

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 Sport Hunt Plan for Cahaba River National Wildlife Refuge in Bibb County, Alabama:

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.

X _____ 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.

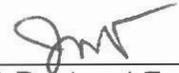
_____ is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.

_____ 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, 2004

Signature Approval:

	<u>4/10/07</u>		<u>4/19/07</u>
(1) Originator	Date	(2) Regional Environmental Coordinator	Date

	<u>4/19/2007</u>		<u>4/26/07</u>
(3) Regional Chief, NWRS, Southeast Region	Date	(4) Regional Director, Southeast Region	Date

ENVIRONMENTAL ASSESSMENT

2007 Sport Hunt Plan

on

Cahaba River National Wildlife Refuge

Bibb County, Alabama

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February 2007**

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1.0 PURPOSE AND NEED FOR ACTION

1.1 Introduction

In response to a 2003 lawsuit filed by the Fund for Animals, the U.S. Fish and Wildlife Service (Service) will amend or rewrite environmental assessments that describe hunting programs at twenty-three national wildlife refuges located in the Southeast Region. The new environmental assessments will address the cumulative impacts of hunting at all refuges which were named in or otherwise affected by the lawsuit. This document addresses the hunting programs at Cahaba River National Wildlife Refuge (Refuge) in Alabama.

The Service proposes to adopt the 2007 Sport Hunting Plan for Refuge. Proposed uses within the plan have been determined to be appropriate and compatible with the Refuge System and the purpose for which the refuge was established. On September 25, 2002 the Service established the refuge and acquired initial refuge lands. By May 30th 2005, 3,414 acres had been acquired. In February 2004, the Regional Director (Southeast Region) of the Service authorized the expansion of the acquisition boundaries of the refuge to include an additional 340 acres of property at the confluence of the Cahaba and Little Cahaba Rivers. On October 17, 2006, Public Law No: 109-363 was signed by the President authorizing the further expansion of the acquisition boundary by 3,600 acres. These expansions will allow us to better manage the refuge, further protect the Cahaba River, and also provide greater protection to several species of plants that are known from nowhere else in the world. The remaining acreage will be acquired, from willing sellers, as funding is appropriated.

The establishment of Cahaba River National Wildlife Refuge was approved through a Congressional Act in 2002 to: (1) conserve, enhance, and restore the native aquatic and terrestrial community characteristics of the Cahaba River; (2) to conserve, enhance, and restore habitat to maintain and assist in the recovery of animals and plants that are listed as threatened or endangered species; (3) to ensure that hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation are the priority general public uses of the refuge when providing opportunities for compatible fish- and wildlife-oriented recreation; and (4) to encourage the use of volunteers and to facilitate partnerships among the Service, local communities, conservation organizations, and other non-federal entities when promoting public awareness of the refuge's resources and those of the National Wildlife Refuge System. This notice was published under the authority of the Cahaba River National Wildlife Refuge Act, Public Law 106-331, and the National Wildlife Refuge System Administration Act of 1996, as amended (16 U.S.C., 668dd-668ee).

This document considers the proposed Sport Hunt Plan (*Preferred alternative*) along with the *No Action Alternative, Lottery Drawing Alternative and Deer Only Alternative*.

1.1.1 Refuge Mission

The mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans” (National Wildlife Refuge System Improvement Act of 1997). National Wildlife Refuges provide important habitat for native plants and many species of mammals, birds, fish, insects, amphibians, and reptiles. They also play a vital role in preserving endangered and threatened species. Refuges offer a wide variety of wildlife-dependent recreational opportunities and many have visitor centers, wildlife trails, and environmental education programs. Nationwide, about 30 million visitors annually hunt, fish, observe and photograph wildlife, or participate in educational and interpretive activities on refuges.

Wildlife-dependent recreational uses, including hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation, are identified as priority uses in the National Wildlife Refuge System Improvement Act of 1997. Hunting was reviewed and considered for compatibility during development of the Sport Hunting Plan. Sport Hunting, as described in the *Preferred Alternative*, was found to be compatible with the purpose of the Refuge and the mission of the National Wildlife Refuge System.

The historical background and description of natural and cultural resources on the Refuge can be found in the Refuge’s Habitat Management Plan (USFWS 2007).

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

The assessment of possible hunting options was evaluated through the following four alternatives.

- Alternative 1 (No Action - No Hunting Programs)
- Alternative 2 (Lottery Drawing)
- Alternative 3 (Deer Hunting Only)
- Alternative 4 (Preferred Alternative – Sport Hunting Plan)

2.1 Alternative 1: No Action – No Hunting

Under this alternative, the Refuge remains closed to hunting and refuge activities are limited to natural resource management, protection and other public uses. This alternative represents existing baseline conditions with establishment of a new National Wildlife Refuge.

2.2 Alternative 2: Lottery Drawing

Under this alternative, the Refuge would coordinate with the State of Alabama for a lottery drawing to facilitate hunting within the Refuge boundaries. This would allow the priority, wildlife dependent public use of hunting to occur within designated areas of the Refuge while limiting the number of hunters to a designated level. Hunting would be subject to general refuge system regulations, refuge-specific regulations similar to those outlined in the Hunting Plan and state regulations.

2.3 Alternative 3: Deer Hunting Only

This alternative would limit hunting to white-tailed deer. No limits would be placed on the number of hunters. No other game species would be hunted.

2.4 Alternative 4: Preferred Alternative – Sport Hunt Plan

Under the *Preferred Alternative*, the Service will allow hunting to occur in conjunction with Alabama Division of Wildlife and Freshwater Fisheries (ADWFF) hunting seasons. No lottery drawing will occur to limit the number of hunters. Hunting would be subject to general refuge system regulations, refuge-specific regulations as outlined in the Sport Hunting Plan and state regulations.

Alternative 4 (Sport Hunting Plan) was selected as the *Preferred Alternative*. Both legislation and comments received at the public meeting (March 18, 2004) supported a plan that provided for a broad range of hunting opportunities. This option provides maximum public use and access to the Refuge, while also protecting sensitive habitats. The environmental assessment will evaluate the *Preferred Alternative* in detail, while considering adverse or positive effects related to the other three alternatives.

3.0 AFFECTED ENVIRONMENT

This section describes the environment that will be affected through the four alternatives. A detailed description of the natural, social and cultural environment on the Refuge can be found in the Refuge Habitat Management Plan (USFWS 2007). The following sections provide an overview of resources issues to be considered for the *Preferred Alternative*, *No Action Alternative*, *Lottery Drawing Alternative* and *Deer Only Alternative*.

