



## ***Compatibility Determination - Pond Creek National Wildlife Refuge – Commercial Forest Management***

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**USE:** Commercial Forest Management Activities

**REFUGE NAME:** Pond Creek National Wildlife Refuge

**DATE ESTABLISHED:** August 12, 1994

**ESTABLISHING AND ACQUISITION AUTHORITY(IES):**

- 16 U.S.C. 3901(b) Stat.3582-91(Emergency Wetlands Resources Act of 1986)
- Sec. 305, P.L.104-33 (Omnibus Parks and Public Lands Act of 1996)

**REFUGE PURPOSE(S):**

- " ...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international treaty obligations contained in various migratory bird treaties and conventions"
- "...recognize the important public purposes served by non-consumptive activities, other recreational activities, and wildlife-related public use, including hunting, fishing and trapping." Furthermore, this plan " ...shall permit, to the maximum extent practicable, compatible uses to the extent that they are consistent with sound wildlife management, and in accordance with the National Wildlife Refuge System, Administration Act of 1996 (16 USC668dd-668ee) and other applicable laws."

**NATIONAL WILDLIFE REFUGE SYSTEM MISSION:**

The mission of the Refuge System, as defined by the National Wildlife Refuge System Improvement Act of 1997, 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."

## **DESCRIPTION OF USE:**

### **(a) What is the use? Is the use a public use priority?**

The use is commercial forest management, to include such actions as commercial thinning, salvage, and other silvicultural practices used to improve forest habitat conditions. The use of commercial operators would constitute an economic use. It is not a priority public use of the National Wildlife Refuge System, under the National Refuge System Administration Act of 1966 {16 U.S.C. 668dd-668ee}, as amended by the National Wildlife Refuge System Improvement Act of 1997.

Forest management allows the refuge to maintain and enhance necessary habitat for priority species by promoting plant communities beneficial to these species, manage forest stands by manipulating stand composition in order to produce high quality habitats for trust resources, and manipulate forest stands to provide diverse plant successional stages ranging from regeneration to mature timber, which will support a variety of wildlife species. This will include promoting hard mast species and by assuring that adequate den and snag trees remain in the stands. These techniques may include harvesting under proper climatic conditions and placing buffer strips where necessary to protect water quality or other natural resources. Various silvicultural treatments will be used to accomplish these forest management objectives. These treatments are discussed in more detail in the 2003 forest management plan and 2014 habitat management plan (HMP). Silvicultural decisions will be based upon the resources of concern and their habitat requirements as it relates to forest management objectives. Silvicultural decisions should consider the age and vigor of the existing stands and the availability of desirable reproduction. When harvesting timber, the promotion of diverse, vigorous stands of timber will benefit trust species. An important factor to consider when making silvicultural decisions is the ability to promote and advance the desired species necessary to maintain a healthy forest structure, which includes multiple forest age and size classes across the landscape.

The use of commercial loggers in an active forest habitat management program can assist land managers in maintaining appropriate forest structure, age, and/or size class distribution on the landscape. These actions will ensure that adequate habitat is always available for endangered species, forest interior breeding birds and other forest-dependent species.

### **(b) Where would the use be conducted?**

This use could be conducted on approximately 25,000 forested acres of Pond Creek National Wildlife Refuge. Areas that are not currently forested but have the potential to be afforested would also fall under this use at some point in time. Future ownership of forested areas and potentially forested areas will also be included in this use.

**(c) When would this use be conducted?**

Different aspects of forest management will take place at various times throughout the year. Many tasks take place during the management process including but not limited to inventory, planning, timber marking, harvesting, harvest monitoring and various other tasks involved with timber sale administration. The harvesting portion of this process would be conducted during dry periods of the year. This period is normally between July 15 and November 15, but could occur during other times of the year during acceptable conditions.

**(d) How would this use be conducted?**

The 2003 Forest Habitat Management Plan (FHMP) and the 2014 Habitat Management Plan (HMP) detail the specifics of Desired Future Conditions (DFC's) of the forests, to provide enhanced habitat for wildlife by increasing the availability of cover and food. The basic goals of these management plans are to:

- Increase the proportion of forest in a multi-canopied condition.
- Increase the proportion of forest that is species diverse.
- Increase the proportion of forest containing larger diameter class trees.

