

UNITED STATES FISH AND WILDLIFE SERVICE

ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA), and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and determined that the proposed Hunting Plan for Upper Ouachita National Wildlife Refuge in Morehouse and Union Parishes, Louisiana:

Check One:

- is a categorical exclusion as provided by 516 DM 2, Appendix 1 and 516 DM 6, Appendix 1, Section 1.4 A (4). No further NEPA documentation will therefore be made.
- is found not to have significant environmental effects as determined by the attached Environmental Assessment and Finding of No Significant Impact.
- is found to have significant effects and, therefore, further consideration of this action will require a notice of intent to be published in the Federal Register announcing the decision to prepare an EIS.
- is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.
- is an emergency action within the context of 40 CFR 1 506.1 1. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.

Other Supporting Documents:

Endangered Species Act, Section 7 Consultation, 2007  
Compatibility Determination, 2007

Signature Approval:

 (1) Originator	<u>3-16-07</u> Date	 (2) Regional Environmental Coordinator	<u>03/26/07</u> Date
 (3) Regional Chief, NWRS, Southeast Region	<u>3-26-07</u> Date	 (4) Regional Director, Southeast Region	<u>4/6/07</u> Date

Sport Hunting

Decision Document Package

for

**UPPER OUACHITA NWR**

**Contents**

2. EA

Environmental Assessment

**2007 Sport Hunt Plan**

on

UPPER OUACHITA NATIONAL WILDLIFE REFUGE  
Ouachita and Morehouse Parishes, Louisiana

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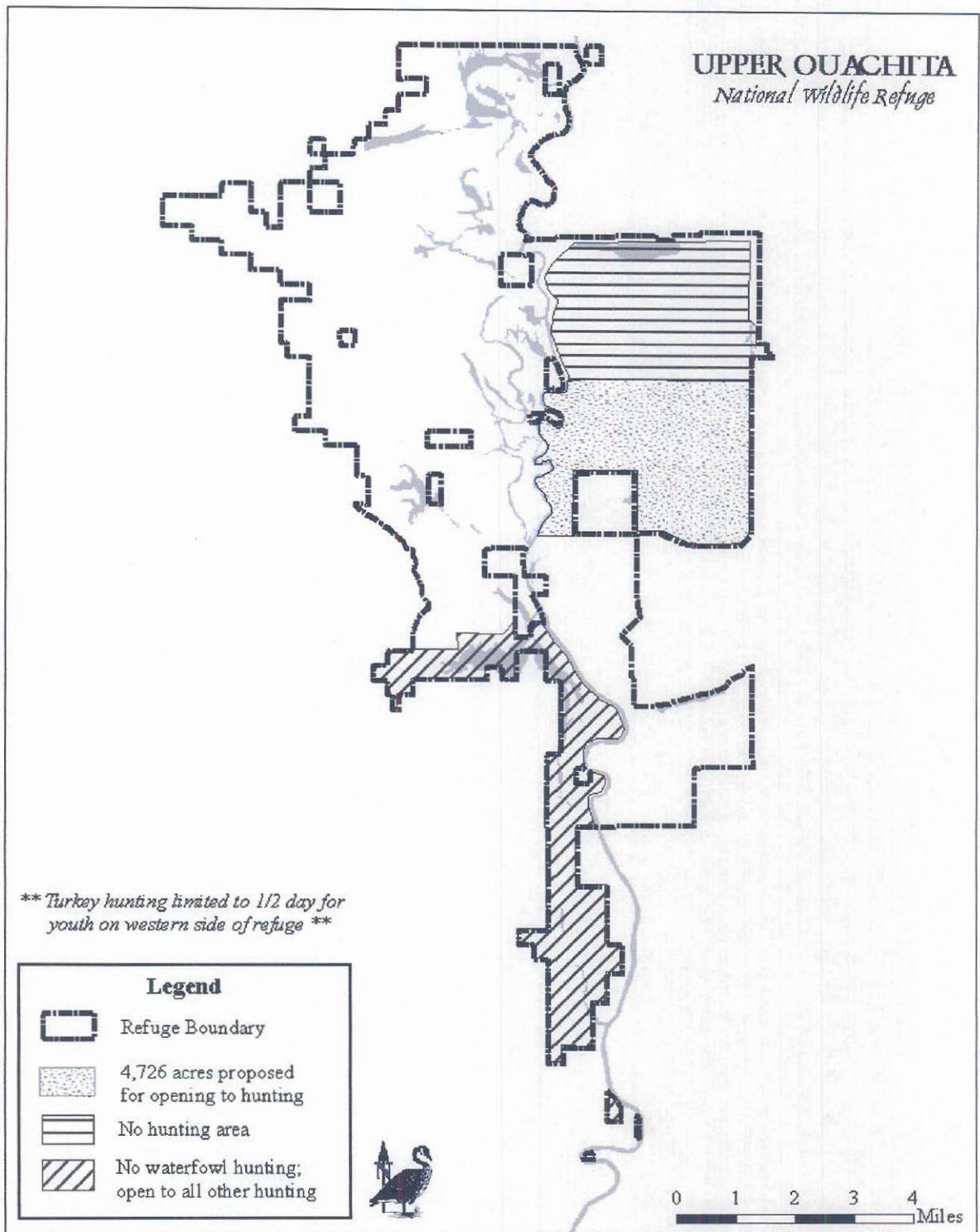


Figure 1. Areas open and closed to hunting on Upper Ouachita NWR.

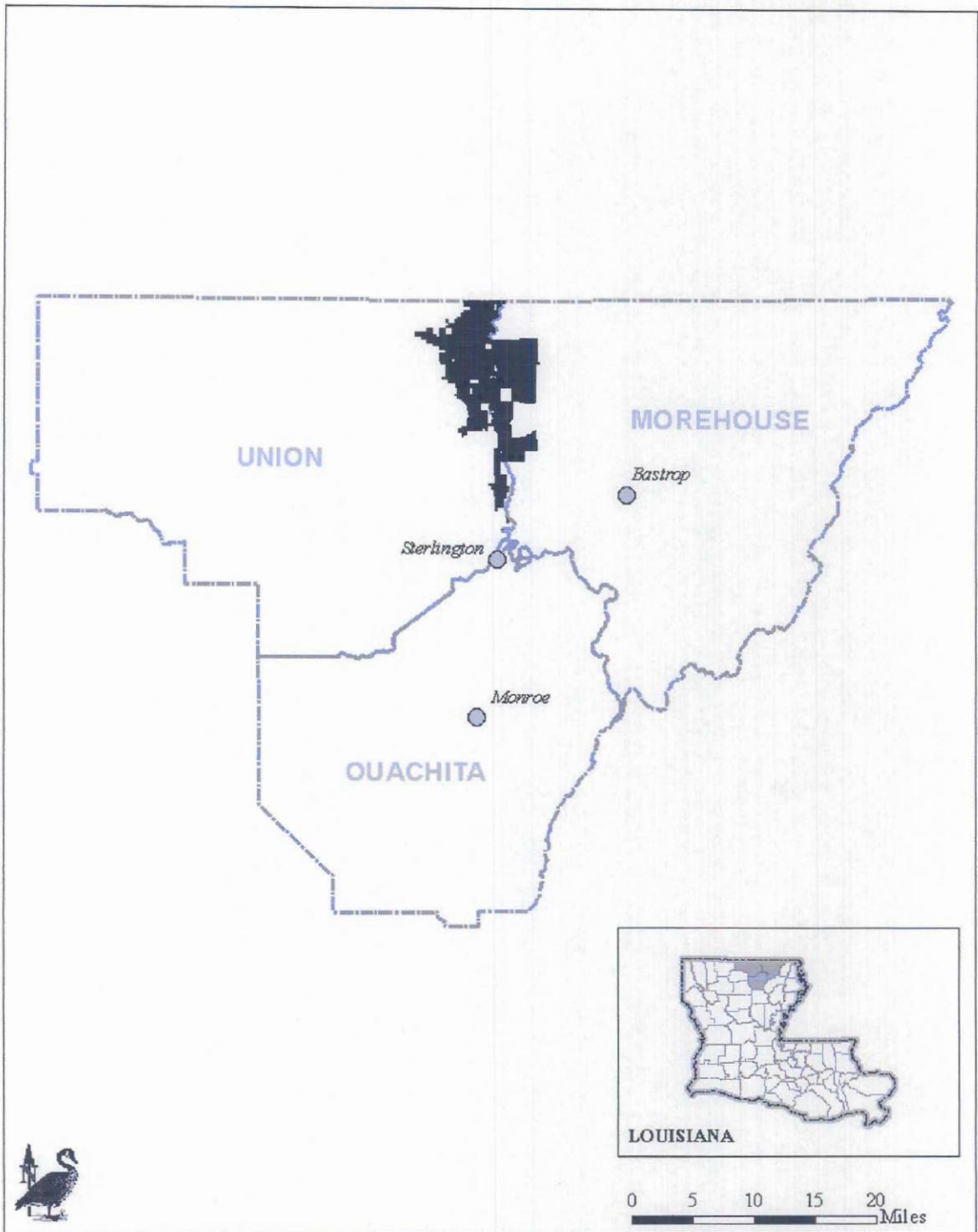


Figure 2. Location of Upper Ouachita National Wildlife Refuge

## Chapter 1 Purpose and Need for Action

The federally legislated purposes for which Upper Ouachita National Wildlife Refuge (NWR) was established are “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” (Migratory Bird Conservation Act, 16 U.S.C. 7153); and for “...the conservation of the wetlands of the nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions...” (16 U.S.C. 3901 (b)).

