bunting; conversion of loblolly to longleaf pine may occur over time. The Service will also manage, as appropriate and possible, bottomland hardwood, green tree reservoirs, and cypress/tupelo stands in the same units to support desired forest conditions.

On an annual basis, the Service will maintain and manage up to 1,200 acres of grassland-dominated, early successional habitat across the Bluff, Cuddo, and Pine Island Units for breeding and migrant painted buntings and wintering grassland birds, maintaining grassland units at 30 percent or less encroachment by woody species. Up to 50 acres of cropland among Fields A, B, and C in the Bluff Unit will be annually managed for grain crops such as milo, corn, or millet to create a minimum of 237,500 Waterfowl Energy Days benefiting sandhill cranes and other native wildlife.

The Service will maintain, improve, and/or restore up to 1,135 acres of managed wetlands (moist-soil, permanent, green-tree, and agricultural impoundments) to contribute toward foraging habitat needs (4,385,097 Waterfowl Energy Days) for approximately 60,895 migrating and wintering dabbling ducks and to provide high-quality habitat for wading birds such as the wood stork. This includes managing up to 770 wetland acres for desired emergent vegetative cover and water depths of 6 to 24 inches from November to March; up to 80 acres (15 acres in the Bluff/Millet Field Unit and 65 acres in the Cuddo Unit) for Japanese millet flooded to 18 inches or less to provide 380,000 Waterfowl Energy Days; up to 85 acres (60 acres in the Cuddo Unit and 25 acres in the Pine Island Unit) for grain crops such as rice, flooded to 18 inches or less, to provide up to 387,600 Waterfowl Energy Days; and up to 120 acres of green-tree reservoirs in the Cuddo and Pine Island Units maintained at water depths of 6 to 24 inches from November to March for wintering wood ducks and other dabbling ducks.

Opportunities for wildlife-dependent recreational activities, hunting, wildlife observation and photography, and environmental education and interpretation, will continue to be provided under Alternative B. Fishing was identified as a current use in the CCP baseline and will also continue as applicable.

Implementation of selected habitat and species objectives will be contingent upon the availability of resources and Full-Time Equivalents, and the scope and timeline of these activities may be adjusted accordingly to ensure feasibility within existing constraints, including a reduction in resources prompting the Refuge Manager to re-evaluate any habitat or species objectives.

This alternative helps meet the purpose and need of the Service described above because it steps down and provides specificity to goals, objectives, and recommendations from the CCP (USFWS 2008), the PBO for the implementation of forest habitat management practices, State Forestry Best Management Practices (BMPs), and other guidance, in order to more effectively manage, maintain, restore, and protect the refuge's habitats and wildlife species.

This alternative was selected over Alternative A because it best meets the stated purpose and need and will best promote the national environmental policy expressed in section 101 of NEPA. No or negligible impacts are expected for land use, soundscape, special land status designations, historic and archeological properties, aesthetics, and public health and safety. Minor to negligible short-term adverse impacts, transitioning to minor long-term beneficial impacts, are expected for habitat and vegetation, fish and wildlife species, threatened and endangered and special status species, air quality and climate change, geology and soils, and water resources; these impacts are limited in spatial and temporal scope, and no significant short-term, long-term, cumulative, direct, or indirect adverse impacts are anticipated for these or any other resources.

Rationale for the Decision

The selected alternative, Alternative B, was selected because it best meets the purpose of and need for the action and is within the Service's statutory authority. Alternative B implements the SHSP, which steps down and provides specifics to several of the goals and objectives identified in the CCP without changing the CCP's original intent, focusing on management, maintenance, restoration, and protection of the refuge's habitats and wildlife species. While minor adverse

temporary impacts could be expected during habitat management and restoration activities, the EA's effects analysis demonstrates that Alternative B will result in overall minor beneficial impacts to wildlife and aquatic species, threatened and endangered species, and other special status species, as well as minor beneficial long-term impacts to habitat and vegetation, water resources, geology and soils, air quality, and climate change, compared to the No Action Alternative. Refuge management and operations and visitor use and experience are also expected to see modest, manageable increases under Alternative B, along with beneficial general and economic effects on the quality of life for the American people.