3.1 Introduction

The Refuge is located near the town of West Blocton in Bibb County, Alabama. The City of Birmingham is located 30 miles to the northeast, while Montgomery is 65 miles to the southeast (Figure 1). The 3,414 acre refuge was legislatively established on September 25, 2002 on former private and commercial timberlands bordering the Cahaba River (Figure 2). Approximately 3 miles of the Cahaba River flow through the refuge. The Cahaba River (below mean-low water) is considered “state waters” and owned by the State of Alabama.

The Refuge is located near the southern edge of the Ridge and Valley, less than 10 miles north of the Fall Line. Mohr (1901) described the region as the “Lower Hill Country” and botanically regarded the area as a subdivision of the more northern mountain region. Harper (1942) placed the Refuge within his “Coal Basin Region”. More recently, Griffith et al. (2001) placed the Refuge within the Southern Sandstone Ridges Sub-Ecoregion of the Ridge and Valley.

3.2 Physical Environment

The landscape is characterized by rolling hills with steep ravines along the river and tributary streams. Topography ranges from 220 feet (ASL) along the river to 560 feet (ASL) on some hilltops. Topography has been altered due to historic strip-mining on northern portions of the refuge.

The Refuge is located within the 1,870 square mile Cahaba River watershed. Three miles of the Cahaba River flows through the refuge. Additional tributary streams on the refuge include Little Ugly and Caffee Creeks. Portions of the Little Cahaba River flow through and along the southern refuge boundary. Big Ugly Creek is just north of the refuge, while Pratt Creek is near the southern refuge boundary.

3.3 Vegetation

The Refuge is composed of upland ridges and slopes that support a variety of natural community types. The formation of these communities was influenced by elevation, slope, aspect and soils. In addition to geographic and physical factors, the introduction of fire has structurally changed the composition of many of these natural communities. Most of today’s natural communities reflect the absence of fire, and the successional trend to fire sensitive species and community types.

3.3.1 Mountain Longleaf Pine Forest.

Historically, this association may have occupied a significant portion of the refuge, but is now limited to remnants along the highest and most inaccessible ridges. Refuge communities that are covered with planted pine forest (both loblolly and longleaf) and native longleaf pine woodlands