The 2014 HMP adopts the “desired forest conditions” of the publication from the Forest Resource Conservation Working Group (FRCWG) of the Lower Mississippi Valley Joint Venture (LMVJV). These later DFCs are fully described in “Restoration, Management and Monitoring of Forest Resources in the Mississippi Alluvial Valley: Recommendations for Enhancing Wildlife Habitat,” edited by R. Wilson, K. Ribbeck, S. King and D. Twedt. The FRCWG table of DFCs has been collaboratively developed to clearly explain favorable habitat conditions for the priority birds and other forest-dependent wildlife. The goal is to achieve desired conditions on 35 -50 percent of the landscape at any point in time on appropriate sites:

- Overstory canopy cover of 60-70 percent
- Mid-story canopy cover of 25 – 40 percent
- Understory canopy cover of 25 – 40 percent
- Dominant trees >2/ac
- Coarse Woody Debris (CWD) of  $\geq 200$  ft<sup>3</sup>/ac
- Cavity trees (holes <10”) of >4 snag stems/ac  $\geq 4$ ” dbh or  $\geq 2$  stems/ac  $\geq 20$ ”
- Den trees (holes > 10”) of  $\geq 2$  trees/ac  $\geq 26$ ” dbh or  $\geq 8$  ft<sup>2</sup> BA  $\geq 26$ ” dbh
- Standing dead and/or stressed trees of >6 stems/ac  $\geq 10$ ” or  $\geq 2$  stems/ac  $\geq 20$ ”
- Shade intolerant regeneration with sufficient numbers on 30 – 40 percent of area

Each of these efforts complements the other, as the overall goal is to increase structural and species diversity to provide beneficial wildlife habitat. The definition of multi-canopy forest includes a significant presence of a midstory and/ or understory along with overstory. Larger trees would have more cavities, dens and contribute to large size CWD.

**(e) Why is this being proposed?**

To achieve DFCs, manipulation of the forest is essential. Creating gaps in the overstory and midstory canopies provide sunlight penetration to the forest floor to stimulate the growth of vegetation vital as food and cover for wildlife to meet refuge objectives. Also, crowded trees can be thinned to encourage development of habitat characteristics such as large full crowns for perching, nesting and mast production as well as cavities for den sites. Thinnings and canopy gaps are made by removing selected trees that are surplus to the needs of the habitat. Trees to be removed may be girdled (killed), or cut so that their shade is eliminated. Girdling of trees has relatively high costs, while selling the trunks of the trees has a lower cost. Commercial harvests can also be used to remove significant amounts of offsite species such as the loblolly pine plantations located on Pond Creek NWR. In this instance, portions or all of the trees located on a site could be removed in an attempt to restore the site to species that would naturally occur there. There are commercial buyers (mills) and operators (loggers) that would pay market value for portions of the trees removed. The objective of obtaining sunshine via canopy gaps and thinning are accomplished with limited negative consequences.

Long-term and short term planning is conducted prior to any manipulation of the forest. The current HMP was completed in 2014 and approved in 2014. The 2014 HMP includes a great deal of information that is not mentioned in this compatibility determination and should be considered an integral part of this compatibility determination. Possible forest management actions to be conducted on the refuge are mentioned in the 2014 HMP. Forest management prescriptions will be prepared at the refuge and undergo a review and approval process through the Regional Office.

The HMP is a 15 year plan during which all areas of the refuge are examined. Inventories of forest management compartments will be conducted throughout these 15 years by sampling portions of compartments. The removal of trees from these compartments could occur as often as every 15 years but will more likely occur on a 20-40 year cycle. Removal of wood products by heavy equipment will be 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. Occasionally trees to be removed are designated by guidelines such as remove all of a certain species (nonnative) or removal of smaller trees that are considered less important or overabundant on that particular site.

Commercial activities are permitted activities and are directed under the guidance of a Special Use Permit, which is issued by the Refuge .

**AVAILABILITY OF RESOURCES:**

Currently refuge staff plan and implement all forest management activities. The refuge has sufficient staff to accomplish these activities with the use of commercial loggers. Additional expenses for equipment maintenance, operating expenses and habitat restoration are funded out of the refuge's budget which includes expense for sale money received by the refuge. Refuge forest management will be carried out to the extent of available resources.