Summary of Reasonably Foreseeable Effects on the Quality of the Human Environment

Based on the effects analysis provided in the EA, implementation of the selected action are not anticipated to result in reasonably foreseeable significant effects on the quality of the human environment, as summarized below.

While refuges, by their nature, are unique areas protected for conservation of fish, wildlife, and habitat, the selected action will not have a significant impact on refuge resources and uses for several reasons:

- The action will result in beneficial impacts to the human environment, including the biodiversity and ecological integrity of the refuge, as well as the wildlife-dependent recreational opportunities and socioeconomics of the local economy, with only negligible to minor adverse impacts to the human environment as discussed above. Populations of priority resources of concern are expected to increase with additional actively managed acreages of grassland, upland, managed wetland, and forested habitats. According to the Southeast Conservation Blueprint (SECAS 2025), 100 percent of the current Santee NWR boundary is identified as a priority area for regional conservation efforts and lies within a designated connectivity corridor.
- The adverse direct and indirect effects of the selected action on habitat, vegetation, wildlife, soils, water resources, air quality, and climate are expected to be minor and short-term. Increased acreages of active management, such as prescribed fire, mechanical/chemical vegetation treatment, or timber harvest (using selective thinning rather than clearcutting as the primary harvest method), may contribute to temporary, discrete impacts; however, these will be conducted under site-specific prescriptions, in

accordance with State Forestry BMPs and the PBO, that incorporate mitigation measures including seasonal timing restrictions, maintenance of forested buffers near streams, and equipment restrictions during wet conditions, to ensure impacts to air, water, soil, and resources of concern are mitigated or avoided. Timber harvest activities that exceed the scope analyzed here, or that introduce new effects, will require additional site-specific NEPA review. The benefits to long-term ecosystem health, and to resilience against storm damage, drought, disease, and invasive species under changing climate conditions, outweigh any short-term adverse impacts discussed in the EA.

- The Service uses an adaptive management approach to all wildlife management on refuges, continuing existing monitoring efforts and expanding survey and inventory protocols to assess resource-of-concern population status, trends, and responses to habitat management, in coordination with Santee Cooper, SCDNR, and USGS. Habitat management strategies will be systematically evaluated, and adaptations to management strategies will be made if monitoring indicates undesirable trends for target or non-target species or communities.
- The action, along with proposed minimization and mitigation measures, will ensure there is low danger to the health and safety of refuge staff, visitors, and hunters/anglers themselves. Areas of the refuge where tree harvesting occurs may be temporarily closed to ensure visitor safety, and signage will inform visitors of land management activities as appropriate.
- The action is not expected to negatively impact any threatened or endangered species or any federally designated critical habitat; no critical habitat is designated within the refuge. Of the six federally listed or candidate species potentially occurring in the vicinity, only the tricolored bat and monarch butterfly are confirmed to occur on the refuge; the red-cockaded woodpecker has not been observed since 1994, and the West Indian manatee, American chaffseed, and Canby's dropwort have never been documented on the refuge. Prescribed fire and forestry practices will follow the recommendations of the PBO (USFWS 2024), including reducing fire intensity, avoiding known bat roosts, and retaining or creating snags during mulching/thinning operations, and forestry activities affecting potential bat roost habitat will be timed between November 15 and March 31 to reduce impacts during the active season. Habitat restoration and management activities involving seed mixes will follow Regional

Director's Order No. R4 M-25-05, including minimum standards for native flowering plant diversity and prohibitions on non-native or tropical milkweed, to protect monarch butterflies and other pollinators. Should management activities occur near known bald eagle nests (four of which have been documented on the refuge) or potential wood stork rookery locations, the Service will apply established seasonal and spatial protective buffers consistent with the Bald and Golden Eagle Protection Act and regional guidance.