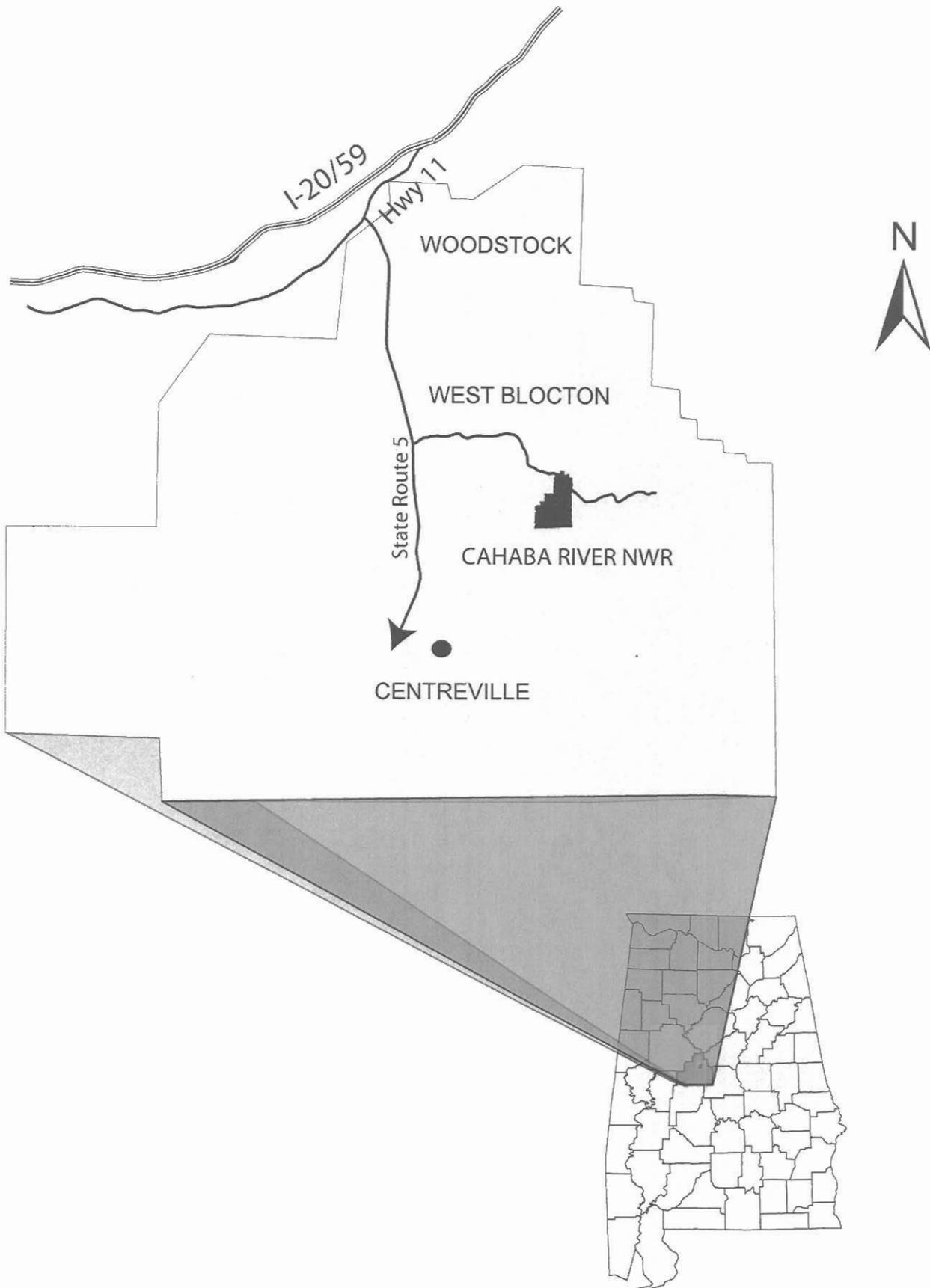


FIG. 1 CAHABA RIVER NATIONAL WILDLIFE REFUGE LOCATION

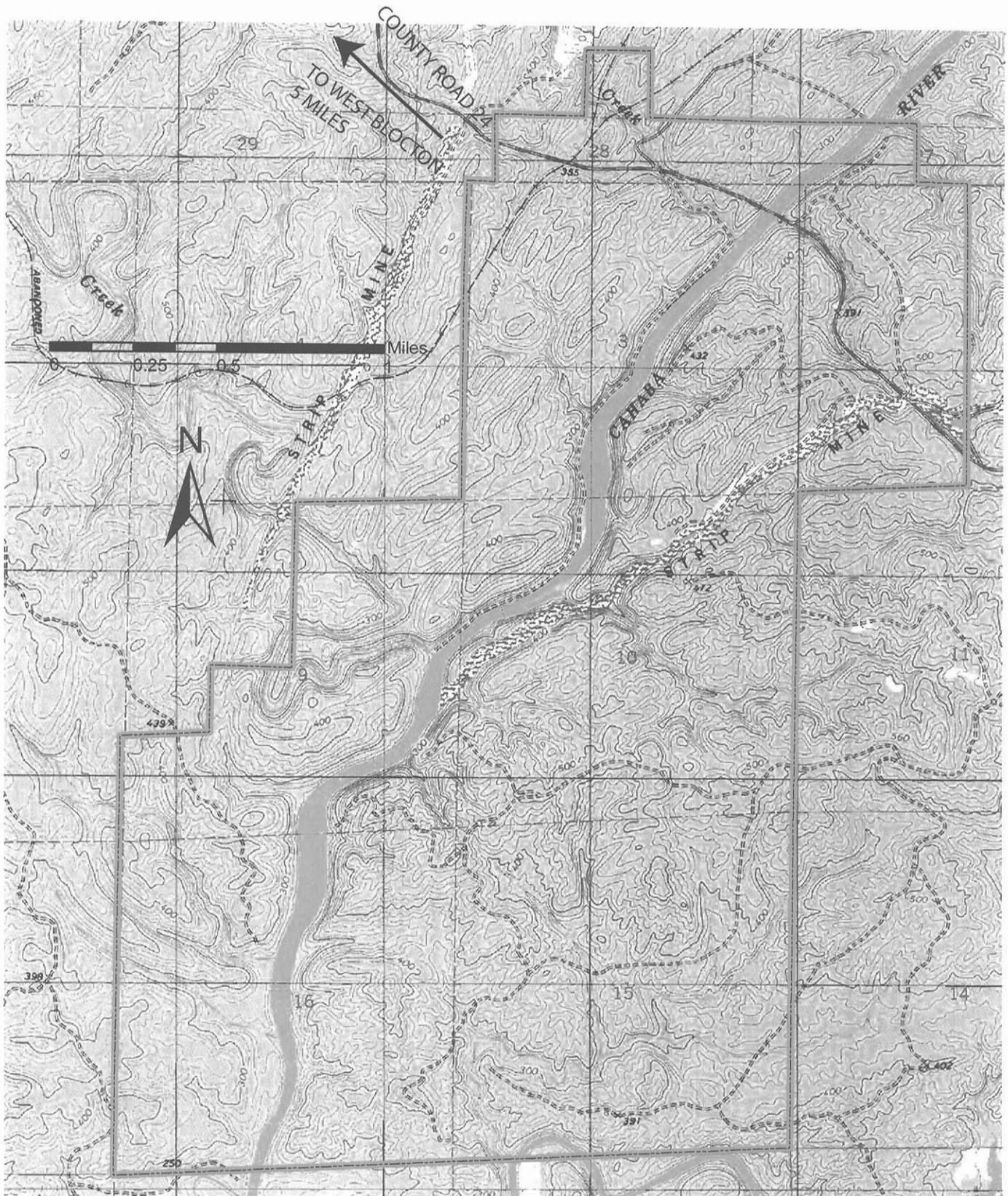


Fig. 2 Cahaba River National Wildlife Refuge Boundary

likely represent the historical distribution of longleaf pine on the refuge. With a higher fire frequency in presettlement forests, the canopy is believed to have been more open with a high diversity of forbs and grasses in the ground cover. Present day forests, however, are closed canopy stands characterized by a dense growth of trees and shrubs in the understory, often excluding most herbaceous plants.

The canopy, in addition to longleaf and shortleaf pines, often includes (presumably due to a reduction of historical fire regimes) loblolly pine, Virginia pine, and various combinations of oaks and hardwoods, including chestnut oak, blackjack oak, white oak, southern red oak, scarlet oak, mockernut hickory, and sourwood.

3.3.2 Southern Mixed Hardwoods

Several different upland mixed hardwood forest associations have been identified on the Refuge. Many oaks and hickories in these forests benefit from occasional fire and, as with longleaf pine, will also be replaced by more fire-sensitive species over time.

The most common and prominent forest association on the Refuge is dominated by chestnut oak, hickory and black oak. This forest association is common throughout refuge uplands, constituting the prominent forest type along many slopes. A second more rare forest association is confined to the steep, rocky, north to east-facing slopes overlooking Caffee Creek and along an unnamed, west flowing tributary on the Refuge's northern boundary. Fire may enter this more mesic forest association, but probably burns at low intensity or becomes extinguished, minimizing any fire related effects. The canopy is characterized by varying degrees of codominance by white oak, beech, and tuliptree. The third more southern refuge forest association is restricted to relatively level areas along the west side of the Cahaba River and Caffee Creek, where alluvial deposition has influenced and defined the plant life. The prominence of upland laurel oak, water oak, and loblolly pine in the canopy distinguish this association from others on the Refuge.

3.3.3 Forest Plantations

Planted pine plantations have been established on upland areas throughout the refuge. Loblolly pine plantations were planted prior to refuge establishment by commercial timber companies. Longleaf pine plantations were planted in 2004-2005 in an effort to reestablish a presettlement forest cover. Both plantation types were established on clear-cuts and form even-aged stands of varying ages. Historically, most of these lands were likely covered by longleaf pine forest.

3.3.4 Bottomland and Floodplain Forests

Three bottomland forest associations occur along the river or tributary streams on the Refuge. They occupy only a small percentage of total refuge lands. The first forest association is dominated by beech and white oak. This association is confined to small stream floodplains that

empty into either side of the Cahaba River. The most accessible example occurs along Little Ugly Creek where it parallels River Trace Road, south of County Road 24. Larger, higher quality examples occupy more remote sections of the refuge. Elevated a few feet above the streambed, this community experiences sporadic flooding of a minimal duration.

The second forest association can be found on a poorly drained to moderately well-drained ridges and swales along the west side of the Cahaba River near the Refuge's southern boundary. While annual flooding typifies this community, the forest is a successional phase resulting from human or natural intervention and disturbance. Sweetgum and loblolly pine are the primary canopy species, with secondary species including water oak, red maple, sugarberry, and American elm.

The third forest association is confined to bottomlands along the Cahaba River, particularly along the western side of the river. The canopy is often characterized by sweetgum, tuliptree, and water oak, with loblolly pine and white oak of secondary importance. Sycamore occasionally serves as a canopy species closest to the river's edge.

3.3.5 Hydric Communities

Two regionally and locally rare hydric communities exist on the Refuge. The first community is found along the Cahaba River north of Caffee Creek. This community is maintained by the scouring action of the Cahaba River during high water episodes. This naturally occurring early successional community requires extreme environmental conditions to maintain a suitable substrate. Flash floods that actively scour the floodplain, keeping vegetation open, are necessary. This community is vegetated with grasses and forbs along with scattered low growing trees and shrubs.

