

## **SAM D. HAMILTON NOXUBEE NATIONAL WILDLIFE REFUGE COMPATIBILITY DETERMINATION**

### **Establishing Authorities and Purposes:**

Noxubee NWR was established on June 14, 1940, by Executive Order 8444 under the authority of 16 U.S.C. Sec. 715 (Migratory Bird Conservation Act). The refuge was renamed Sam D. Hamilton Noxubee NWR on June 22, 2012. The Refuges' stated purpose was **"...for use as a Refuge and breeding ground for migratory birds and other wildlife..."** 16 U.S.C. Sec. 715 (Migratory Bird Conservation Act).

In conjunction with the primary establishing purposes, the Refuge will provide an area for the **"... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans"** 16 U.S.C., 668(a)(2) (National Wildlife Refuge System Administration Act) as well as **"...for the development, advancement, management, conservation, and protection of fish and wildlife resources..."** 16 U.S.C., 742(b)(1) (Fish and Wildlife Act of 1956). The passage of the Endangered Species Act (ESA) in 1973 (as amended) required the Refuge to support recovery actions for federally listed endangered and threatened species.

### **National Wildlife Refuge System Mission:**

"The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (National Wildlife Refuge System Improvement Act of 1997). The United States Fish and Wildlife Service (USFWS) is the agency that administers the National Wildlife Refuge System.

**Description of Use:** *Forest Management Activities as part of Timber-for-land Exchange agreement with Prisock Brothers Logging, Inc.*

As part of the Travis Prisock 102.39-acre land exchange in Section 1, T16N, R15E valued at \$233,111.14, timber of equal value will be provided and harvested by Prisock Brothers Logging Incorporated from existing refuge lands. The timber-for-land agreement was finalized February 7, 2012. Any additional forest management will be addressed within a revised Comprehensive Conservation Plan and its updated documents. The acquisition of the new land benefited the refuge by providing additional protection to bottomland hardwood habitats, offering additional small ponds used by migratory waterfowl and resident reptiles and amphibians, providing several large cypress trees of possible benefit to several species of wildlife including bats, offering habitat for Swainson's Warbler within scattered native cane patches, increasing possibility for public recreational opportunities, increasing the protection to both banks of the Noxubee River, and simplifying the administrative process of posting the refuges boundary saving both employee time and funding through lower supply and maintenance costs.

Forest management is a tool for maintaining, enhancing, or restoring the mesic shortleaf/loblolly pine forest and associated species, with special emphasis on the endangered red-cockaded woodpecker. The authorities to manage refuge lands comes from the Migratory Bird Conservation Act of 1929, the Fish and Wildlife Act of 1956, the Wilderness Act of 1964, the National Wildlife Refuge System Administration Act of 1966, and the Endangered Species Act of 1973. Economic use may be authorized when it contributes to the achievement of the Refuge purpose(s) (50 CFR 29.1). The value is to be commensurate with fees for similar products paid to private land owners in the vicinity and can be a monetary exchange or a share in kind of the resources (50 CFR 29.5).

Sam D. Hamilton Noxubee NWR has primarily forested habitat, being approximately 45,000 acres of forest on about 48,000 acres of land owned by the Fish and Wildlife Service. Among habitat management plans, the approved Comprehensive Conservation Plan of 2004 and the 1995 Forest Management Plan details the concepts and specifics of the target forest conditions to provide enhanced habitat for resources of concern. The basic tenets of the plans are as follows:

- Increase the proportion of pine forest in an open canopy with grassland understory condition to provide quality endangered red-cockaded woodpecker habitat.
- Increase the proportion of both pine and hardwood forests that is species diverse.

Mesic shortleaf/loblolly pine forest management is centered on the endangered red-cockaded woodpecker (RCW) and Bachman's Sparrow desired habitat conditions. The Red-Cockaded Woodpecker Recovery Plan (2003) estimates minimum foraging habitat, referred to as the Managed Stability Standard, for each group at 75 acres of open pine over 30 years of age, with a total of at least 3,000 ft<sup>2</sup>/acre of pine basal area from pine greater or equal to 10 inches in diameter-at-breast height (dbh), in stands with the following attributes:

- an average basal area of 40 – 70 ft<sup>2</sup>/acre for pine ≥ 10” dbh
- an average basal area < 20 ft<sup>2</sup>/acre for pine < 10” dbh
- no hardwood midstory or, if present, sparse and less than 7’ in height
- total stand basal area, including overstory hardwoods, < 80 ft<sup>2</sup>/acre,
- a recommendation that all stands counted as foraging habitat be within 0.25 miles of the cluster or within 200’ of any other foraging stand

The desired future condition is to provide each RCW group 120 acres of good quality foraging habitat, as defined in the RCW Recovery Plan. This provides a greater quality and quantity of habitat than the minimum previously described.