The National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd et seq.) provides authority for the Service to manage the Refuge and its wildlife populations. In addition it declares that compatible wildlife-dependent public uses are legitimate and appropriate uses of the Refuge System that are to receive priority consideration in planning and management. There are six wildlife-dependent public uses: hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation. It directs managers to increase recreational opportunities including hunting on National Wildlife Refuges when compatible with the purposes for which the Refuge was established and the mission of the National Wildlife Refuge System.

The purpose of this Environmental Assessment is to evaluate the feasibility of opening Upper Ouachita National Wildlife Refuge to hunting on previously closed land and to open a limited youth turkey hunt. A youth turkey hunt would be held for ½ day for 10 youth drawn by lottery. Guides and funding would be provided by the National Wild Turkey Federation. An additional 4,762 acres of land on the Mollicy Unit of the refuge would be opened to regular hunting according to Refuge-specific regulations. These hunting regulations would be the same as those on currently open to hunting lands within the refuge (see 2007 Sport Hunting Plan Upper Ouachita NWR).

The proposed action is needed to implement the 2007 Sport Hunting Plan for Upper Ouachita NWR which would provide the public with a high quality recreational experience and provide the refuge with a wildlife management tool to promote the biological integrity of the refuge.

## Chapter 2 Alternatives Including the Proposed Action

This chapter discusses the alternatives considered for hunting on Upper Ouachita National Wildlife Refuge. These alternatives are the 1) no action which continues with current management of the hunt program and 2) proposed action which implements the Refuge's 2007 Sport Hunting Management Plan

### **2.1 No Action Alternative: Current Management**

Under this alternative, hunting would be limited to the 37,522 acres currently open to hunting and to species currently allowed to be hunted, including deer, feral hogs, ducks, geese, gallinules, coots, rails, snipe, woodcock, dove, squirrel, rabbit, raccoon, opossum, coyote, and beaver. Turkey hunting would not be permitted, and the 4,762 acres on the Mollicy Unit would remain closed to hunting. There would be no change to current public use and wildlife management programs.

### **2.2 Proposed Action: 2007 Sport Hunting Plan for Upper Ouachita NWR**

The proposed action would increase land open to hunting by 4,762 acres on Upper Ouachita NWR (Figure 1) and allow for a ½ day youth turkey hunt, but would administratively limit it to those areas specified in the refuge-specific regulations. All or parts of the refuge may be closed to hunting at any time if necessary for public safety, to provide wildlife sanctuary, or for administrative reasons.

Refer to 2007 Sport Hunting Plan for Upper Ouachita NWR for specific regulations.

## Chapter 3 Affected Environment

The Upper Ouachita National Wildlife Refuge (NWR) was established on November 20, 1978. It is located in Union and Morehouse Parishes in north central Louisiana (Figure 2). The refuge contains 42,594 acres that is bound on the north by the Arkansas state line and on the west, east and south by privately owned land. From north to south, the refuge measures approximately 20 miles, but it varies in width from one to six miles.

The acquisition area for Upper Ouachita NWR was established early in 1978 when the Service learned that Pennzoil was willing to sell most of their 26,130 acres in the refuge area. Acquisition efforts in 1978 culminated in the sale of 20,834 acres by the Pennzoil Producing Co., the major landowner in the acquisition area, to the Service on November 9, 1978. Total amount paid to Pennzoil for the refuge was \$6,254,790. Only the surface rights to the land were acquired. Pennzoil reserved for itself in perpetuity all oil and gas deposits found under the land and all future rights to whatever uses of the surface may be necessary to explore for and/or extract these minerals.

The Mollicy Unit, which totals 16,191 acres, was purchased from Elton Kennedy in parcels from 1997-1999 for \$6,527,921. Plum Creek Timber Company offered to sell 4,939 acres to the Service on the western edge of the refuge in 1999. The Nature Conservancy of Louisiana stepped in and purchased the property with the purpose of holding the land and selling it in pieces to the Service as funding became available. The Service purchased the land over the next four years for \$7,474,195. There are approximately 1,000 acres of private inholdings within the current refuge boundary.

Funding and authorization for the refuge acquisition was provided through the Migratory Bird Conservation Act of February 18, 1929 (45 Stat. 1222), as amended, and the Wetlands Loan Extension Act of 1976 (Public Law 94-215).

### 3.1 Physical Environment

A central feature of the refuge and critical to the ecosystem's function is the Ouachita River, which bisects the refuge in half between east and west. When water levels are high in the Ouachita River, its tributaries back up and eventually the river itself floods the refuge, which can occur on approximately 75% of refuge lands. The topography in the Ouachita River flood plain is flat with rolling hills present along most of the western boundary. Elevations range from 52 feet MSL at river's edge to almost 90 feet MSL in the western portion of the refuge. The refuge mostly consists of bottomland hardwood forest, both mature and reforested, with some upland pine habitat on the western side.

The Ouachita River originates in the Ouachita Mountains of west-central Arkansas near the Oklahoma border. It flows south through northeastern Louisiana, drains into the Little River at Jonesville, Louisiana, joins the Tensas River to form the Black River, which empties into the Red River. The river has a drainage basin of 10,825 square miles at the refuge. The drainage basin in Arkansas is mostly forested resulting in extremely

high water quality when it flows through the refuge, even during flood periods. A series of three major reservoirs are located on the Ouachita River in Arkansas. The Corps has a lock and dam at Felsenthal, AR approximately two river miles north of the northern refuge boundary. The combined effects of the dams on the river exert considerable influence on river stages at the refuge. In northern Louisiana, the Ouachita River is a slow moving, often turbid river that averages 300 feet wide when at pool stage.

The normal low-water elevation of the Ouachita River during the dry summer months is 52.4 feet above MSL, a level maintained by another navigational lock and dam at the town of Columbia, approximately 98 river miles downstream from the refuge. Rainfall in the Ouachita Basin upstream from the refuge may produce river stage differences as great as 30 feet causing various portions of the refuge to be flooded, depending upon river stage. When the river is at 70 feet MSL, approximately 80 percent of the refuge's western side is inundated. Permanent water areas on the refuge include the Ouachita River, Fish Lake, Moss Lake, Pierre Creek, Cecil Creek, Bayou DeButte, Big Lake, Finch Lake, Harrel Lake and Boggy Bayou.

Refuge land is all composed of Recent and Pleistocene-age alluvial soils in the floodplain of the Ouachita River. These lands are subject to annual flooding by stream overflow or backwater. The Recent alluvium exists in a band generally within one to one and a half miles of the present river channel. The Recent alluvium is mostly point bar deposits consisting of "tan to gray clays, clayey silts, and fine sands in the ridges, and soft, gray clays and silty clays in the swales (USFWS 1988)." Water and organic contents are high in the swales but usually lower in the ridges. The top strata of the Recent deposits are mostly between 50 and 70 feet above mean sea level (MSL). The bulk of the refuge land consists of point bar and abandoned channel Pleistocene-age deposits known as the Deweyville Terrace formation. The somewhat older alluvial soils of the Deweyville Terrace are mostly "gray to light-brown silty to sandy clay." Elevation of the Deweyville Terrace formation is between 60 and 80 feet MSL. On the western edge of the refuge is another Pleistocene-age formation known as the Prairie Terrace. Prairie terrace soils are similar to those of the Deweyville Terrace, but higher in elevation, generally between 80 and 150 feet MSL. Whereas the Recent alluvial land and Deweyville Terrace are relatively flat, the Prairie Terrace is gently rolling, due to differential erosion. The Pleistocene and Recent deposits are underlain by much older Tertiary-age formations. The tertiary deposits outcrop beyond the Prairie Terrace several miles west of the refuge boundary, generally above 150 feet MSL. Soils of the Tertiary Uplands generally contain more sands and gravels than do the Recent and Pleistocene soils. These soils are also more acidic than the Pleistocene and Recent alluvial soils.

Upper Ouachita NWR is within the West Gulf Coastal Plain and is a part of the Lower Mississippi River Ecosystem.

### **3.2 Vegetation**

Specific acreage by habitat is as follows: 19,767 acres of bottomland hardwood forest, 9,236 acres of reforested bottomland hardwoods, 4,540 acres of upland pine/hardwoods, 2,000 acres of shrub scrub wetlands, 1,182 acres of moist soils, 2,540 acres of agricultural fields, 474 acres of fallow agricultural fields, and 2,907 acres of open water.

The three major vegetation types within the bottomland hardwood forest and reforested bottomlands found on the refuge are: Baldcypress-Water Tupelo, Overcup Oak-Water Hickory, and Sweetgum-Willow Oak. The upland pine forest is comprised of two major vegetation types, Loblolly Pine-Hardwood and Loblolly-Shortleaf Pine. Shrub scrub on the refuge mostly consists of planer tree, swamp privet and button bush located on the outskirts of baldcypress brakes and sloughs. Moist soils areas usually provide a mix of sedges, panicums, sprangletop, smartweed, millet, and toothcup. Undesirable species such as coffeeweed and cocklebur are also present. Rice is the primary agricultural crop on the refuge. A detailed description of the major vegetation types are listed below.

#### *Baldcypress-Water Tupelo Forest Type*

Baldcypress and water tupelo together make up the majority of stocking in this forest type, which occurs in swamps, deep sloughs, and very low, poorly drained flats. The sites are always very wet, and surface water stands well into or throughout the growing season. Soils are generally mucks, clays, or fine sand. Common trees associated with this type are black willow, water locust, overcup oak, green ash, and persimmon. Among the shrub species are swamp privet, buttonbush, and planer tree. Woody vines include red vine. A variety of herbaceous plants will be commonly seen and take the form of flotants, emergents, and submergents. Frequently, a variety of mosses and lichens adorn the exposed tree trunks, and the crowns may be draped with Spanish moss.