The second hydric community is located within rocky shoals along the Cahaba River. The community is characterized by a prominence of Cahaba lily and water-willow. From a national perspective, this association is recognized as one of the most vulnerable and endangered ecological systems in North America. Never very common, rocky-shoal spiderlily is restricted to Fall Line shoals, extending from central Alabama, through Georgia, to the vicinity of Columbia, South Carolina. Approximately 200 acres of shoal's lilies are estimated to remain in the world (NatureServe 2006).

3.4 Wildlife Resources

The Refuge contains a rich diversity of wildlife species. Uplands consist of rolling hills and slopes, many of which have been planted in loblolly pine plantations or have been disturbed by past coal mining activities. The river and associated streams contain an exceptionally rich diversity of aquatic species.

3.4.1 Freshwater Mussels and Snails

With 118 snail species in the Mobile River basin, the Cahaba River is recognized as containing the most diverse snail population in the world. In addition, 42 mussel species historically existed in the Cahaba, which exceeds the number found in all of Europe. The Cahaba River is Alabama's longest free-flowing river, which is largely responsible for the basin's rich mollusk fauna. The prominence of shoals along the upper river reaches and lack of significant development along much of the river further enhance the river's species richness. The refuge is located within the most species rich section of the river (Paul Johnson, personal communications). At the same time, rampant development of Jefferson and Shelby Counties, and decades of coal mining have degraded river water quality and hydrologic flows that continue to place stress on present-day populations.

3.4.2 Fish

Alabama's rivers and streams are inhabited by one of the richest fish faunas in North America, numbering around 300 freshwater species (Mirarchi et al. 2004). Continuing development within the state, however, has heavily impacted many of these populations, particularly fish that depend on a free-flowing river system. As Alabama's longest free-flowing river, the Cahaba has escaped some of these impacts. Water quality degradation, sedimentation and hydrologic modification of stream flows, however, continue to place stress on fish populations. Ninety-two fish species are suspected to inhabit the Cahaba River as it flows through the Refuge.

3.4.3 Reptiles and Amphibians

Alabama reptiles and amphibians total 154 species, which include 30 frogs, 43 salamanders, 12 lizards, 40 snakes, 28 turtles, and the alligator (Mirarchi et al. 2004). The Ridge and Valley Physiographic Province is somewhat unique in that this region seems to support a higher percentage of Coastal Plain species than other regions north of the Fall Line (Mount 1975). Ninety-seven species of reptiles and amphibians are suspected to inhabit the Refuge.

3.4.4 Birds

Alabama provides critical nesting, wintering, and migratory habitats for a large number of birds. A total of 420 species have been documented in the state. Of this total, 178 are known to nest with 158 regularly nesting in the state. Additionally, 174 species regularly winter, and 80 species migrate through Alabama (Mirarchi 2004).

The Refuge is located along the north-south flowing Cahaba River, and provides inviting habitat for both resident and migrating species. The presence of both aquatic and upland habitats on the Refuge further increases the diversity of birds that can be expected on the Refuge.

Game birds inhabiting the Refuge and included under the *Preferred Alternative* include wild turkey and northern bobwhite.

Turkey populations, in particular, have increased in Alabama during recent years. Today, the statewide population is estimated to exceed 450,000 birds. Harvest numbers on the CRWMA from 1996 to 2006 ranged from 30 to 51 birds annually (McCutcheon 2006). During the 2005-2006 hunting season, 51 birds were harvested. Harvest numbers for the CRWMA were somewhat above the Statewide Management Area average of 40 birds/day. The success rate of 9.0 man-days/bird at Cahaba was much better than the state-wide average of 13.3 man-days/bird. Slightly more than four percent of Wildlife Management Area turkeys state-wide are harvested in the CRWMA.

Northern Bobwhite can be found on the Refuge, primarily in open disturbed areas and potentially around longleaf pine stands. Quail populations in the Southeast declined 65.8 percent from 1980 to 1999, while declines in breeding numbers averaged almost four percent per year from 1982 to 1999 (Dimmick et al 2003). In Alabama, quail numbers are believed to have declined by as much as 85 percent since 1980 (USDA, Forest Service 2004).

During the previous 2005-2006 season, 50 birds were harvested on the CRWMA with 125 man-days of effort (McCutcheon 2006). Harvest numbers for the CRWMA were well below the statewide Wildlife Management Area average of 117 birds/day. The success rate of 0.40 birds/day at Cahaba was also well below the statewide Wildlife Management Area average of 0.82 birds/day. State-wide, slightly more than one percent of Wildlife Management Area quail are harvested on the CRWMA.

3.4.5 Mammals

Alabama has viable breeding populations of 60 native and exotic mammal species (Mirarchi et al. 2006). Fifty-five mammal species potentially inhabit refuge communities.

Game species inhabiting the Refuge and included under the *Preferred Alternative* are white-tailed deer, gray squirrel, eastern fox squirrel, eastern cottontail, bobcat, coyote, raccoon, opossum and feral hog.

White-tailed Deer populations in Alabama reached 1.75 million animals in 2000 (Cook and Gray 2003). In fact, many areas in Alabama are overpopulated with deer and have been for many years. In 2001-2002 hunting season, over 213,000 deer hunters spent over 3,900,000 man-days in pursuit of deer. Those hunters harvested 410,000 deer. Harvest numbers on the CRWMA from 1996 to 2006 ranged from 17 to 175 deer annually (McCutcheon 2006). Harvest has continually improved since 1996. During the 2005-2006 hunting season, 175 deer were harvested on the CRWMA with a man-day success of 5.5 percent (McCutcheon 2006). Hunter success was equal to the statewide success rate of 5.5 percent.

The primary issue involving deer on the Refuge is related to overpopulation. With the removal of large predators from Alabama (wolves and mountain lions), hunting remains the only viable population control for this large animal. When deer numbers exceed the ability of habitat to provide the forage, low growing plants are depleted, and starvation and disease become the only

means of controlling population growth. This can be a long-term issue affecting the entire forest, removing new tree growth before the plants have an opportunity to mature and grow above the browse line.

Deer are opportunistic browsers, selecting the most palatable species in the forest. As populations increase, pressure is placed on more palatable species first, with less desirable species eventually also being chosen as browse availability worsens. The end result is a modification of forest structure with some species disappearing entirely from the landscape. Habitat modifications, such as the elimination of low shrubs and herbaceous plants, can actually eliminate nesting habitat for sensitive neotropical migratory birds that inhabit the forest interior (Cook and Gray 2003).

Increasing deer populations represent a serious threat to biological integrity on the Refuge. To maintain a healthy population after reducing the herd to carrying capacity, management studies have demonstrated that one-third of the population must be harvested annually (Cook and Gray 2003).