**ANTICIPATED IMPACTS OF THE USE:**

Commercial harvesting operations would result in short-term disturbances and long-term benefits for forest habitats. Short-term impacts would include disturbance and displacement typical of any noisy heavy equipment operation. Operation of heavy equipment and removal of some vegetation could also result in a short-term increase in soil erosion. This will be minimized by adhering to the Arkansas Forestry Commissions Best Management Practices (BMPs) guidelines. Additionally, wildlife species utilizing undisturbed forest habitat would be temporarily displaced. As vegetation is disturbed, other wildlife species may also be temporarily displaced. Efforts should be made to use the existing network of roads and trails as much as possible in the harvesting process. These roads and trails should be used and maintained in a way that minimizes adverse effects to wildlife and the ecology of the area, yet remain efficient for accommodating refuge management and public use. Over time any short term impacts would diminish as the effects of increased sunshine quickly results in enhanced diversity and productivity of the habitat. Since so many wildlife species are dependent upon habitat found in disturbed forests, the overall effect of these disturbances is positive. No more than 10% of the refuge should be treated by mechanical timber harvest in any single year. Forest product harvesting could negatively impact some species of wildlife at given points in time; however, these impacts are considered minor and short-term on a landscape level and would not result in impacts that adversely affect the purpose of the refuge or the mission of the Refuge System.

**PUBLIC REVIEW AND COMMENT:**

This compatibility determination has been made available for public review and comment for a 14 day period by 1) posting at the Refuge Office, 2) posting on the refuge website and social media networks, 3) public media press release.

**DETERMINATION (CHECK ONE BELOW):**

**USE IS NOT COMPATIBLE**

**USE IS COMPATIBLE WITH FOLLOWING STIPULATIONS**

**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

## **STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

All management actions will be in accordance with Service and regional policies and guidelines and with approved forest management prescriptions. Refuge staff will monitor all permitted forest management operations to ensure they are in compliance with Special Use Permit conditions. Any special use activity not in compliance will be immediately stopped. Arkansas's Best Management Practices for Forestry will be used as a guide to protect refuge resources.

1. Except where specifically authorized by a Special Use Permit, all regulations governing activities on national wildlife refuges in general and specific public use regulations for Pond Creek NWR (including littering, possession and use of firearms, and protection of wildlife) apply.
2. A pre-entry conference between the Refuge Forester (or designee) and the successful bidder representative will be required before beginning logging operations to insure understanding of the permit conditions and thus avoid serious conflicts.
3. All logging will be within the boundaries specified (see attached map) and coordinated with the Refuge Forester or his designee.
4. Trees larger than or equal to 16 inches in diameter (dbh) shall be cut so as to leave a stump not more than 6 inches above the root collar. Trees less than 16 inches in diameter (dbh) shall be cut so as to leave a stump not more than 6 inches in height on the side adjacent to the highest ground. Stump heights will be measured on the side adjacent to the highest ground. Trees are painted at eye level and at stump; ground level paint spot must be visible after tree has been cut. All marked trees must be cut. In the event any marked trees are not cut by permittee, refuge personnel will have the trees cut and will withhold from the permittee's performance guarantee a sufficient amount to cover the cost incurred.
5. Logging will not be permitted when the ground is wet and subject to rutting or severe soil compaction. The permittee and his employees will do all in their power to prevent rutting and erosion. Permittee will be required to fill any ruts made as a result of his operation.
6. Only marked or designated trees shall be cut, unless otherwise agreed on by both parties. Utmost care shall be exercised to protect all other trees and vegetation from damage. Additional trees marked by refuge personnel for roads or loading sites will be paid for at bid price. The penalty for excessive skinning or other damage to residual trees will be assessed at \$5 per inch DBH. Additional damages may be assessed and merchandising methods adjusted (i.e. skidding lengths) based on the severity of the damage.
7. No unmarked trees will be cut. Penalties will be assessed for cutting unmarked trees at \$5.00 per inch of stump diameter up to 22 inches and \$10.00 per inch of stump diameter for 22 inch and larger stumps.