#### *Overcup Oak-Water Hickory Forest Type*

This type usually occurs in low, poorly drained flats and sloughs with tight clay or silty clay soils. These sites are the lowest within the first bottoms and are subject to late spring inundations. Overcup oak and water hickory together constitute the majority. Associates include willow oak, Nuttall oak, cedar elm, green ash, and water locust. Minor associates include black willow, persimmon, and sweetgum. Common shrub species include swamp privet, hawthorn, buttonbush, planer tree, and possumhaw. Woody vine species often associated include redvine, peppervine, trumpet-creeper, dewberry, and possibly greenbrier. Panicums, asters, annual grasses, and cocklebur may occur in openings within the stand.

#### *Sweetgum-Willow Oak Forest Type*

The low ridges in the broad slackwater areas of the first bottom are typically occupied by this forest type. Willow oak and sweetgum comprise the largest proportion of the stocking in stands of this type. There are extensive areas of this type on the poorly drained willow oak flats on the refuge. These stands are strongly dominated by willow oak because of the heavy clay soils. Sweetgum often forms only a minor proportion of the stocking. A major associate on higher clay ridges and flats is Nuttall oak, which may represent 30 - 50 percent of the composition. Other trees associated with this forest type are sugarberry, green ash, overcup oak, water oak, water hickory, cedar elm, persimmon, and sometimes baldcypress. Common shrubs include swamp privet, American snowbell, possumhaw, hawthorn, and dull-leaf indigo. Woody vines occasionally present are greenbrier, peppervine, and redvine.

### *Loblolly Pine-Hardwood Forest Type*

Hardwoods are predominant in this type with loblolly pine making up at least 20 percent of the stocking. On wet sites, loblolly pine is associated with sweetbay, blackgum, sweetgum, water oak, willow oak, red maple, and American elm. Species associated on drier sites are southern red oak, white oak, post oak, hickory, shortleaf pine, and persimmon. Midstory trees include flowering dogwood, American holly, black cherry, hawthorn, eastern hophornbeam, sassafras, and red mulberry. Common woody vines include Carolina jessamine, Alabama supplejack, greenbrier, grape, Japanese honeysuckle, and blackberry. Among the shrubs associated with this type are American beautyberry and *Viburnum spp.*

### *Loblolly-Shortleaf Pine*

Loblolly pine and shortleaf pine together comprise a majority of the stocking. This type is usually found on sites higher and drier than those where loblolly pine alone prevails, because shortleaf pine does not tolerate very wet soils and loblolly pine is less thrifty on dry, thin soil. Common overstory associates are sweetgum, blackgum, southern red oak, post oak, white oak, and mockernut hickory. Tree species in the midstory include flowering dogwood, persimmon, eastern redcedar, and hawthorn. Shrub species commonly associated with this type are American beautyberry, red buckeye, rusty blackhaw, and sumac. Among the common species of woody vines are greenbrier, Carolina jessamine, blackberry, Japanese honeysuckle, and poison ivy.

## **3.3 Wildlife Resources**

Wildlife species found on the refuge are typical of bottomland hardwood forests, moist soils, early successional forest and upland hardwood/pine habitat. The refuge provides habitat for thousands of wintering ducks and geese and year-round habitat for nesting wood ducks. Although no large rookeries are located on the refuge, thousands of wading and water birds, such as white ibis, herons, egrets, wood storks, cormorants, and anhingas, forage in the sloughs, bayous, and in the agricultural field at the Mollicy Unit. Many Neotropical migrants breed on the refuge while other species use the refuge during migration, especially along the Ouachita River. Resident game species include fox and gray squirrels, swamp and eastern cottontail rabbits, and white-tailed deer. Louisiana black bears are uncommon, passing through the refuge most often during spring. Furbearers present include opossum, muskrat, nutria, mink, river otter, beaver, red and gray foxes, and raccoon. Although the refuge is within the range of the American alligator, few are seen, probably due to fluctuating water levels, which is not preferred alligator habitat.

## **3.4 Threatened and Endangered Species**

### **3.4.1 Red-cockaded Woodpecker**

The red-cockaded woodpecker (*Picoides borealis*) is confined to old pine stands in the southeastern United States. Because this species evolved in a fire-maintained ecosystem, these woodpeckers prefer open, park-like pine stands with no midstory and herbaceous

groundcover. Red-cockaded woodpeckers (RCW) excavate only live pine trees that are usually 75 years old or greater. Habitat loss and then demographic isolation are the primary cause of their endangerment. Pine stands are on shorter rotations and fire has been excluded from most of the landscape causing RCW habitat to be scarce.

The RCW Recovery Plan calls for growing season burns, pine basal areas of 40-70 sq. ft, the installation of artificial cavities, population monitoring, and the translocation of individuals to help increase genetic diversity and overcome demographic isolation (USFWS 2003).

Currently, there is one active group of RCWs on Upper Ouachita NWR. When populations are this small and this isolated, any mortality of adults affects the population greatly. Any population under 10 groups is not considered viable, and preferably, populations should consist of 30 groups or more to be relatively safe from extirpation (USFWS 2003).

The refuge plans to increase the RCW population on pine lands that have been acquired in the past five years on the western portion of the refuge. These lands along with former refuge land comprise 3,800 acres of upland loblolly pine/hardwood. Preliminary efforts aimed at increasing the woodpecker population have been slow. Burn units have been established and prescribed burning is accomplished when a Fire Management Officer can be detailed to the Refuge during the spring. Mechanical work has been conducted to remove dense understory vegetation in some areas. Four recruitment clusters have been established by installing artificial cavities. Adult birds have been translocated into the population as part of mitigation for Plum Creek Timber Co; however, all four adults did not stay in the area. One juvenile female was translocated into the population in 2004 and attempted breeding the following spring.

### **3.4.2 Bald Eagle**

Many bald eagles are seen during the year, most of them during winter at the Mollicy Unit and at Fish and Moss Lakes. For several decades, bald eagles did not nest in northeast Louisiana; however, during the summer of 2000, a pair nested successfully on Shiloh Bayou at the Mollicy Unit. In 2003, 2004, and 2005, eagles nested successfully. Nests have since been found in other areas of Union, Ouachita and Morehouse Parishes. Eagle surveys are flown annually in conjunction with the mid-winter waterfowl counts.

### **3.4.3 Louisiana Black Bear**

Louisiana black bears (*Ursus americanus luteolus*) occasionally utilize the refuge throughout the year. Several sightings are reported each year by the public; however, there is not a breeding population of black bear on the refuge. Most bears are likely passing through the area or may den for the winter.

## **3.5 Fishery Resources**

The Ouachita River and its tributaries provide habitat for many species of freshwater fish and when the river floods into forested wetlands, good spawning habitat becomes

available. The important game species present in refuge waters are: bluegill, redear sunfish, longear sunfish, white and black crappie, largemouth, yellow and white bass. Other species include blue, flathead, and channel catfish, smallmouth, bigmouth, and black buffalo, freshwater drum, longnose, shortnose, alligator, and spotted gar, bowfin, and carp. Paddlefish are common in the river and utilize shallow areas on the refuge for spawning. In Louisiana, 112 fish species have been documented within the Ouachita River. The greatest diversity of those documented was collected from Alabama Landing on the west side of the refuge.

### **3.6 Cultural Resources**

The body of federal historic preservation laws has grown dramatically since the enactment of the Antiquities Act of 1906. Several themes recur in these laws, their promulgating regulations, and more recent Executive Orders. They include: 1) each agency is to systematically inventory the historic properties on their holdings and to scientifically assess each property's eligibility for the National Register of Historic Places; 2) federal agencies are to consider the impacts to cultural resources during the agencies' management activities and seek to avoid or mitigate adverse impacts; 3) the protection of cultural resources from looting and vandalism are to be accomplished through a mix of informed management, law enforcement efforts, and public education; and 4) the increasing role of consultation with groups, such as Native American tribes, in addressing how a project or management activity may impact specific archaeological sites and landscapes deemed important to those groups. The U.S. Fish and Wildlife Service, like other federal agencies, are legally mandated to inventory, assess, and protect cultural resources located on those lands that the agency owns, manages, or controls. The Service's cultural resource policy is delineated in 614 FW 1-5 and 126 FW 1-3. In the FWS's Southeast Region, the cultural resource review and compliance process is initiated by contacting the Regional Historic Preservation Officer/Regional Archaeologist (RHPO/RA). The RHPO/RA will determine whether the proposed undertaking has the potential to impact cultural resources, identify the "area of potential effect," determine the appropriate level of scientific investigation necessary to ensure legal compliance, and initiates consultation with the pertinent State Historic Preservation Office (SHPO) and federally recognized Tribes.

There are currently 7 recorded historic properties located on Upper Ouachita National Wildlife Refuge. Campbell (1981), who identified three of the sites during a Phase I archaeological survey on the Refuge, indicated that past construction and geomorphic actions have disturbed these archaeological sites to varying degrees. In addition, she felt that the potential for deeply buried sites in this portion of the Ouachita River Valley was high.

### **3.7 Socio Economic**

Union and Morehouse Parishes are rural in character with an economy based on forest products, natural gas production, agriculture, and light industry. Agriculture is dominated by cotton, rice, soybeans, cattle and chicken production. Population estimates, total households, families, housing units, and median annual household incomes are listed in Table 1 for Morehouse and Union Parishes (U.S. Census Bureau 2000).