Gray Squirrel is the most common squirrel species in Alabama, and commonly observed throughout the Refuge. Historically, this squirrel was probably less common on the Refuge where open longleaf pine forests once covered most uplands. With fire suppression, hardwoods increased on the Refuge and the canopy closed, creating habitat preferred by the gray squirrel. In other areas, loblolly pine was planted in dense plantations and habitat for all squirrel species disappeared.

The estimated annual harvest on the CRWMA during 2005-2006 was 1,000 squirrels with 500 man-days of effort (McCutcheon 2006). The hunter success ratio (2.0/day) was well above the state-wide (1.46/day) average on Wildlife Management Areas. State-wide, slightly more than four percent of Wildlife Management Area squirrels are harvested on the CRWMA. The Management Area harvest of 1,000 squirrels was well above the state-wide Wildlife Management Area average of 693 squirrels.

There is no distinction in harvest information between eastern fox and gray squirrels, but the abundance of gray squirrels in the area would indicate this species was most commonly taken.

Eastern Fox Squirrel is a characteristic species of longleaf pine forests in the southeastern United States. They prefer and are adapted to the mature open longleaf pine forests that once covered much of the region. As these forests disappeared, fox squirrel populations also declined in the Southeast. Once the forest canopy closes, gray squirrels usually out-compete and replace fox squirrels. While considered a low conservation concern overall in Alabama (Mirarchi et al. 2004), the fox squirrel is uncommon and isolated to remnant stands of mature longleaf pine in northern Alabama.

The greatest threat to eastern fox squirrels in the Southeast is the loss of mature forest habitat, particularly the open longleaf pine ecosystem. In Alabama, the fox squirrel is considered vulnerable (S3) according to NatureServe (2007). Proposed management objectives to restore

mature longleaf pine habitat should enhance fox squirrel habitat and increase populations. Hunting of eastern fox squirrel on the refuge is not likely to adversely affect overall population abundance of this species.

Eastern Cottontail is common in deciduous forest, forest edges, grasslands, fencerows and urban areas throughout Alabama (Mirarchi 2004). Because many uplands on the Refuge are highly disturbed and in early states of plant succession, particularly on northern refuge areas, rabbit habitat is widely available.

During the 2005-2006 hunting season, 100 rabbits were harvested with 200 man-days of effort on the CRWMA (McCutcheon 2006). The hunter success ratio (0.5/day) was well below the state-wide Management Area average (1.21/day). State-wide, slightly less than one percent of Wildlife Management Area rabbits were harvested on the CRWMA. The Management Area harvest of 100 rabbits was well below the state-wide Wildlife Management Area average of 385 rabbits. Hunting eastern cottontail on the refuge is not likely to adversely affect overall population abundance of this species.

Bobcats are considered common in Alabama (Mirarchi 2004), but as large predators with extensive home ranges, their populations should be viewed at a broad landscape scale. In Florida, home range size for males averages 4900 acres and 2900 acres for females (Mallow 2003). It has been estimated that a viable population needs 200 individuals occupying 159,000 acres of forest land to avoid adverse effects associated with inbreeding. Bobcats can tolerate some habitat disturbance, but usually are absent from areas of intensive farming or dense human populations. A key management approach for maintaining bobcat populations is to maintain large blocks of relatively wild habitat with sufficient corridors to allow individuals to move back and forth among local populations. Coyote predation of bobcat is a threat in many areas of the country. Typically high or expanding coyote populations result in low numbers of bobcat, even in suitable bobcat habitat (NatureServe 2007).

There is no information on bobcat population levels in Bibb County. The county however is largely forested and in "wildland". Suitable habitat and area to support viable populations appears to be available in this region of the State. Trapping harvest information from the CRWMA however did not harvest a single bobcat during 180 trap nights (McCutcheon 2006). Hunting bobcat on the refuge is not likely to adversely affect overall population abundance of this species.

Coyotes are common in all habitats throughout Alabama (Mirarchi 2004), and commonly observed on the Refuge. They however are not native to Alabama, and have expanded into our region, replacing mountain lion and wolf as the largest predator in the State. Coyotes represent highly intelligent and effective predators that prey on many native species that evolved in a landscape without coyotes. Trapping harvest information for the CRWMA during 2005-2006 showed that the Management Area harvested more coyotes (22) than any other Management Area in the State (McCutcheon 2006). Trapping is not allowed on the Refuge. Hunting coyote on the refuge is not likely to adversely affect overall population abundance of this species.

Raccoon are common in all habitats throughout Alabama (Mirarchi 2004). Raccoons or their tracks are commonly observed on the Refuge. Raccoon were commonly trapped on the CRWMA during 2005-2006 (McCutcheon 2006). State-wide, over half of all raccoons trapped on Wildlife Management Areas were harvested on the CRWMA. Trapping is not allowed on the Refuge. Hunting raccoon on the refuge is not likely to adversely affect overall population abundance of this species.

Opossum are common in all habitats throughout Alabama (Mirarchi 2004), and their tracks are frequently observed on the Refuge. Opossum were commonly trapped on the CRWMA during 2005-2006 (McCutcheon 2006). State-wide, thirty percent of all opossums trapped on Wildlife Management Areas were harvested on the CRWMA. Trapping is not allowed on the Refuge. Hunting opossum on the refuge is not likely to adversely affect overall population abundance of this species.

Feral Hogs have spread or been released throughout Alabama (Nelson and Causey 2001) and are known to occur in Bibb County (USFWS 2007). While they have not been documented on the Refuge, they are found on adjacent lands, and represent a potential threat to natural communities should they move onto the Refuge.

Hogs have been described as the greatest vertebrate modifier of natural communities in our region (Nelson and Causey 2001). Soil disturbance from rooting hogs in both uplands and wetlands will eliminate long-lived perennials adapted to our natural communities. Tree seedlings, including those of longleaf pine, are highly preferred by rooting hogs, and their loss will eventually modify forest structure. Early successional and exotic plants will subsequently invade native communities, degrading the quality and biological integrity of all refuge natural systems. Hogs are omnivores and opportunistic feeders, and will compete with native wildlife for food. They are serious nest predators, particularly devastating to forest interior ground and shrub nesting birds. They also prey on native mammals, birds, reptiles and amphibians. They carry a wide range of parasites and diseases that can be transmitted to native wildlife.

3.4.6 Endangered Species

Ten federally listed species have been found on or are highly suspected to inhabit the Refuge. These species are designated as endangered, threatened or as candidates for federal listing under the Endangered Species Act. Most of the federally listed species are aquatic organisms found in the Cahaba River (3 snails, 2 mussels and 3 fish). Only three species (gray bat, bald eagle and Georgia aster) occur in upland areas that will be open to hunting.