8. Trees will be delimited and topped at the point of felling, unless special conditions are permitted.
9. No loading sites will be permitted within 300 feet of public roads or near ATV trails open to the public. A refuge forester must approve the location of all loading sites and temporary roads.
10. Trees and tops cut shall not be left hanging or supported by any other living or dead tree or brush. Any tree that becomes lodged when cut shall be immediately rendered unlodged and felled flush to the ground. All tree tops and other logging debris will be removed from roads, roadside ditches, trails, firebreaks, fields, streams, and drainages immediately after felling.
11. When timber sale is adjacent to private land, all logging debris will be pulled back onto the refuge to avoid damage to private property.
12. Vehicles and other equipment will be operated in a safe manner at all times. Both refuge personnel and the visiting public use the refuge roads. The speed limit on refuge roads is 25 miles per hour unless posted otherwise.
13. Each bidder will submit with his bid, or have on file in the refuge office, a current statement demonstrating his financial ability and the ownership or control of necessary equipment to carry out the operation on the basis herein specified. To properly construct and/or maintain roads will require the use of a crawler tractor and road grader.
14. The permittee and his/her employees will be reasonably prudent in preventing and suppressing forest fires. Permittee shall be liable for all fire suppression cost resulting from his operations.
15. Should previously unrecorded historic resources, cultural resources or human remains be discovered on Service land all activities will be halted immediately and the Refuge Manager contacted at once.
16. If, during the course of the harvest activity, the permittee deliberately damages a recorded site, the permittee will be responsible for the resultant site damage assessment and mitigation.
17. The normal operating season on this sale will be June 15 through November 15. Any operations outside the normal season must be approved in advance by the Refuge Forester. For safety reasons and to minimize conflict, the permittee will cease logging operations during refuge deer gun quota hunts.
18. The refuge manager or his/her designee, i.e. Administrative Forester shall have the authority to stop timber harvesting operations anytime justifiable reasons develop.

19. Loggers are required to implement Arkansas Best Management Practices (BMPs) guidelines.
20. Clean up of oil, hydraulic fluid and other contaminants as a result of the logging operation is the responsibility of the permittee.
21. The permittee will remove plugs, dams and bridges constructed by the permittee, upon completion of the contract.
22. Ownership of all products remaining on a sale area will revert to the Government upon termination of the permit.
23. The U.S. Government accepts no responsibility to provide right-of-way over private lands for materials sold under this contract.
24. Maintenance of all roads on Pond Creek used in the logging operation will be the responsibility of the permittee. These roads must be maintained to pre-harvest condition or to the standards described under these permit conditions. This may include, but is not limited to grading, graveling or rocking.

#### **JUSTIFICATION:**

The use of commercial forest contractors and appropriate silvicultural techniques of forest management, will contribute to the purposes, for which the refuge was established, the mission of the Refuge System, the enhancement of biological integrity, diversity and environmental health and to facilitate the ability of the refuge to meet its habitat and wildlife management objectives.

The use will not pose any significant adverse effects on the refuge natural resources, interfere with the public use of the refuge, or cause an undue administrative burden. Commercial forest management on the refuge will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established as evidenced by the environmental assessment that shows this use will improve and advance our ability to achieve the goals and objectives set forth under the CCP. This use would be administered in compliance with 50 CFR 29.1.

#### **REFERENCES CITED:**

LMVJV Forest Resource Conservation Working Group. 2007. Restoration, Management, and Monitoring of Forest Resources in the Mississippi Alluvial Valley: Recommendations for Enhancing Wildlife Habitat. Edited by R. Wilson, K. Ribbeck, S. King, and D. Twedt.

USFWS. 2003. Forest Management Plan and Environmental Assessment. Pond Creek NWR, Lockesburg, AR.

USFWS. 2014 Habitat Management Plan, Pond Creek, Lockesburg, AR.

**SIGNATURE: REFUGE  
MANAGER:**\_\_\_\_\_

**(Signature and date)**

**REVIEW: REGIONAL COMPATIBILITY  
COORDINATOR:**\_\_\_\_\_

**(Signature and date)**

**REVIEW: REFUGE  
SUPERVISOR:**\_\_\_\_\_

**(Signature and date)**

**CONCURRENCE: REGIONAL  
CHIEF:**\_\_\_\_\_

**(Signature and date)**

**MANDATORY 10- OR 15-YEAR REEVALUATION DATE:**

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