**Table 1. Demographics of Morehouse and Union Parishes, Louisiana, based on U.S. Census 2000 data.**

<i>Parish</i>	<i>Population</i>	<i>Households</i>	<i>Families</i>	<i>Housing Units</i>	<i>Median Annual Household Income (\$)</i>
Morehouse	31,021	11,382	8,319	12,711	25,124
Union	22,803	8,857	6,412	10,873	29,061

Hunting is a traditional form of outdoor recreation for many people in Morehouse and Union Parishes and for some households, hunting participation provides food at a much cheaper cost. The number of licenses sold to hunters in Union and Morehouse Parishes during the 2004/05 hunting season were 2,826 and 3,321 respectively (*LDWF, personal comm.*). After adjusting for the 15% of Louisiana hunters that are seniors over age 65 and youth under age 16 that are not required to buy licenses, the number of hunters by parish increases to 3,238 for Union Parish and 3,820 for Morehouse Parish (*LDWF, personal comm.*).

## **Chapter 4 Environmental Consequences**

This chapter describes the foreseeable environmental consequences of implementing the two management alternatives in Chapter 2. When detailed information is available, a scientific and analytic comparison between alternatives and their anticipated consequences is presented, which is described as “impacts” or “effects.” When detailed information is not available, those comparisons are based on the professional judgment and experience of refuge staff and Service and State biologists

### **4.1 Effects Common to all Alternatives**

#### **4.1.1 Environmental Justice**

Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was signed by President Bill Clinton on February 11, 1994, to focus federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order directed federal agencies to develop environmental justice strategies to aid in identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The Order is also intended to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information and participation in matters relating to human health or the environment. This assessment has not identified any adverse or beneficial effects for either alternative unique to minority or low-income populations in the affected area. Neither alternative will disproportionately place any adverse environmental, economic, social, nor health impacts on minority or low-income populations.

#### **4.1.2 Public Health and Safety**

Each alternative would have similar effects or minimal to negligible effects on human health and safety.

#### **4.1.3 Refuge Physical Environment**

Impacts of each alternative on the refuge physical environment would have similar minimal to negligible effects. Some disturbance to surface soils, topography, and vegetation would occur in areas selected for hunting; however effects would be minimal. Hunting would benefit vegetation as it is used to keep many resident wildlife populations in balance with the habitat’s carrying capacity. The refuge would also control access to minimize habitat degradation.

Impacts to the natural hydrology would have negligible effects. The refuge expects impacts to air and water quality to be minimal and only due to refuge visitors’ automobile and off-road vehicle emissions and run-off from road and trail sides. The effect of these

refuge-related activities on overall air and water quality in the region are anticipated to be relatively negligible. Existing State water quality criteria and use classifications are adequate to achieve desired on-refuge conditions; thus, implementation of the proposed action would not impact adjacent landowners or users beyond the constraints already implemented under existing State standards and laws.

Impacts associated with solitude are expected to be minimal given time and space zone management techniques, such as seasonal access and area closures, used to avoid conflicts among user groups.

#### **4.1.4. Cultural Resources**

Under each alternative, hunting, regardless of method or species targeted, is a consumptive activity that does not pose any threat to historic properties on and/or near the Refuge.

#### **4.1.5. Facilities**

Maintenance or improvement of existing facilities (i.e. parking areas, roads, trails, and boat ramps) will cause minimal short term impacts to localized soils and waters and may cause some wildlife disturbances and damage to vegetation.

### **4.2 Summary of Effects**

#### **4.2.1 Impacts to Habitat**

##### *No Action Alternative*

Under this alternative, additional acreage would not be opened to deer, beaver and hog hunting. When deer are overpopulated, they overbrowse their habitat, which can change the structure and plant composition of a forest. The refuge has reforested approximately 10,000 acres with bottomland hardwood tree species in recent years. Young tree seedlings (1-9 years old) can be killed by overbrowsing. Bottomland hardwood forests are a threatened ecosystem. Failure to establish this forest would have negative impacts on future resident and non-resident wildlife populations as well as the purpose of the refuge. Feral hogs are considered a threat to the biological integrity of the refuge because they are an extremely invasive, non-native species. By rooting and wallowing, feral hogs destroy wildlife habitat. Damage includes erosion along waterways and wetlands and the loss of native plants. Beavers can kill thousands of acres of bottomland hardwood trees by damming sloughs and brakes. Forests inundated into the growing season quickly show signs of stress and trees eventually die. Beavers can have negative impacts on future resident and non-resident wildlife by killing large portions of the few remaining intact bottomland hardwood forests remaining in the United States.

Although hunters would not be traversing across the 4,762 acres, which could cause damage to individual plants by trampling vegetation, non-consumptive users would still be able to walk throughout the area.

### *Proposed Action Alternative*

The biological integrity of the refuge would be protected under this alternative, and the refuge purpose of conserving wetlands for wildlife would be achieved. The hunting of hogs, beavers and deer would positively impact wildlife habitat by promoting plant health and diversity, reducing hog wallowing which destroys vegetation and compacts soils, and increasing tree seedling survival. Hunting of beavers would decrease their populations and in effect, increase the health of forested wetlands.

The additional acreage would be utilized more by the public (hunters) than previously which might cause increased trampling of vegetation. Impacts to vegetation should be minor. Hunter density is estimated to be an average of 1 hunter/1,000 acres throughout the hunting season. Refuge-regulations would not permit the use of ATVs off of designated trails. Vehicles would be confined to existing roads and parking lots.

#### **4.2.2 Impacts to Hunted Wildlife**

##### *No Action Alternative*

Additional mortality of individual hunted animals would not occur under this alternative. Disturbance by hunters to hunted wildlife would not occur; however, other public uses that cause disturbance, such as wildlife observation and photography, would still be permitted.

Deer, hog, beaver, coyote, raccoon and opossum populations could increase above the habitat's carrying capacity in the area not opened to hunting. The likelihood of starvation and diseases, such as bluetongue and EHD in deer and distemper and rabies in raccoon and opossum, would increase as would vehicle-deer collisions. Feral hogs can harbor several infectious diseases, some of which can be fatal to wildlife. Additionally, feral hogs compete directly for food with deer, bears, turkeys, squirrels and many other birds and mammals.

##### *Proposed Action Alternative*

Additional mortality of individual hunted animals would occur under this alternative, estimated by the refuge to be a maximum of 50 deer, 1,000 ducks, 70 snow geese, and 20 white-fronted geese annually. Estimates for other hunted species (raccoon, opossum, quail, squirrel, rabbit, dove, hog) would be less than 20 individuals per species. Hunting causes some disturbance to not only the species being hunted but other game species as well. However, time and space zoning established by refuge regulations would minimize incidental disturbance.

Hunting of deer, hog, beaver, coyote, raccoon and opossum would help maintain their populations at or below carrying-capacity. The likelihood of starvation and diseases, such as bluetongue and EHD in deer and distemper and rabies in raccoon and opossum, would be decreased as would deer-vehicle collisions. Reduction of the hog population would decrease risk of transmitting fatal diseases by hogs to other wildlife species.

Fewer hogs would decrease competition for food with native wildlife, such as deer, bear, turkey, and squirrel.

#### **4.2.3 Impacts to Non-hunted Wildlife**

##### *No Action Alternative*

Ground and shrub nesting birds and turtles are subject to high egg depredation rates if raccoon, coyotes, and opossum populations are not kept in check through harvest. In North Louisiana, research conducted on one population of alligator snapping turtles has shown that raccoons are responsible for depredating 93% of turtle nests (USFWS 2002). Under this alternative, feral hog populations would increase. Non-native hogs are predators of small mammals and deer fawns as well as ground-nesting birds such as turkeys.

Increased disturbance to non-hunted wildlife would not occur in the 4,762-acre area; however, non-consumptive users would still be permitted to access this land, which might cause disturbance to wildlife.

##### *Proposed Action Alternative*

Populations of raccoon, coyotes, and opossum would be decreased through hunting under this alternative. Depredation rates of songbirds, turkeys, turtles and their nests would decrease. Feral hog populations would be reduced thereby decreasing predation of deer fawns, turkeys and small mammals.

Disturbance to non-hunted wildlife would increase slightly. However, significant disturbance would be unlikely for the following reasons. Small mammals, including bats, are inactive during winter when hunting season occurs. These species are also nocturnal. Both of these qualities make hunter interactions with small mammals very rare. Hibernation or torpor by cold-blood reptiles and amphibians also limits their activity during the hunting season when temperatures are low. Hunters would rarely encounter reptiles and amphibians during most of the hunting season. Invertebrates are also not active during cold weather and would have few interactions with hunters during the hunting season. The refuge has estimated current hunter density on peak days to be no more than 1 hunter per 160 acres. During the vast majority of the hunting season, hunter density is much lower (1 hunter/1,000 acres). Refuge regulations further mitigate possible disturbance by hunters to non-hunted wildlife. Vehicles are restricted to roads and the harassment or taking of any wildlife other than the game species legal for the season is not permitted. Disturbance to the daily wintering activities, such as feeding and resting, of birds might occur, but would be transitory as hunters traverse habitat. Disturbance to birds by hunters would probably be commensurate with that caused by non-consumptive users.

#### **4.2.4 Impacts to Endangered and Threatened Species**

##### *No Action Alternative*

Because current public use levels on the refuge would remain the same, there would be no increased chance of adversely affecting threatened and endangered species.

##### *Proposed Action Alternative*

A potential disadvantage of this alternative is its effect on threatened and endangered species on the refuge such as the bald eagle, Louisiana black bear and red-cockaded woodpecker. However, a Section 7 Evaluation associated with this assessment was conducted, and it was determined that the proposed action is not likely to adversely affect these species (Refer to 2007 Section 7 Evaluation for Sport Hunting on Upper Ouachita NWR).