Gray Bat. With few exceptions, the gray bat is restricted to caves for roosting. Available roosting opportunities on the refuge are rare to nonexistent, but the bat likely forages along the river and larger refuge tributary streams. It often travels up to 30 miles from roosting caves to

forage during the night. The bat hibernates during colder months and would not forage along the river during the hunting season.

Bald Eagle. Bald eagles are found along major lake and river systems throughout Alabama. Due to devastating effects of DDT, the breeding population disappeared from the State in the 1960s. However, with the banning of DDT and intensive restoration efforts in following years, the eagle has made a spectacular recovery with 47 statewide confirmed nests in 2003 (Alabama Nongame Program 2006). Although fish comprise the major part of their diet, small animals such as rats, rabbits, opossums, raccoon, snakes and turtles are also eaten. They usually nest in large trees near water. While confirmed nesting has not been documented along the Cahaba River (Hudson, personal communications), eagles have recently been observed by refuge personnel and others (AOS 2006) during the spring. It is highly probable that eagles in the future will nest along the river on the Refuge.

Georgia Aster. Georgia aster is a showy flowering plant restricted to the Piedmont and Ridge and Valley physiographic provinces from Alabama to North Carolina. In Alabama, the plant is represented by 34 occurrences in seven counties, primarily in the central portion of state. Within the Refuge, the aster is widespread along road openings and along the margins of recently planted longleaf pine restoration sites. Openings in the forest appear needed to maintain this species. With implementation of a prescribed burning program and longleaf pine restoration, this plant should benefit and increase in the future.

The following table includes a listing of all 10 refuge species federally designated as endangered, threatened or as candidates for listing.

Scientific Name	Common Name	Status*
<i>Leptoxis ampla</i>	Round Rocksnail	E
<i>Lepyrium showalteri</i>	Flat Pebblesnail	E
<i>Lioplax cyclostomaformis</i>	Cylindrical lioplax	E
<i>Lampsilis altilis</i>	Fine-lined Pocketbook	T
<i>Ptychobranthus greeni</i>	Triangular Kidneyshell	E
<i>Notropis cahabae</i>	Cahaba Shiner	E
<i>Percina aurolineata</i>	Goldline Darter	T
<i>Aster georgianus</i>	Georgia Aster	C

Scientific Name	Common Name	Status*
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T
<i>Myotis grisecens</i>	Gray Bat	E

* E – Endangered, T – Threatened, C – Candidate

3.4.7 Wetlands

Most refuge wetlands are located within the floodplain of the Cahaba River or along tributary streams that drain into the river. A description of refuge wetland communities was provided in Section 3.3. Generally, three different floodplain forest associations occur on refuge uplands; (1) beech-white oak, (2) sweetgum-loblolly and (3) sweetgum-tuliptree-water oak. Closer to the river, wetter (hydric) environments contain two additional associations; (1) river scour community and (2) Cahaba Lily-water willow wetland. Floodplain forest provides critical habitat and important forage for many game species.

3.4.8 Aquatic and Fishery Resources

The Cahaba River provides important habitat for a diverse assemblage of plants and animals and is sought out by canoeists, fisherman and others for its scenic quality. The Cahaba River supplies a large portion of Birmingham's drinking water supply, and also receives domestic and industrial wastewaters.

The Refuge contains significant aquatic resources, including three miles of the Cahaba River, as well as several tributary streams that include the Little Cahaba River, Caffee Creek, Pratt Creek, and Little Ugly Creek. The Refuge lies near the midpoint of the Cahaba, approximately 95 river miles from both its headwaters and from its confluence with the Alabama River near Selma. The watershed area upstream of the Refuge is approximately 650 sq miles. Within the Refuge, the Cahaba River ranges from 125 to 250 feet wide, with water depth from a few inches in the shoals to nearly 10 feet in pools. Several small islands are scattered along the course, but the dominate channel features are the flat bedrock shoals.

The biological richness and significance of the Cahaba River cannot be overstated. Historically, 131 species of fish, 43 species of freshwater mussels, 20 snail species, 24 crayfish species and 146 caddisfly species have been recorded. Aquatic biota are not only diverse, but nationally and globally significant.

3.5 Socioeconomic and Land Use Conditions

3.5.1 Socioeconomic

Bibb County (626 sq. miles) is located in central Alabama, with the County Seat in Centerville. Cities and towns in the county include Brent, Centerville, Woodstock, Vance and West Blocton. The Refuge is located a few miles southeast of West Blocton.

According to the 2000 census, there are 20,826 people, 7,421 households and 5,580 families in the county. The racial makeup of the county was 76.66 percent white, 22.2 percent African American, 0.24 percent Native American, 0.08 percent Asian, 0.01 percent Pacific Islander and 0.29 percent other races. The median income for a household was \$32,420, and the median income for a family was \$37,230. The per capita income for the county was \$14,105.

3.5.2 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.

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.

4.0 ENVIRONMENTAL CONSEQUENCES

This chapter describes the foreseeable environmental consequences of implementing the *Preferred Alternative*. 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.

4.2 Summary of Effects

4.2.1 Refuge Physical Environment

While the *Preferred Alternative* will increase visitor usage during fall and winter months, only County Road 24 and River Road are open to vehicle travel. Remaining unimproved refuge roads and trails are gated and only open to foot travel. Sensitive physical features will therefore only be exposed to foot traffic.

The refuge expects impacts to air and water quality to be minimal and only due to refuge visitor automobile emissions. The effect of these refuge-related activities on overall air and water quality in the region are anticipated to be relatively negligible.

4.2.2 Cultural Resources

Hunting and visitor access does not pose a threat or potential harm to cultural resource sites on the Refuge under the *Preferred Alternative*. Refuge cultural resource sites are unmarked and will not be impacted by foot traffic.

4.2.3 Public Safety

Strip mining high-walls are located on the former Piper Mine complex. These steep cliffs present a safety concern and are delineated on refuge maps. High-walls extend in a NE/SW direction two miles across the northern portion of the Refuge. Hunting under all alternatives except the *No Action Alternative* could occur in the vicinity of high-walls.

4.2.4 Vegetation

Hunting is not anticipated to adversely impact refuge natural communities under the *Preferred Alternative*. While the number of visitors on the Refuge is expected to increase under the *Preferred Alternative*, the movement and presence of hunters is not considered a significant modifying influence.