The Bachman's sparrow has similar habitat needs including:

- less than 60 % pine canopy cover
- greater than 65 % grass/forbs understory
- at least 10 % exposed soil
- less than 20 % woody midstory.

Overall, frequently burned stands (2-5 year interval) maintain habitat conditions favored by both species. When prescribed fire has been marginal or not an option, mechanical or chemical applications may be used to reduce hardwood rootstocks which hinder foraging by resources of concern.

Since the development of these plans and the silvicultural prescriptions based on these plans, the number of active Red-cockaded Woodpecker clusters on the refuge has appeared to decline, key refuge personnel related to the planning and management of these stands (the wildlife biologist and the refuge manager) have changed, and new biological information has been obtained through monitoring the Red-cockaded Woodpecker clusters and Forage Habitat Analyses. All information suggests a need for increased good quality foraging habitat, which is produced through the silvicultural procedure of thinning, to reduce midstory and overstory hardwoods that limit RCW habitat quality and use.

To maintain required habitat condition goals over the next 15 years for Red-cockaded Woodpeckers, manipulation of the forest is essential. Crowded trees can be thinned to encourage development of habitat characteristics such as an open canopy with grassland understory condition. Thinnings and canopy gaps are made by removing selected trees that are surplus to the needs of the habitat. Regeneration of desired tree species can be accomplished through a variation of the seedtree and/or shelterwood methods. Trees to be removed may be girdled, wounded, or cut so that their shade is eliminated. There are commercial buyers (mills) and operators (loggers) that will pay market value for portions of the trees removed. The objective of obtaining sunshine for growth of grassland plants can be accomplished without negative consequences to priority forest dependent wildlife.

Long-term and short-term planning is conducted prior to any manipulation of the forest. The current CCP was completed and approved in 2004 after solicitations for public comments. A 1 to 2 percent wildlife habitat assessment is conducted on a 7-year cycle to determine forest health and structure. At a minimum, the following data will be collected during habitat assessments: species composition, species size, species height, species condition, regeneration, cavities, overstory cover, midstory cover, understory cover, presence or absence of switch cane, vines, and coarse woody debris. Data collected will be analyzed and incorporated into the GIS database for the purpose of making management decisions to benefit wildlife resources of concern and resident wildlife. An analysis of the data is made and used in the preparation of management decisions detailed in the annual Forested Habitat Analysis and Management (Silvicultural) Prescription. The prescription is prepared at the Refuge before undergoing a review and approval process through the Regional Office. Normally the prescription is then implemented by Refuge staff through a public bid process and special use permits. Because of the timber-for-land exchange Priscock Brothers Logging Incorporated will be conducting all logging associated with this compatibility determination. A Section 7 Endangered Species Consultation and a Section 106 Request for Cultural Resource Compliance are sent to their respective offices for review and concurrence. A foraging habitat analysis is completed and included in the Section 7 Intra-Service Section 7. Under the Endangered Species Act, there are legislative requirements to actively manage endangered species on Federal lands.

Best Management Practices (BMPs) of Mississippi ([http://www.mfc.ms.gov/pdf/Mgt/WQ/Entire\\_bmp\\_2008-7-24.pdf](http://www.mfc.ms.gov/pdf/Mgt/WQ/Entire_bmp_2008-7-24.pdf)) are followed on Sam D. Hamilton Noxubee NWR. Timber harvest by heavy equipment is limited to dry periods to minimize risk of rutting or other adverse effects on the site. Trees to be removed are most

often individually selected and marked by refuge staff. Some trees or plants may be removed by Refuge staff to accomplish the same objective or to remove non-native or invasive species.

Commercial activities are permitted via Special Use Permits issued individually by the Refuge office.

The timber values being used as part of the timber-for-land exchange are linked to two silvicultural prescriptions originally written as step-down prescriptions to the 1995 Forest Management Plan, one written in 2007 and the other in 2010. Both prescriptions are being revised. Within the described activity section of refuge Special Use Permit 43620-11-014, Compartment 27 – Stands 7 and 11 (74 acres) would have accounted for all the timber value committed. The volume of timber estimated for removal was 7,429 tons of wood products and the silvicultural procedure was seedtree. However to better address the needs of wildlife, Compartment 27 – Stands 7 and 11 and Compartment 10 – Stands 8, 10, 15 and 21 (199 acres) will account for all the timber value needed. The volume of timber estimated for removal is 7,973 tons of wood products and the silvicultural procedure is to be thinning.