#### **4.2.5 Impacts to Refuge Facilities (roads, trails, parking lots, levees)**

##### *No Action Alternative*

Additional damage to roads and ATV trails due to hunter use during wet weather periods would not occur; however, other users would still be using roads, thereby necessitating periodic maintenance. Additionally, costs associated with an expanded hunting program in the form of road and levee maintenance, instructional sign needs, and law enforcement would not be applicable.

##### *Proposed Action Alternative*

Additional damage to roads and ATV trails due to hunter use during wet weather periods might occur. The current refuge hunt program on 37,522 acres for the past three decades has shown these impacts to be minimal. There would be some costs associated with a hunting program in the form of road and ATV trail maintenance, instructional sign needs, and law enforcement. These costs should be minimal relative to total refuge operations and maintenance costs and would not diminish resources dedicated to other refuge management programs.

#### **4.2.6 Impacts to Wildlife Dependant Recreation**

##### *No Action Alternative*

The public would not have the opportunity to harvest a renewable resource, participate in wildlife-oriented recreation that is compatible with the purposes for which the refuge was established, have an increased awareness of Upper Ouachita NWR and the National Wildlife Refuge System; nor would the Service be meeting public use demand. Public relations would not be enhanced with the local community. Under this alternative, youth would be unable to experience turkey hunting with an experienced guide. This would be a missed opportunity to participate in a partnership program with the National Wild Turkey Federation to promote youth, wildlife-dependant recreation.

### *Proposed Action Alternative*

As public use levels expand across time, unanticipated conflicts between user groups may occur. Experience has proven that time and space zoning (e.g., establishment of separate use areas, use periods, and restrictions on the number of users) is an effective tool in eliminating conflicts between user groups. Squirrel and rabbit hunters would not be able to use dogs until after the last deer gun hunt to ensure conflicts do not arise. Raccoon and opossum hunting (which the State allows to be open all year) would be limited to the squirrel and rabbit season during daylight hours and limited to January and December at nighttime. This would limit conflicts between raccoon/opossum hunters and deer gun hunters. This would also limit disturbance to wildlife during the spring and summer when most species reproduce. A youth turkey hunt coincides with no other hunt season and would provide youth the opportunity to hunt without having to compete with adults. Conflicts between hunters and non-consumptive users might occur but would be mitigated by time (non-hunting season) and space zoning. The refuge would focus non-consumptive use (mainly birdwatching and other wildlife viewing) in the 5,032 acres that is closed to hunting.

The public would be allowed to harvest a renewable resource, and the refuge would be promoting a wildlife-oriented recreational opportunity that is compatible with the purpose for which the refuge was established. The public would have an increased awareness of Upper Ouachita NWR and the National Wildlife Refuge System and public demand for more hunting would be met. The public would also have the opportunity to harvest a renewable resource in a traditional manner, which is culturally important to the local community. This alternative would also allow the public to enjoy hunting at no or little cost in a region where private land is leased for hunting, often costing a person \$300-\$2000/year for membership. This alternative would allow youth the opportunity to experience a wildlife-dependant recreation, instill an appreciation for and understanding of wildlife, the natural world and the environment and promote a land ethic and environmental awareness.

## **4.3 Cumulative Impacts Analysis**

### **4.3.1 Anticipated Direct and Indirect Impacts of Proposed Action on Wildlife Species.**

#### **4.3.1.1 Migratory Birds**

The U.S. Fish and Wildlife Service, working with partners, annually prescribe frameworks, or outer limits, for dates and times when hunting may occur and the number of birds that may be taken and possessed. These frameworks are necessary to allow State selections of season and limits for recreation and sustenance; aid Federal, State, and tribal governments in the management of migratory game birds; and permit harvests at levels compatible with population status and habitat conditions. Because the Migratory Bird Treaty Act stipulates that all hunting seasons for migratory game birds are closed unless specifically opened by the Secretary of the Interior, the Service annually promulgates regulations (50 CFR Part 20) establishing the frameworks from which States may select

season dates, bag limits, shooting hours, and other options for the each migratory bird hunting season. The frameworks are essentially permissive in that hunting of migratory birds would not be permitted without them. Thus, in effect, Federal annual regulations both allow and limit the hunting of migratory birds.

Migratory game birds are those bird species so designated in conventions between the United States and several foreign nations for the protection and management of these birds. Under the Migratory Bird Treaty Act (16 U.S.C. 703-712), the Secretary of the Interior is authorized to determine when "hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any ... bird, or any part, nest, or egg" of migratory game birds can take place, and to adopt regulations for this purpose. These regulations are written after giving due regard to "the zones of temperature and to the distribution, abundance, economic value, breeding habits, and times and lines of migratory flight of such birds, and are updated annually (16 U.S.C. 704(a)). This responsibility has been delegated to the U.S. Fish and Wildlife Service as the lead federal agency for managing and conserving migratory birds in the United States. Acknowledging regional differences in hunting conditions, the Service has administratively divided the nation into four Flyways for the primary purpose of managing migratory game birds. Each Flyway (Atlantic, Mississippi, Central, and Pacific) has a Flyway Council, a formal organization generally composed of one member from each State and Province in that Flyway. Upper Ouachita NWR is within the Mississippi Flyway.

The process for adopting migratory game bird hunting regulations, located in 50 CFR part 20, is constrained by three primary factors. Legal and administrative considerations dictate how long the rule making process will last. Most importantly, however, the biological cycle of migratory game birds controls the timing of data-gathering activities and thus the dates on which these results are available for consideration and deliberation. The process of adopting migratory game bird hunting regulations includes two separate regulations-development schedules, based on "early" and "late" hunting season regulations. Early hunting seasons pertain to all migratory game bird species in Alaska, Hawaii, Puerto Rico, and the Virgin Islands; migratory game birds other than waterfowl (e.g. dove, woodcock, etc.); and special early waterfowl seasons, such as teal or resident Canada geese. Early hunting seasons generally begin prior to October 1. Late hunting seasons generally start on or after October 1 and include most waterfowl seasons not already established. There are basically no differences in the processes for establishing either early or late hunting seasons. For each cycle, Service biologists and others gather, analyze, and interpret biological survey data and provide this information to all those involved in the process through a series of published status reports and presentations to Flyway Councils and other interested parties (USFWS 2006).

Currently, Upper Ouachita NWR has an average harvest of 3,500 ducks (primarily Mallards, Wood Ducks, Gadwalls, Green-winged Teal), snow geese, and white-fronted geese on 23,000 acres per season. Under the proposed action, Upper Ouachita NWR estimates a maximum additional 1,000 ducks, 70 snow geese, and 10 white-fronted geese would be harvested each year. Waterfowl hunting is only allowed until noon each day during the season, which is more restrictive than regulations set forth by Louisiana Department of Wildlife and Fisheries (LDWF). This harvest impact represents 0.1%,

0.1%, and 0.03%, respectively of Louisiana's four-year average harvest of 921,990 ducks, 60,830 snow geese, and 72,611 white-fronted geese (USFWS 2005). Expansion of waterfowl hunting on an additional 4,700 acres should not have cumulative impacts on waterfowl populations.

Because the Service is required to take abundance of migratory birds and other factors in to consideration, the Service undertakes a number of surveys throughout the year in conjunction with the Canadian Wildlife Service, State and Provincial wildlife-management agencies, and others. To determine the appropriate frameworks for each species, the Service considers factors such as population size and trend, geographical distribution, annual breeding effort, the condition of breeding and wintering habitat, the number of hunters, and the anticipated harvest. After frameworks are established for season lengths, bag limits, and areas for migratory game bird hunting, migratory game bird management becomes a cooperative effort of State and Federal Governments. After Service establishment of final frameworks for hunting seasons, the States may select season dates, bag limits, and other regulatory options for the hunting seasons. States may always be more conservative in their selections than the Federal frameworks but never more liberal. Season dates and bag limits for National Wildlife Refuges open to hunting are never longer or larger than the State regulations. In fact, based upon the findings of an environmental assessment developed when a National Wildlife Refuge opens a new hunting activity, season dates and bag limits may be more restrictive than the State allows. At Upper Ouachita NWR, season length is more restrictive for waterfowl and doves than the State allows.

NEPA considerations by the Service for hunted migratory game bird species are addressed by the programmatic document, "Final Supplemental Environmental Impact Statement: Issuance of Annual Regulations Permitting the Sport Hunting of Migratory Birds (FSES 88-14)," filed with the Environmental Protection Agency on June 9, 1988. We published Notice of Availability in the Federal Register on June 16, 1988 (53 FR 22582), and our Record of Decision on August 18, 1988 (53 FR 31341). Annual NEPA considerations for waterfowl hunting frameworks are covered under a separate Environmental Assessment, "Duck Hunting Regulations for 2006-07," and an August 24, 2006, Finding of No Significant Impact. Further, in a notice published in the September 8, 2005, Federal Register (70 FR 53376), the Service announced its intent to develop a new Supplemental Environmental Impact Statement for the migratory bird hunting program. Public scoping meetings were held in the spring of 2006, as announced in a March 9, 2006, Federal Register notice (71 FR 12216). More information may be obtained from: Chief, Division of Migratory Bird Management, U.S. Fish and Wildlife Service, Department of the Interior, MS MBSP-4107-ARLSQ, 1849 C Street, NWR, Washington, DC 20240.

Although woodcock are showing declines in numbers on their breeding grounds, habitat loss is considered to be the culprit, not hunting. This assertion was tested in a study conducted by the U.S. Geological Patuxent Wildlife Research Center in 2005 (McAuley *et al.* 2005). Results showed no significant differences in woodcock survival between hunted and non-hunted areas. Furthermore, the authors concluded that hunting was not having a considerable impact on woodcock numbers in the Northeast (McAuley *et al.* 2005).