Some wildlife species, however, can alter or modify existing refuge vegetation through foraging or other habitat modifications. Because of overpopulation or site specific activities, these effects can adversely impact specific community types or refuge landscape in general. In some situations, these impacts have the potential to lower refuge carrying capacity, or in other situations, to totally eliminate sensitive habitat for rare or endangered species. Hunting under the *Preferred Alternative* could reduce or eliminate some of these potential adverse effects. The following species were evaluated in Section 3.0, and identified as possible sources for adversely impacting refuge vegetation and habitats:

- White-tailed Deer – Overpopulation resulting in refuge-wide modification of natural communities, particularly harmful to nesting forest interior birds and rare plants.
- Feral Hogs – Potential threat from rooting affecting all refuge habitats, including federally designated species, wetlands and longleaf pine communities.

4.2.5 Game Species

An evaluation of game species included under the *Preferred Alternative* indicates hunting will not have a significant adverse impact on refuge game populations. Local observations and regional trends however suggest three species in the *Preferred Alternative* occur at potentially low populations or in isolated population pockets, and should be monitored during future hunting

programs. Detailed evaluations on the potential implications of hunting these species are provided in Section 3.0:

- Northern Bobwhite
- Eastern Fox Squirrel
- Bobcat

All three species are rarely encountered on the refuge and hunting take is expected to be incidental to other hunting efforts. Currently, few people hunt for these species on the Refuge and refuge populations are probably not impacted through hunting. Low bobwhite numbers reflect poor habitat and not hunting pressure. Slightly more than one percent of all Alabama Wildlife Management Area quail were harvested on the Cahaba Wildlife Management Area (Section 3.4.4). Quail have the ability to rapidly reproduce and are expected to increase in numbers with refuge longleaf pine restoration programs. The eastern fox squirrel and bobcat occur at such low numbers on the Refuge that hunters seldom harvest any of these species. In most situations, this is because of poor or limited habitat for these species on the Refuge. Because bobcats require large home ranges, extensive acreage for viable populations, and are impacted by the local abundance of coyotes, there are potential factors that may be affecting refuge bobcat populations. Insignificantly low numbers of these species harvested on the refuge would have no negative cumulative impacts to their rangewide populations.

4.2.6 Non-game Species

Non-game wildlife would benefit from the selective hunting of those species that have potential to alter or modify natural communities (Section 3.0). Refuge-wide, the most significant alteration of habitat is and will occur from deer overpopulation. Feral hogs, should they invade the Refuge, also represent a significant adverse potential impact to non-game wildlife.

Beaver are occasional and intermittent residents on the Refuge. While beaver dams can create a diverse aquatic and wetland community, they often displace unique and rare wetland community types critical to refuge biological integrity and enhancing regional biodiversity.

4.2.7 Endangered Species

Eleven federally endangered, threatened or candidate species are found on the Refuge (Section 3.4). Only three species (gray bat-endangered, bald eagle-threatened and Georgia aster-candidate) may be found on refuge uplands opened to hunting under the *Preferred Alternative*. While the *Preferred Alternative* may increase recreational use on the refuge, none of the three species would be impacted through additional human activities. The gray bat is in hibernation during hunting season in caves distant to the Refuge. The bald eagle has not been observed nesting on the refuge, but only as a casual visitor. The Georgia Aster is dormant above ground during winter months.

4.2.8 Facilities (Roads, Parking Areas and Trails)

The preferred alternative is not anticipated to impact or degrade existing facilities (e.g. parking areas, roads, and trails) on the Refuge. Hunter vehicle traffic will be restricted to existing paved and improved roads used by all refuge visitors. Environmentally sensitive trails and off-road pathways are gated and restricted to foot traffic, which is anticipated to result in no significant environmental impacts refuge-wide.

4.2.9 Wildlife Dependant Recreation

The *No Action Alternative* fails to provide the wildlife dependant recreational opportunity of hunting, which is compatible with the purposes for which the refuge was established and the mission of the National Wildlife Refuge System. Local residents interested in hunting would need to travel to other public lands, possibly further distances from their home residence.

The *Preferred Alternative* of hunting may result in some conflict between consumptive (hunters) and non-consumptive (birdwatchers, hikers, etc) users. Because hunting generally occurs during the winter or colder months, non-consumptive refuge use is less than other times of the year. The proximity of the Refuge to urban and residential areas however is an enticement to many non-consumptive users, particularly during warmer periods of the winter.

Potential conflicts between hunters and non-consumptive users will be managed by restricting hunting to off-road areas, and away from established interpretive trails and viewing areas. These areas will be designated as closed to hunting on all hunt permits.

4.3 Cumulative Impacts Analysis

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

Resident Game. All game species described for the *Preferred Alternative* are resident species with impacts affecting only the local population. The cumulative effect to these species at a broad scale however is not significant. Current local and regional trends for these species are provided in Section 3.0. An overview of local or refuge level effects of hunting can be found in Section 4.2.

Eleven resident game species were evaluated under the *Preferred Alternative*. Species included in the analysis included turkey, northern bobwhite, white-tailed deer, gray squirrel, eastern fox squirrel, eastern cottontail, bobcat, coyote, raccoon, opossum and feral hog. Three of the species (northern bobwhite, eastern fox squirrel and bobcat) were identified at low population levels or restricted to isolated population pockets on the Refuge.

While refuge environmental conditions are not necessarily comparable to all regions of the Southeast, they do represent an overall trend that is impacting these three species region-wide. This trend is more closely related to regional habitat degradation and alteration than the individual take of species. The regional loss of longleaf pine woodlands and fire exclusion are critical elements in the decline of northern bobwhite and eastern fox squirrel populations. Bobcats have large home ranges, require acreage for genetically viable populations, and are potentially preyed upon by a locally abundant coyote population. Rarity and lack of habitat result in few hunters targeting and harvesting any of these species on the Refuge. Hunting therefore is not considered to have significant cumulative impacts to any game species listed under the *Preferred Alternative*.

Non-Game Wildlife. Possible cumulative effects to refuge non-game wildlife primarily involve neotropical and other migrant birds. These birds migrate through the area, nest or winter in refuge forests. The Refuge may provide habitat for a critical nesting, resting or wintering stage in the species life. Some species of bats, butterflies and moths are also migratory. Cumulative effects to these species at the “flyway” level should be negligible.

Disturbance to non-game migratory birds could have regional, local, and flyway effects. The cumulative effects of disturbance to these birds under the *Preferred Alternative* are expected to be negligible. Hunting season would not coincide with the nesting season. Disturbance to the daily wintering activities, such as feeding and resting, of birds might occur, but disturbance by hunters would be commensurate with that caused by non-consumptive users.

Endangered Species. Three federally listed species (gray bat-endangered, bald eagle-threatened and Georgia aster-candidate) are found on the refuge. All three are not expected to receive either local (Section 4.2.7) or cumulative impacts from hunting. Both the eagle and bat are not residents of the Refuge, but only forage along the river. Georgia Aster is found at 34 sites across seven Alabama counties, with the Refuge containing four of these populations.

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

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.