**Availability of Resources:** The Travis Prisock 102.39-acre land exchange in Section 1, T16N, R15E and valued at \$233,111.14 was finalized February 7, 2012. Some elements of needed resources are already in place, such as specialized staff at the Refuge, including the Forester and Forestry Technicians. Other Refuge staff assists in the administration and/or field work, such as an Office Assistant, Project Leader, Wildlife Biologist, etc. Some amount of time needed by other positions in maintenance, law enforcement, management, and administration.

**Anticipated Impacts of the Use:** Forest management activities will result in short-term disturbances and long-term benefits to forest habitats. Operation of heavy equipment and removal of some vegetation will result in minimal short-term soil disturbance, but with no soil displacement distances. Mississippi's BMPs will be utilized to limit non-point source pollution in streams and river. Refuge personnel will continuously monitor the conditions of haul trails and suspend logging if necessary. Additionally, wildlife species utilizing undisturbed forest habitat will be temporarily displaced. As vegetation is disturbed, other wildlife species may also be temporarily displaced. Only the existing network of roads and trails should be utilized, maintained, and optimized to minimize adverse effects to wildlife and the ecology of the area, yet remain efficient for accommodating refuge management and public use. Over time, these short-term impacts will dissipate as the effects of increased sunshine quickly results in enhanced productivity of the habitat. As most wildlife species are dependent upon habitat found in disturbed forests, the overall effect of these disturbances is positive. These positive effects include developing a diverse floristic ground layer by enhancing conditions for grasses, forbs, vines and other ground vegetation; provide beneficial habitat for ground nesting birds and many species of insects; and perpetuating pine habitat for future endangered red-cockaded woodpeckers.

Forest product harvesting should not result in short or long-term impacts that adversely affect the purpose of the Refuge or the mission of the National Wildlife Refuge System. A RCW foraging habitat analysis has been completed during intraService section 7 consultation under

the Endangered Species Act. The conclusion is the proposed thinning is not likely to adversely affect this species. The net effect will restore and improve foraging habitat in RCW partitions for active and inactive clusters. The number of pine and hardwood trees, their diameter, and basal area remaining in these stands after thinning will meet the respective criteria for good quality foraging habitat as defined in the RCW Recovery Plan.

**Determination (check one below):**

- Use is Not Compatible  
X Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:** Operations may be conducted throughout the year as ground conditions allow, but only according to the guidelines detailed in the Special Use Permit and Bid Packages. In order to confirm harvest procedures and address any questions, a pre-entry conference will be held between the Refuge Forester, permittee, and the logger, if different than the permittee. The permittee is to notify the Refuge when harvesting operations begin and are completed.

Close inspection and supervision of all timber sales is necessary to ensure that harvesting operations meet the conditions of the permit and refuge objectives. Frequent and variably timed inspections of harvesting operations will ensure that only designated trees are cut, and that problems are rectified before becoming major issues. Timber harvesting operations may be suspended or restricted any time that continued operation might cause excessive damage to the forest stands, soil, or wildlife habitat. Reasons for suspension or restriction may include, but are not limited to: periods of high wildfire danger, insect or disease hazard, times when harvesting activities may interfere with essential refuge operations, during periods of heavy rains or wet conditions which may cause soil rutting, erosion or flooding, or when harvesting operations present a safety hazard. Furthermore, operations may be suspended or terminated if the Special Use Permit conditions are violated.

When harvesting is complete, the Refuge Forester will inspect the site for compliance with all requirements of the permit. If any deficiencies are found, the permittee will be notified and given reasonable time to achieve compliance. If full compliance is achieved, the permittee's performance deposit will be returned in full. If not, an amount to mitigate damages will be deducted from the performance deposit and the remaining amount returned.

Special conditions are included in the bid invitation and permit to further protect the resources of the refuge, such as:

1. The permittee will maintain any Refuge road or easement used. In addition, permittee will repair any damages to the primary gravel or paved roads resulting from logging operations to standards specified by the Refuge Manager. This may include, but is not limited to, grading, graveling, or rocking. Reasonable actual costs for work on Refuge gravel roads will be refunded from performance deposits. The expense of work on dirt

roads within the sale area is the sole responsibility of the permittee. No new roads will be created and all access will be limited to existing roads and infrastructure.