An estimated 24,000 woodcock were harvested in the 2005/06 season in the state of Louisiana. Louisiana's harvest of 24,000 woodcock represented 0.5% of the estimated 4.6 million North American woodcock population. Limited woodcock habitat exists during most of the hunting season because back water flooding inundates the refuge. During extremely dry years, when more woodcock habitat becomes available, they may experience higher harvest rates. With such relatively few woodcock being currently harvested on the refuge, the opening of additional acreage to hunting as stated in the proposed action should have no cumulative effects on their local, regional or flyway populations.

#### 4.3.1.2 Resident Big Game

##### 4.3.1.2.1 Deer

Deer hunting does not have regional population impacts due to restricted home ranges. The average home range of a male deer in Mississippi is  $1,511 \pm 571$  S.D hectares. (Mott *et al.* 1985). Therefore, only local impacts occur. The Louisiana Dept of Wildlife and Fisheries (LDWF) recorded deer harvest rates on lands adjacent to the refuge from 1993-2003 on a 25,000-acre management area. An average of 213 deer per year was harvested during the 10-year period. Average weights of deer and lactation rates of females remained stable throughout (LDWF 2003). LDWF biologists sought to hold an extra either-sex hunt to further reduce the deer herd but were unable due to a lack of funding (LDWF, *personal comm.*).

Deer herd health checks are conducted every 5 years on Upper Ouachita NWR by the Southeast Cooperative Wildlife Disease Study at the University of Georgia. In 2003, the health check report stated that "...from a health perspective the [deer] population density probably needs to be contained near its present level". The 37,522 acres of refuge lands currently open to deer gun hunting for 7 days have averaged less than 100 deer harvested per year.

Harvest and survey data confirm that decades of deer hunting on surrounding private lands (using bait and a longer season) have not had a local cumulative adverse effect on the deer population. LDWF estimate 209,200 deer were harvested throughout the state in 2005/06. The average annual statewide harvest since 1995 is 234,000 deer. The refuge estimates an additional maximum 50 deer would be harvested under the proposed action, representing only 0.02% of the long-term average state harvest. Expansion of hunting on 4,762 acres of refuge lands for a very limited deer gun hunt (only 7-9 days without bait) should not have cumulative impacts on the deer herd.

##### 4.3.1.2.2 Feral Hogs

Feral hogs are an extremely invasive introduced, non-native species and is not considered a game species by the State of Louisiana. No bag limits are established for feral hogs. Hunting of feral hogs provides the refuge with another management tool in reducing this detrimental species, and at the same time, is widely enjoyed by local hunters. Cumulative effects to an exotic, invasive species should not be of concern because the

refuge would like to extirpate this species on refuge lands. Hunting of hogs is not considered detrimental to the biological integrity of the refuge, is not likely to create conflict with other public uses and is within the wildlife dependant public uses to be given priority consideration. Since hogs are exotic, they are a priority species for refuge management only in terms of their negative impacts on refuge biota and need for eradication. They are a popular game species though, and the public interest would best be served by allowing this activity on the refuge. However, even with hunting, feral hogs are likely to always be present because they are prolific breeders.

#### 4.3.1.2.3 Wild Turkey

Turkeys are non-migratory and therefore hunting only impacts the local population. Proposed turkey hunting on the refuge would be limited to a 1/2 day hunt for 10 youths during the spring. The hunting area would be confined to a small section of uplands on the western side of the refuge. State biologists with LDWF have trapped and banded turkeys in North Louisiana, some adjacent to the refuge, for the past several years. Data from banding indicate that turkey harvest rates of 15 % for north Louisiana during 2002-06 is well below the scientifically accepted threshold of 30% (Vangilder 1992). LDWF, with help from refuge staff, conducts turkey brood surveys each spring on and adjacent to the refuge. Data indicate that poults per hen ratios average 3.5 over the past 11 years, which is considered "very good" by the Southeast Wild Turkey Technical Committee (Savage 2005). These data indicate that the local turkey population has withstood hunting on surrounding private lands for several years without negative cumulative effects on turkeys. Therefore the refuge should not cumulatively impact the population by providing a 1/2 day hunt for 10 youth that could harvest a maximum of 10 turkeys.

#### 4.3.1.3 Small Game (Squirrel, Rabbit, Raccoon, Opossum, Coyote, Beaver and Quail)

Squirrels, rabbit, raccoon, and opossum cannot be affected regionally by refuge hunting because of their limited home ranges. Only local effects will be discussed. Opossum and raccoon are hunted primarily at night. Raccoon are more sought after than opossum by the public. Hunting helps regulate opossum and raccoon populations; however, unless the popularity of this type of hunting increases, raccoons and opossums numbers will always be higher than desired. When these species become extremely overabundant, diseases such as distemper and rabies reduce the populations. However, waiting for disease outbreak to regulate their numbers can be a human health hazard. Cumulative impacts to raccoon and opossum are unlikely considering they reproduce quickly, are difficult to hunt due to their nocturnal habits, and are not as popular for hunting as other game species.

Studies have been conducted within and outside of Louisiana to determine the effects of hunting on the population dynamics of small game. Results from studies have consistently shown that small game, such as rabbits and squirrels, are not affected by hunting, but rather are limited by food resources. The refuge consulted with biologists at LDWF in association with this assessment on the cumulative impacts of hunting on rabbits and squirrel. The statewide Louisiana harvest for 2005/06 was estimated at 1,253,900. On Upper Ouachita NWR, from 2001-2004, hunter harvest data reports

indicated a peak of 73 squirrels/season, representing 0.006% of the state's harvest. LDWF estimated 255,200 rabbits killed by hunters in the 2005/06 season. Under the proposed action, the refuge estimates a maximum additional 50 rabbits would be harvested, representing only 0.02% of the statewide harvest. Gray squirrels, fox squirrels, eastern cottontails, and swamp rabbits are prolific breeders and their populations have never been threatened by hunting in Louisiana even prior to the passing of hunting regulations as we know them today.

Quail are non-migratory and therefore are not regionally affected by hunting. Only local effects will be discussed. The early successional habitat that quail favor is not abundant on the refuge; therefore, quail hunting is limited. Studies by the LDWF indicate that a harvest of <30% in the southeast should be sustainable. Past surveys by refuge staff have found that an average of 1.3 quail were harvested from 2001-2004. The harvesting of less than 2 quail per year should not have cumulative effects on their local population.

Coyotes and beaver cannot be affected regionally by refuge hunting because of their limited home ranges. Only local effects will be discussed. Coyotes and beaver reproduce rapidly, are overpopulated, and can have adverse effects on their habitats. Coyotes depredate small mammals, songbirds and their nests, turkey and quail nests and any other animal they opportunistically encounter. When coyote numbers are high, local wildlife populations can be negatively affected. Coyotes are probably the most resilient species in North America. Today regulated hunting has no cumulative impact on their populations. Hunting of both coyotes and beaver is beneficial in helping meet refuge objectives.

#### 4.3.1.4 Non-hunted Wildlife

Non-hunted wildlife would include non-hunted migratory birds such as songbirds, wading birds, raptors, and woodpeckers; small mammals such as voles, moles, mice, shrews, and bats; reptiles and amphibians such as snakes, skinks, turtles, lizards, salamanders, frogs and toads; and invertebrates such as butterflies, moths, other insects and spiders. Except for migratory birds and some species of migratory bats, butterflies and moths, these species have very limited home ranges and hunting could not affect their populations regionally; thus, only local effects will be discussed.

Disturbance to non-hunted migratory birds could have regional, local, and flyway effects. Regional and flyway effects would not be applicable to species that do not migrate such as most woodpeckers, and some songbirds including cardinals, titmice, wrens, chickadees, etc. The cumulative effects of disturbance to non-hunted migratory birds under the proposed action are expected to be negligible for the following reasons. Hunting season would not coincide with the nesting season. Long-term future impacts that could occur if reproduction was reduced by hunting are not relevant for this reason. Disturbance to the daily wintering activities, such as feeding and resting, of birds might occur. Disturbance to birds by hunters would probably be commensurate with that caused by non-consumptive users.

The cumulative effects of disturbance to non-hunted wildlife under the proposed action are expected to be negligible for the following reasons. However, disturbance would be unlikely for the following reasons. Small mammals, including bats, are inactive during

winter when hunting season occurs. These species are also nocturnal. Both of these qualities make hunter interactions with small mammals very rare. Hibernation or torpor by cold-blood reptiles and amphibians also limits their activity during the hunting season when temperatures are low. Hunters would rarely encounter reptiles and amphibians during most of the hunting season. Encounters with reptiles and amphibians in the early fall are few and should not have cumulative effects on reptile and amphibian populations. Invertebrates are also not active during cold weather and would have few interactions with hunters during the hunting season. The refuge has estimated current hunter density on peak days to be no more than 1 hunter per 160 acres. During the vast majority of the hunting season, hunter density is much lower (1 hunter/1,000 acres). Refuge regulations further mitigate possible disturbance by hunters to non-hunted wildlife. Vehicles are restricted to roads and the harassment or taking of any wildlife other than the game species legal for the season is not permitted.

Although ingestion of lead-shot by non-hunted wildlife could be a cumulative impact, it is not relevant to Upper Ouachita NWR because the use of lead shot would not be permitted on the refuge for any type of hunting.

Some species of bats, butterflies and moths are migratory. Cumulative effects to these species at the "flyway" level should be negligible. These species are in torpor or have completely passed through North Louisiana by peak hunting season in Nov-Jan. Some hunting occurs during September and October when these species are migrating; however, hunter interaction would be commensurate with that of non-consumptive users.