Wildlife-dependent refuge use would be concentrated along roads, interpretive trails and viewing areas. This, combined with the addition of increased hunting opportunity, could have a negative effect on nesting bird populations. Because hunting seasons (except for the limited turkey hunt) are during the winter and not during peak periods of other wildlife dependent recreation, hunting is not believed to affect these other uses or programs.

High deer numbers are recognized as a problem altering forest structure, selectively reducing certain plants and reducing reforestation seedling survival. Hunting under the *Preferred Alternative* 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 *No Action Alternative* fails to provide controls for deer overpopulation and the maintenance of forest communities

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, and trails. Maintenance or improvement of existing facilities (i.e. parking areas, roads and trails) 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, as needed, and all disturbed sites will be restored to their natural condition. During times when roads are impassible due to weather events or other natural causes, those roads, parking lots, and trails impacted by the event will be closed to vehicular use.

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. 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 does not expect adverse impacts from the *Preferred Alternative* on the refuge physical environment (e.g. 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. Control of deer numbers through hunting is expected to benefit habitat quality and over all biological integrity on the Refuge. The refuge would also restrict all hunter vehicle access to paved and improved gravel roads to minimize habitat degradation and sedimentation from roadways.

The Refuge expects impacts to air and water quality to be minimal and only due to refuge visitors' vehicle emissions. 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. 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 adverse impacts are anticipated under the *Preferred Alternative*. Refuge hunting 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.

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

Cumulative impacts 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 individual minor actions, they may, viewed as a whole, become substantial over time. The proposed hunt plan has been designed to be sustainable through time under 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 Cahaba River 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 *Preferred Alternative* represents additional public hunting opportunities in the region. This effort is fully compatible with the purpose for which the refuge was established and the mission of the National Wildlife Refuge System. The Refuge does not foresee any changes to the *Preferred Alternative* 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 Cahaba River NWR, conduct hunting programs within the framework of State and Federal regulations. The Refuge is at least as restrictive as the State of Alabama. 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 ADWFF. Additionally, refuges coordinate with ADWFF annually to maintain regulations and programs that are consistent with the State management program.

5.0 Consultation and Coordination with Others

The ADWFF concurs and fully supports the regulated consumptive public use of the natural resources associated with the Refuge (Refer to Letters of Concurrence). The 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.

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APPENDICES

Appendix A - Comments on Draft Environmental Assessment

The Draft 2007 Sport Hunt Plan for Cahaba River National Wildlife Refuge was opened for public comment from March 7, 2007 to April 5, 2007. Four comments specific to this Hunting Plan and EA were received during the public review period. All were in support of continuing public hunting opportunities on the refuge.

General issues cited by reviewers for support of the hunting program included; lack of public lands available for hunting in the region, heritage and education of young hunters, and the control of deer overpopulation. Specific concerns included; assuring that squirrel hunting and habitat remained available to introduce youth to hunting, and continuing support for allowing dogs in upland game hunting.

We received a letter from the Humane Society of the United States that contained comments related to hunting on the National Wildlife Refuge System as a whole and containing elements related to litigation filed in 2003 by the Fund for Animals against the Service. These comments were not specific to this draft EA and are noted but not responded to here.

FINDING OF NO SIGNIFICANT IMPACT

2007 Sport Hunting Plan for Cahaba River National Wildlife Refuge

The U.S. Fish and Wildlife Service proposes to continue hunting programs in cooperation with the Alabama Division of Wildlife and Freshwater Fisheries on Cahaba River NWR. Species hunted would include turkey, northern bobwhite, white-tailed deer, gray squirrel, eastern fox squirrel, eastern cottontail, bobcat, coyote, raccoon, opossum and feral hog. 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 no action and lottery drawing.

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

No action Alternative - Under this alternative, the refuge remains closed to public hunting and refuge activities are limited to natural resource management, protection and other public uses.

Lottery Drawing Alternative – Under this alternative, the refuge would coordinate with the State of Alabama for a lottery to facilitate hunting within refuge boundaries.

Deer Hunting Only - This alternative would limit hunting to white-tailed deer. No limits would be placed on the number of hunters. No other game species would be hunted.

Proposed Action – Under this alternative, the Service will allow sport hunting to occur in conjunction with Alabama Division of Wildlife and Freshwater Fisheries (ADWFF) hunting seasons. No lottery drawing will occur to limit the number of hunters. Hunting would be subject to general refuge system regulations, refuge-specific regulations as outlined in the Sport Hunting Plan and state regulations.

The preferred alternative was selected over the other alternatives because:

1. The preferred alternative best allows the refuge to manage wildlife populations, allow the public to harvest a renewable resource, promote a wildlife-oriented recreational opportunity, increase awareness of Mountain Longleaf 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 Cahaba River 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 counties.
5. The Service will be perceived as a good steward of the land by continuing traditional uses of land in Alabama 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. Refuge hunting is cooperatively administered with the Alabama Division of Wildlife and Freshwater Fisheries to maximize personnel availability and resources.
2. Signage and gates limit vehicle accessibility to paved and improved gravel roads.
3. Portions of the refuge within Anniston city limits (firearms discharge restrictions) are limited to bow hunting.
4. The refuge law enforcement program and regulated state wildlife management area seasons will ensure hunt regulation compliance and protection of 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 been used for recreational hunting with no detrimental long-term effect on wetlands and floodplains.

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, Daphne, AL
- Alabama Division of Wildlife and Freshwater Fisheries

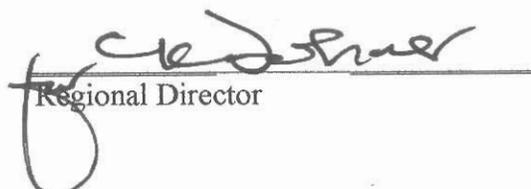
Copies of the Environmental Assessment are available by writing:

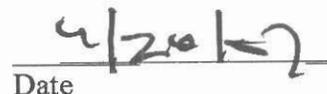
Cahaba river National Wildlife Refuge
P.O. Box 5087
Fort McClellan, AL 36205

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):

1. Both beneficial and adverse effects have been considered and this action will not have a significant effect on the human environment (EA, Section 4.2 and 4.3).
2. The actions will not have a significant effect on public safety (EA, Section 4.2.3).
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, Sections 3.5.2, 4.2.2 and 4.3.2).
4. The effects on the quality of the human environment are not likely to be highly controversial (EA, Sections 4.2.9, 4.3.2 and 4.3.3).
5. The actions do not involve highly uncertain, unique, or unknown environmental risks to the human environment (EA, Section 4.0).
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, Section 2.0).
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, Section 4.3).
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, Sections 3.5.2, 4.2.2 and 4.3.2).
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, Section 4.0).

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


Regional Director


Date