2. The location of loading decks and existing logging roads will be mutually agreed to by permittee (or his representative) and Refuge Forester prior to their placement. All primary haul roads used by permittee will be left in good condition or blocked after operations are completed by placing logging slash and/or dirt mounds across all entrance points as directed by Refuge Forester. Those roads to be left open will be built up enough so that the road will not hold standing water any more than the adjacent area. This will require the use of equipment such as a bulldozer and/or road grader. If required as determined by the Refuge Forester, blocked roads will be reseeded with refuge approved grasses to prevent erosion.
3. In thinning operations, no unmarked trees will be cut or damaged. As determined by the Refuge Manager, penalties may be assessed for cutting unmarked trees at a rate of three (3) times the stumpage paid for the harvested merchantable timber.
4. Trees shall be cut so as to leave a stump not more than 12 inches high for sawtimber and 6 inches high for pulpwood, on the side adjacent to the highest ground. Ground level paint spot must be visible after the tree has been cut.
5. All logging operations shall be conducted during daylight hours.
6. Tree and tops cut shall not be left hanging or supported by any other living or dead tree or brush and shall be pulled down immediately after falling.
7. Tops and logging debris shall be kept pulled back 50 feet from highways, county roads, refuge roads and trees with basal cavities. All openings and fields must be kept clear of tops and debris. The permittee and his employees will do all in their power to prevent and suppress fires; shall pay the United State for any unnecessary damage to roads, fields, openings, and ditches resulting from operations.
8. Logging operations will be allowed only when site conditions allow. Logging will not be allowed when ground is wet and subject to rutting or severe soil compaction. At no time will rutting greater than 6" in depth be allowed.
9. The Refuge Manager shall have the authority to temporarily close down all or any part of the operation during a period of high fire danger, inclement weather, refuge hunts, safety reasons or any other reason deemed necessary. Extensions to the Special Use Permit time period equal to the closed period will be granted to the permittee. Extensions will not be granted due to inactivity during favorable harvesting conditions.
10. Logging operations will not be allowed in red-cockaded woodpecker clusters during the breeding season, usually April 1 to June 30. Timber harvest and mechanical operations would be allowed elsewhere within the stand.

11. The permittee (or his representative) will not litter. Disposal of petroleum products is prohibited. Equipment must be maintained and not leak more than a few drops of petroleum product per day. Performance bond monies may be used to pay for litter clean-up.

12. Tree-length logging and skidders will be allowed. Unnecessary damage to the residual stand will not be tolerated. As determined by the Refuge Manager, penalties may be assessed for damage to unmarked trees at a rate of three (3) times the stumpage paid for the harvested merchantable timber.

13. Each portion of the sale area must be completed before moving to other portions of the area unless authorized by the Refuge Manager.

14. The permittee will be responsible for job safety while operating on the Refuge.

15. A pre-entry conference with permittee and his logger will be held prior to any work being done on the sale area. The Refuge Manager or their representative retains authority to stop logging operations at any time if road, weather, water, or other unsatisfactory conditions exist.

16. The possession and/or use of firearms and alcohol on the refuge are prohibited.

17. All of the Best Management Practices for forestry in Mississippi will be followed as mandatory practices. Failure to follow BMPs is grounds for termination of the Special Use Permit.

**Justification:** This use has been determined compatible provided the above stipulations are implemented. This use will facilitate the primary purpose of the refuge, which is to provide a refuge and breeding grounds for endangered and threatened species, migratory birds and other wildlife. This use will meet the mission of the National Wildlife Refuge System and enhances fish, wildlife, and plant resources on these lands by providing renewable resources for the benefit of the American public. This use will be administered in compliance with 50 CFR 29.1.

Wildlife habitat improvements through forest management activities, such as commercial tree harvesting, are used to restore and manage loblolly pine. Additionally, commercial tree harvesting is necessary to maintain forest health and improve wildlife habitat on the Refuge. Commercial tree harvesting for wildlife management has been utilized on the Refuge for over 60 years. One of the management objectives for the Refuge is to create, maintain, and enhance habitat for wildlife, with special emphasis on the endangered red-cockaded woodpecker and Bachman's Sparrow. The forest management operations conducted are beneficial to wildlife by providing a more open canopy, which will encourage growth on native ground cover, which improves red-cockaded woodpecker fitness and provides enhanced foraging opportunities for Bachman's Sparrow, deer, turkey, quail, squirrel, and numerous other species. Converting small areas of older pines into regeneration areas is necessary to provide long-term foraging and nesting habitat for the red-cockaded woodpecker. Harvest activities

are also beneficial to forest health, increases diversity, and lessen the chance of epidemics of damaging insects.

**NEPA Compliance for Refuge Use Decision:** Place an X in appropriate space.

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

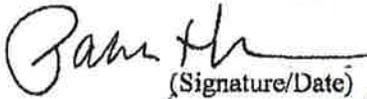
**Mandatory 10 or 15-year Re-evaluation Date:** August, 2022

**Approval of Compatibility Determination:**

Refuge Manager:

 8/6/2012  
(Signature/Date)

Regional Compatibility  
Coordinator:

 - 8/6/12  
(Signature/Date)

Area Supervisor:



 8/7/12  
(Signature/Date)

Regional Chief, National  
Wildlife Refuge System,  
Southeast Region:

 8/8/12  
(Signature/Date)