#### 4.3.1.5 Endangered Species

Endangered and threatened species that utilize the refuge are red-cockaded woodpecker, bald eagle, and Louisiana black bear. A Section 7 Evaluation was conducted in association with this assessment for opening hunting on Upper Ouachita NWR. It was determined that the proposed alternative would not likely affect these endangered species.

Red-cockaded woodpeckers (RCW) only inhabit a small portion of the western side of the refuge where turkey hunting would occur. The turkey hunt which would occur in March would not be during the RCW nesting season and it would only be held for one half day each year. Many refuges and national forests which manage pine habitat for RCWs also offer turkey hunting throughout the entire turkey season with out adverse effects on the RCW population. Therefore, one half day of turkey hunting on Upper Ouachita NWR would not likely have any effects on red-cockaded woodpeckers.

Bald eagles currently winter in areas that are open to waterfowl, deer, and small game hunting without noticeable adverse effects. Actually, in the past few years, the number of bald eagles wintering on the refuge has increased. The active bald eagle nest is located in a "no hunting" area. The nest has been successful most years and eagles re-built the nest after Hurricane Rita destroyed it in 2005. The proposed expansion area is 1.3 miles south of the eagle nest.

Few Louisiana black bears occur on the refuge and encounters by hunters with bears would be rare. Prohibiting the use of bait would also contribute to keeping bear/hunter interactions low.

Refer to the Section 7 Evaluation for the 2007 Sport Hunting on Upper Ouachita NWR for more information.

#### **4.3.2 Anticipated Direct and Indirect Impacts of Proposed Action on Refuge Programs, Facilities, and Cultural Resources.**

##### **4.3.2.1 Wildlife-Dependant Recreation**

As public use levels expand across time, unanticipated conflicts between user groups may occur. The Refuge's visitor use programs would be adjusted as needed to eliminate or minimize each problem and provide quality wildlife-dependent recreational opportunities. Experience has proven that time and space zoning (e.g., establishment of separate use areas, use periods, and restrictions on the number of users) is an effective tool in eliminating conflicts between user groups.

The level of recreation use and ground-based disturbance from visitors would be largely concentrated at trails and the Refuge's office and maintenance areas. This, combined with the addition of increased hunting opportunity, could have a negative effect on nesting bird populations. However, the hunting season (except for the limited turkey hunt) is during the winter and not during most birds' nesting period. It is unlikely that bald eagles would establish nests near developed facilities or during the hunting season.

The opportunities for hunting would expand under the proposed action. High deer numbers are recognized as a problem causing crop damage, reducing some forest understory species, and reducing reforestation seedling survival. Hunting would be used to keep the deer herd and other resident wildlife in balance with the habitat's carrying capacity, resulting in long-term positive impacts on wildlife habitat.

The refuge would control access under this alternative to minimize wildlife disturbance and habitat degradation, while allowing current and proposed compatible wildlife-dependent recreation. Some areas, such as waterfowl sanctuaries, would be closed seasonally to hunting to minimize disturbance to wintering waterfowl.

##### **4.3.2.2 Refuge Facilities**

The Service defines facilities as: "Real property that serves a particular function(s) such as buildings, roads, utilities, water control structures, raceways, etc." Under the proposed action those facilities most utilized by hunters are: roads, parking lots, trails and boat launching ramps. Maintenance or improvement of existing facilities (i.e. parking areas, roads, trails, and boat ramps) will cause minimal short term impacts to localized soils and waters and may cause some wildlife disturbances and damage to vegetation. The facility maintenance and improvement activities described are periodically conducted to accommodate daily refuge management operations and general public uses such as wildlife observation and photography. These activities will be conducted at times

(seasonal and/or daily) to cause the least amount of disturbance to wildlife. Siltation barriers will be used to minimize soil erosion, and all disturbed sites will be restored to as natural a condition as possible. During times when roads are impassible due to flood events or other natural causes those roads, parking lots, trails and boat ramps impacted by the event will be closed to vehicular use.

#### 4.3.2.3 Cultural Resources

Hunting, regardless of method or species targeted, is a consumptive activity that does not pose any threat to historic properties on and/or near the Refuge. In fact, hunting meets only one of the two criteria used to identify an "undertaking" that triggers a federal agency's need to comply with Section 106 of the National Historic Preservation Act. These criteria, which are delineated in 36 CFR Part 800, state:

- 1- an undertaking is any project, activity, or program that can alter the character or use of an archaeological or historic site located within the "area of potential effect;" and
- 2- the project, activity, or program must also be either funded, sponsored, performed, licenses, or have received assistance from the agency.

Consultation with the pertinent State Historic Preservation Office and federally recognized Tribes are, therefore, not required.

#### 4.3.3 Anticipated Impacts of Proposed Hunt on Refuge Environment and Community.

The refuge expects no sizeable adverse impacts of the proposed action on the refuge environment which consists of soils, vegetation, air quality, water quality and solitude. Some disturbance to surface soils and vegetation would occur in areas selected for hunting; however impacts would be minimal. Hunting would benefit vegetation as it is used to keep many resident wildlife populations in balance with the habitat's carrying capacity. The refuge would also control access to minimize habitat degradation.

The refuge expects impacts to air and water quality to be minimal and only due to refuge visitors' automobile and off-road vehicle emissions and run-off on road and trail sides. The effect of these refuge-related activities, as well as other management activities, on overall air and water quality in the region are anticipated to be relatively negligible, compared to the contributions of industrial centers, power plants, and non-refuge vehicle traffic. Existing State water quality criteria and use classifications are adequate to achieve desired on-refuge conditions; thus, implementation of the proposed action would not impact adjacent landowners or users beyond the constraints already implemented under existing State standards and laws.

Impacts associated with solitude are expected to be minimal given time and space zone management techniques, such as seasonal access and area closures, used to avoid conflicts among user groups.

The refuge would work closely with State, Federal, and private partners to minimize

impacts to adjacent lands and its associated natural resources; however, no indirect or direct impacts are anticipated. The newly opened hunts would result in a net gain of public hunting opportunities positively impacting the general public, nearby residents, and refuge visitors. The refuge expects increased visitation and tourism to bring additional revenues to local communities but not a significant increase in overall revenue in any area.

#### **4.3.4 Other Past, Present, Proposed, and Reasonably Foreseeable Hunts and Anticipated Impacts**

Cumulative effects on the environment result from incremental effects of a proposed action when these are added to other past, present, and reasonably foreseeable future actions. While cumulative effects may result from individually minor actions, they may, viewed as a whole, become substantial over time. The proposed hunt plan has been designed so as to be sustainable through time given relatively stable conditions. Changes in refuge conditions, such as sizeable increases in refuge acreage or public use, are likely to change the anticipated impacts of the current plan and would trigger a new hunt planning and assessment process.

The implementation of any of the proposed actions described in this assessment includes actions relating to the refuge hunt program (see 2007 Sport Hunting Plan for Upper Ouachita NWR). These actions would have both direct and indirect effects (e.g., new site inclusion would result in increased public use, thus increasing vehicular traffic, disturbance, etc); however, the cumulative effects of these actions are not expected to be substantial.

The past refuge hunting program has been very similar to the proposed action in season lengths, species hunted, and bag limits. Changes to the hunt program in the past decade have been made to open hunting on more land within the refuge. These lands were usually those that had been recently acquired. The refuge does not foresee any changes to the proposed action in the way of increasing the intensity of hunting in the future.

#### **4.3.5 Anticipated Impacts if Individual Hunts are Allowed to Accumulate**

National Wildlife Refuges, including Upper Ouachita NWR, conduct hunting programs within the framework of State and Federal regulations. Upper Ouachita NWR is at least as restrictive as the State of Louisiana (squirrel, rabbit, quail, woodcock) and in many cases more restrictive (deer, hog, waterfowl, raccoon, opossum, coyote, beaver, dove). By maintaining hunting regulations that are as, or more, restrictive than the State, individual refuges ensure that they are maintaining seasons which are supportive of management on a more regional basis. The proposed hunt plan has been reviewed and is supported by the Louisiana Dept. of Wildlife and Fisheries. Additionally, refuges coordinate with LDWF annually to maintain regulations and programs that are consistent with the State management program.

## **Chapter 5 Consultation and Coordination with Others**

The Louisiana Department of Wildlife and Fisheries (LDWF) concurs and fully supports the regulated consumptive public use of the natural resources associated with the Upper Ouachita NWR (Refer to Letters of Concurrence). The Fish and Wildlife Service also provided an in depth review by the Regional Office personnel and staff biologists. Numerous contacts were made throughout the area of the refuge soliciting comments, views, and ideas into the development of the accompanying hunting plan.

## Appendix Literature References

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## Appendix      Response to Public Comments

The Service solicited public comment for the 2007 Sport Hunt Plan and associated Environmental Assessment. The 30-day review period began February 14, 2007 and ended on March 14, 2007. Copies of the document were placed in four libraries within three parishes, and news releases announcing its availability for comment were placed in three local newspapers.

Fourteen comments by the public were received, thirteen of which were in favor of the Proposed Action to implement the 2007 Sport Hunt Plan which would open hunting on 4,762 acres of Upper Ouachita NWR and open a youth turkey hunt. One comment, by the Humane Society of the United States (HSUS), was against opening Upper Ouachita NWR to hunting. Comments by the HSUS are summarized and responded to below.

The HSUS “objects to the inadequate notice and amount of time for commenting” on the document. The Service solicited comments during the 30-day review period from February 14 through March 14, 2007. Announcements of the public review period were placed in three newspapers and copies of the document were placed in four libraries.