- The action will not impact any cultural or historical resources. Management actions will avoid the Santee Indian Mound/Fort Watson site, and existing protections, including restrictions on ground-disturbing equipment, continued monitoring, and law enforcement oversight, will ensure the site remains undisturbed. Any potentially negative impacts from habitat management would require review by the Service's Regional Archaeologist and consultation with the State Historic Preservation Office, as mandated by Section 106 of the National Historic Preservation Act. Should previously unrecorded cultural resources or human remains be discovered, activities will be halted, and the Regional Archaeologist and Refuge Manager will be contacted at once.
- The action will not impact any wilderness areas because none exist within the refuge, and the refuge does not include any other special land status designations.
- There is no scientific controversy over the impacts of this action, and the impacts of the selected action are relatively certain, based on the best available science and monitoring data presented in the EA. The activities selected are standard refuge management practices supported by BMPs and the PBO for bats, and effects on listed species are expected to remain minimal and within previously evaluated thresholds.
- The selected action is not expected to have any significant adverse effects on floodplains, pursuant to Executive Order 11988, because the land management activities do not affect water flows or other factors relevant to flooding and floodplain landscapes, and no modifications are proposed that would increase floodplain elevation or negatively impact its function or value. While most of the refuge's wetland impoundments involve active water-level management for wildlife habitat purposes (consistent with the refuge's established water-control infrastructure and CCP objectives), this management does not involve draining, filling, or otherwise altering the fundamental hydrology of the surrounding landscape.

Mitigation Authorities and Commitments

Measures to minimize adverse effects have been incorporated into the selected action. Before conducting forest management projects such as thinning or applying prescribed fire, a site-specific prescription will be developed in accordance with the PBO for bats (USFWS 2024), identifying the refuge's resources of concern, management constraints (including cultural resources and ESA considerations), current conditions, desired future conditions, and required treatments; a Section 106 cultural resources review and Section 7 intra-Service consultation will be completed before the prescription is approved for implementation, and a Service Special Use Permit will outline stipulations for any contracted forest thinning activities. Timber harvesting will occur during dry periods or colder months (with forestry activities affecting bat roost habitat restricted to November 15 through March 31) to reduce soil erosion, compaction, and rutting, and will follow South Carolina Forestry Commission BMPs. Selective thinning, not clearcutting, will be the primary harvest method, with pre-harvest multi-resource surveys, strategic layout of skid trails, and clear designation of no-cut zones to protect wildlife and habitat. Forested buffers will be maintained near streams and other aquatic resources to minimize water quality impacts, and prescribed fire in riparian zones will be buffered to prevent sedimentation. Mowing and prescribed fire in grassland units will generally be minimized from April to August to allow the majority of bird species to nest and fledge, with unmanaged strips left within or around field edges to reduce mortality. The Service, Santee Cooper, USGS, SCDNR, and other partners will continue to coordinate to minimize impacts to the watershed, including restricting public access and timing management and monitoring activities to minimize impacts. All fertilizer, soil amendment, and pesticide applications under the cooperative farming program will follow approved Pesticide Use Permit conditions, Cooperative Agriculture Agreement and Special Use Permit conditions, label and application restrictions, and BMPs.

Finding of No Significant Impact Determination

Based on review and evaluation of the EA, including the mitigation commitments documented therein, the selected action is not a major Federal action that will significantly affect the quality of the human environment pursuant to section 102(2) of NEPA. Accordingly, preparation of an environmental impact statement on the selected action is not required.

Decision

The Service has decided to implement the Spatial Habitat and Species Management Plan (Alternative B) at Santee National Wildlife Refuge. The action will increase active management of forested, grassland, and wetland habitats across the refuge as detailed in the SHSP and its associated MapSheets, including up to 1,200 acres of forest management, up to 1,200 acres of grassland and early successional habitat management, up to 50 acres of upland cropland management, and up to 1,135 acres of managed wetland habitat, in order to protect and conserve the refuge's resources of concern. Opportunities for wildlife-dependent recreation, including hunting, wildlife observation and photography, and environmental education and interpretation, will continue to be provided. This action is compatible with the purposes of the refuge and the mission of the National Wildlife Refuge System. See attached Compatibility Determination.

The action is consistent with applicable laws and policies.

Date

[Regional Director, Southeast Region]