The HSUS stated that the Refuge Improvement Act does not “relieve the [Service] of its obligations to consider the environmental impacts of, and alternatives to, the agency’s decisions with regard to hunting...” Comment is noted.

The HSUS states that the Service must ensure the availability of sufficient funds before approving hunting on the refuge. This comment refers to the Refuge Recreation Act. Sufficient funds are available to implement the 2007 Sport Hunt Plan for Upper Ouachita NWR as stated within the hunt plan on pages 7 and 11.

The HSUS states they are opposed to the hunt plan and believe it violates the National Environmental Policy Act (NEPA). Comment is noted.

The HSUS states that the environmental assessment “fails to comport with the Court’s August 2006 decision”, referring to court case The Fund for Animals v. Hall. The Service notes the comment.

The HSUS states that the Service has not completed the Refuges 2003 Plan and Environmental Impact Statement (EIS). The Service notes the comment.

The HSUS states that the hunt plan and environmental assessment must provide a purpose and need for hunting on the refuge. The Service notes the comment.

The HSUS believes that there are adverse impacts by refuge uses for the past few decades and that an EIS is needed. The Service notes the comment.

The HSUS states that the Service must complete a Section 7 evaluation. Upper Ouachita NWR completed an Intra-Service Section 7 Biological Evaluation as part of the hunt plan and assessment.

The HSUS states that the Service has compromised the biological integrity of refuges by allowing hunting and that the Service does not consider impacts of hunters on non-consumptive users. The HSUS also claims that hunting and the number of hunters is decreasing and the Service has not capitalized on potential economic gain that would come from non-consumptive users. The Service notes these comments.

The HSUS states that deer overpopulation is not a scientific term and that deer herbivory changing plant communities is not necessarily negative. Numerous studies have been published on the negative impacts of overpopulated deer on native vegetation and plant communities. Based on the best biological information available and refuge staff expertise, the Service holds to the view that overpopulated deer have negative impacts on vegetation.

The HSUS states that woodcock, American black ducks, pintail, greater and lesser scaup, and king rails should not be hunted because their populations are declining. The Service relies on the Migratory Bird Sport Hunting Frameworks to set hunting regulations of migratory birds annually. The Frameworks are based on the best biological information available.

The HSUS states that the lack of hunter check stations on the refuge makes it impossible to prevent poaching of target and non-target wildlife species. Adequate law enforcement personnel are available throughout the hunting season to enforce hunting regulations.

The HSUS states that the environmental assessment on page 6 approximates 40,000 visitors to the refuge each year and that most visitors are consumptive users. The HSUS believes this implies there are tens of thousands of hunters using the refuge. 40,000 visitors should be more clearly expressed as 40,000 visits annually. For example, there may be 1,000 visitors that come to the refuge 40 times per year. The Service agrees this statement was confusing and has reworded the sentence in the document. In addition, the 40,000 visits are mostly for fishing, which is also a consumptive use.

The HSUS states that the environmental assessment "does not adequately address the cumulative impacts of hunting across the entire Refuge system nor even, for that matter, the region of the state in which the refuge resides". The comment is noted for the entire refuge system. The Service revised cumulative impact analysis to ensure it was adequately addressed at the state level. The refuge fits its hunting program within the State of Louisiana's regulations which take into consideration the cumulative impacts of hunting across the state.

The HSUS states that the environmental assessment does not adequately address the cumulative direct and indirect impacts of hunting on wildlife recreation, refuge facilities, cultural resources, the environment, and the community. The Service notes the comment.

The HSUS states that the environmental assessment does not consider temporal or monetary investments necessary to isolate consumptive and non-consumptive users on the refuge. The Service notes the comment.

The HSUS states that in the cumulative impacts analysis, the environmental assessment states in the beginning that cumulative effects “may result from individually minor action, they may, viewed as a whole, become substantial over time”, and then later, states “... the cumulative effects of these actions are not expected to be substantial.” The HSUS feels these two statements are contradictory. The Service disagrees. The first statement is the context for why a cumulative impact analysis is conducted and the second statement is the Service’s conclusion after the analysis is completed.

The HSUS states that the environmental assessment does not justify the cumulative impacts of hunting on targeted wildlife species. The Service notes the comment.

Sport Hunting

Decision Document Package

for

**UPPER OUACHITA NWR**

**Contents**

3. FONSI

## FINDING OF NO SIGNIFICANT IMPACT

### 2007 Sport Hunting Plan for Upper Ouachita National Wildlife Refuge

**The U.S. Fish and Wildlife Service proposes to expand areas open to hunting by 4,762 acres on Upper Ouachita NWR and open a limited youth turkey hunt.** Hunting activities will be permitted, but administratively limited to those areas specified in the refuge-specific regulations. All or parts of the refuge may be closed to hunting at any time if necessary for public safety, to provide wildlife sanctuary, or for other reasons. Alternatives considered included: proposed action and no action.

**The Service has analyzed the following alternatives to the proposal in an Environmental Assessment (copy attached):**

No action alternative - Under this alternative, hunting would be limited to areas currently open to hunting and to species currently allowed to be hunted. There would be no change to current public use and wildlife management programs.

Proposed action Under this alternative, hunting would be expanded on 4,762 acres on Upper Ouachita NWR and a limited youth turkey hunt would be opened.

**The preferred alternative was selected over the other alternatives because:**

1. The preferred alternative would allow the refuge to manage wildlife populations, allow the public to harvest a renewable resource, promote a wildlife-oriented recreational opportunity, increase awareness of Upper Ouachita NWR and the National Wildlife Refuge System, and meet public demand.
2. The preferred alternative is compatible with general Service policy regarding the establishment of hunting on National Wildlife Refuges.
3. The preferred alternative is compatible with the purpose for which Upper Ouachita NWR was established.
4. This proposal does not initiate widespread controversy or litigation.
5. There are no conflicts with local, state, regional, or federal plans or policies.

**Implementation of the agency's decision would be expected to result in the following environmental, social, and economic effects:**

1. The refuge could better manage wildlife populations.
2. This would allow the public to harvest a renewable resource.
3. The public would have increased opportunity for wildlife-oriented recreation.
4. Local businesses would benefit from hunters visiting from surrounding parishes.
5. The Service will be perceived as a good steward of the land by continuing

traditional uses of land in Louisiana and by allowing youth an opportunity to learn about hunting.

**Measures to mitigate and/or minimize adverse effects have been incorporated into the proposal. These measures include:**

1. Youth turkey hunt will be limited to 10 youth for ½ day in a limited area of the refuge
2. Baiting will be prohibited. Gun deer hunting will be limited to 7-9 days rather than the entire state season.
3. Waterfowl hunting will be limited to 12:00 noon.
4. The refuge law enforcement program and closely regulated hunting season will ensure hunt regulation compliance and will protect refuge resources.

**The proposal is not expected to have any significant adverse effects on wetlands and flood plains, pursuant to Executive Orders 11990 and 11988 because this area has historically had a high use of recreational hunting with no detrimental long-term effect on wetlands.**

**The proposal has been thoroughly coordinated with all interested and/or affected parties. Parties contacted include:**

- U.S. Fish and Wildlife Service, Division of Ecological Services, Lafayette, LA
- Louisiana Department of Wildlife and Fisheries, Office of the Secretary, Wildlife Division

**Copies of the Environmental Assessment are available by writing:**

Upper Ouachita National Wildlife Refuge  
11372 Hwy 143  
Farmerville, LA 71241

**Therefore, it is my determination that the proposal does not constitute a major Federal action significantly affecting the quality of the human environment under the meaning of section 102(2)(c) of the National Environment Policy Act of 1969 (as amended). As such, an environmental impact statement is not required. This determination is based on the following factors (40 CFR 1508.27):**

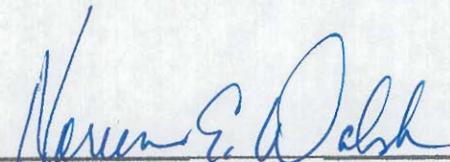
(for each factor list the page numbers of the EA where the factor was discussed.)

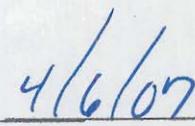
1. **Both beneficial and adverse effects have been considered and this action will not have a significant effect on the human environment (EA, page 16-20)**

2. The actions will not have a significant effect on public health and safety (EA, page 15).
3. The project will not significantly effect any unique characteristics of the geographic area such as proximity to historical or cultural resources, wild and scenic rivers, or ecologically critical areas (EA, page 16, 19, 28).
4. The effects on the quality of the human environment are not likely to be highly controversial (EA, page 14).
5. The actions do not involve highly uncertain, unique, or unknown environmental risks to the human environment (EA, page 15, 16).
6. The actions will not establish a precedent for future actions with significant effects nor does it represent a decision in principle about a future consideration (EA, pages 29).
7. There will be no cumulative significant impacts on the environment. Cumulative impacts have been analyzed with consideration of other similar activities on adjacent lands, in past action, and in foreseeable future actions (EA, pages 20-30).
8. The actions will not significantly affect any site listed in, or eligible for listing in, the National Register of Historic Places, nor will they cause loss or destruction of significant scientific, cultural, or historic resources (EA, pages 16, 28).
9. The actions are not likely to adversely affect endangered or threatened species, or their habitats (Intra-Service Section 7 Biological Evaluation Form attached to EA).
10. The actions will not lead to a violation of federal, state, or local laws imposed for the protection of the environment (EA, pages 30).

**References:** Environmental Assessment of 2007 Sport Hunt Plan for Upper Ouachita NWR, Hunting Plan, Compatibility Determination, Letters of Concurrence, Refuge-specific Regulations, Intra-Service Section 7 Evaluation

Acting

  
Regional Director

  
Date