

**CAHABA RIVER  
NATIONAL WILDLIFE REFUGE  
SPORT HUNTING PACKAGE**

**EAS**

**SPORT HUNTING PLAN**

**ENVIRONMENTAL ASSESSMENT**

**COMPATIBILITY DETERMINATION**

**FONSI**

**SEC 7**

**LETTER OF CONCURRENCE**

**PRESS RELEASE**

**OUTREACH PLAN**

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.

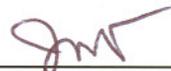
\_\_\_\_\_ is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.

\_\_\_\_\_ 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

**SPORT HUNTING PLAN**

UNITED STATES FISH AND WILDLIFE SERVICE

CAHABA RIVER NATIONAL WILDLIFE REFUGE

APRIL 2007

Recommended by STM M Date: 4/19/2007  
Refuge Manager

Reviewed by Richard P. Ingram Date: 4/19/07  
Refuge Supervisor

Concurrence by Bud Brown Date: 4/19/2007  
Regional Chief, NWRS

Approved: C. J. [Signature] Date: 4/26/07  
Regional Director

# CAHABA RIVER NATIONAL WILDLIFE REFUGE

## SPORT HUNTING PLAN

### **NATIONAL WILDLIFE REFUGE SYSTEM MISSION:**

*“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.”*

### **CAHABA RIVER NATIONAL WILDLIFE REFUGE MISSION:**

*“To preserve, conserve, and restore biodiversity and biological integrity of the Cahaba River ecosystem while providing for compatible public uses.”*

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## **INTRODUCTION**

### **Background**

The Cahaba River National Wildlife Refuge is located near the town of West Blocton in Bibb County, Alabama (Fig. 1). The Refuge was authorized on October 19, 2000, when the Cahaba River National Wildlife Refuge Establishment Act (P.L. 106-331) was signed into law. The legislation directed the Secretary of Interior to acquire up to 3,500 acres of lands and waters within the boundaries of the Refuge.

On September 25, 2002 the Service established the Refuge and acquired the initial lands in partnership with the Nature Conservancy. By September 2004, 3,081 acres had been acquired. In February 2004, the U.S. Fish and Wildlife 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 an additional 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 (Fig. 2).

## **CONFORMANCE WITH STATUTORY AUTHORITY**

### **Scope and Rationale**

The Refuge has developed this Hunting Plan to guide hunting on the Refuge in a manner that allows us to fulfill the purpose for which the Refuge was established as well as to provide a public benefit. This Plan has been released for public comment to solicit public input into any final decisions on hunting at the Refuge. The final Plan, which will incorporate any public comments received, will be the instrument that guides future decisions on hunting at the Refuge.

### **Legal Mandates**

In response to a 2003 lawsuit filed by the Fund for Animals, the U.S. Fish and Wildlife Service will amend or rewrite refuge hunting plans and the 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 amends the hunting plan at Cahaba River National Wildlife Refuge in Alabama.

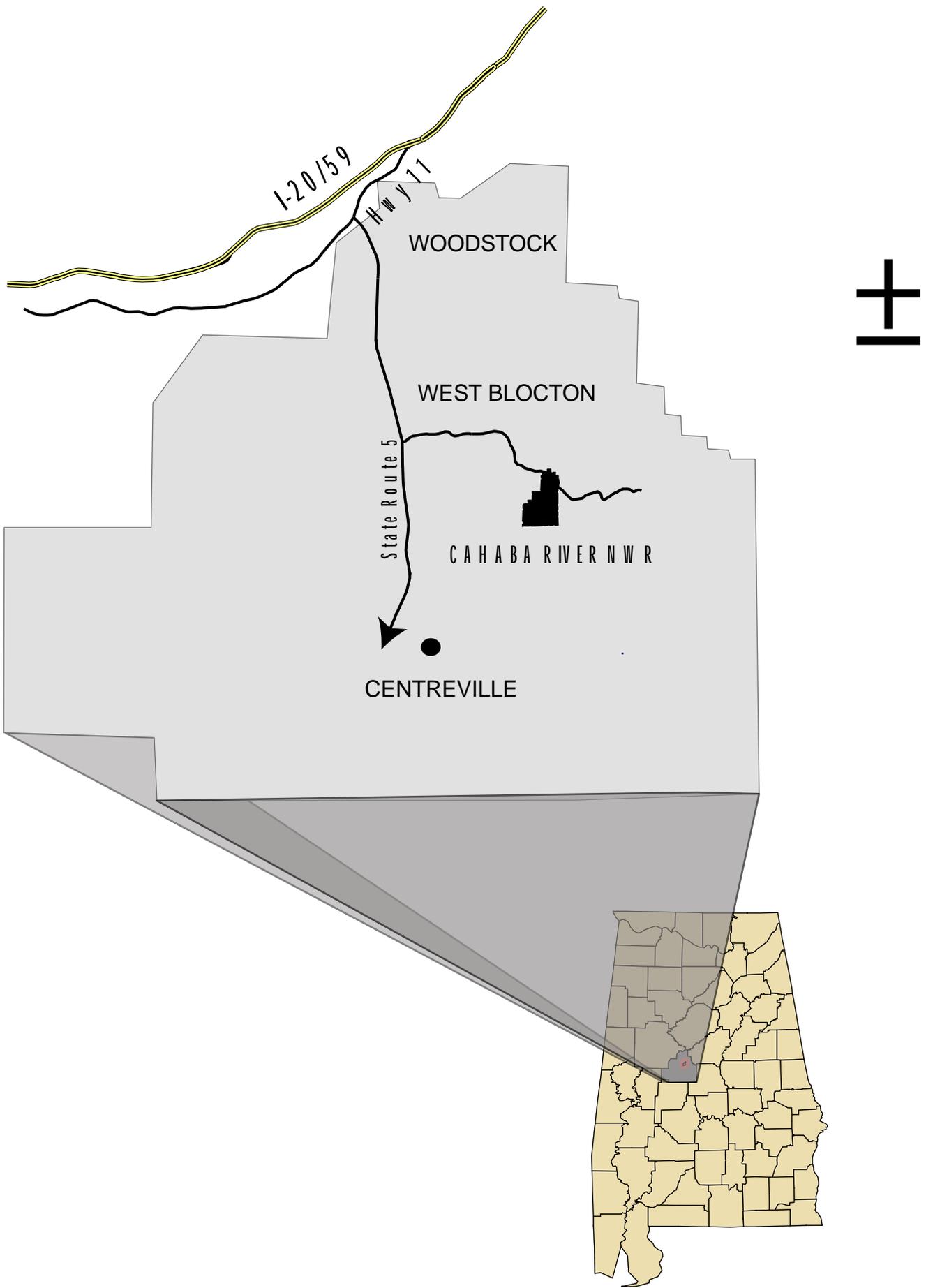


FIG. 1 CAHABA RIVER NATIONAL WILDLIFE REFUGE LOCATION

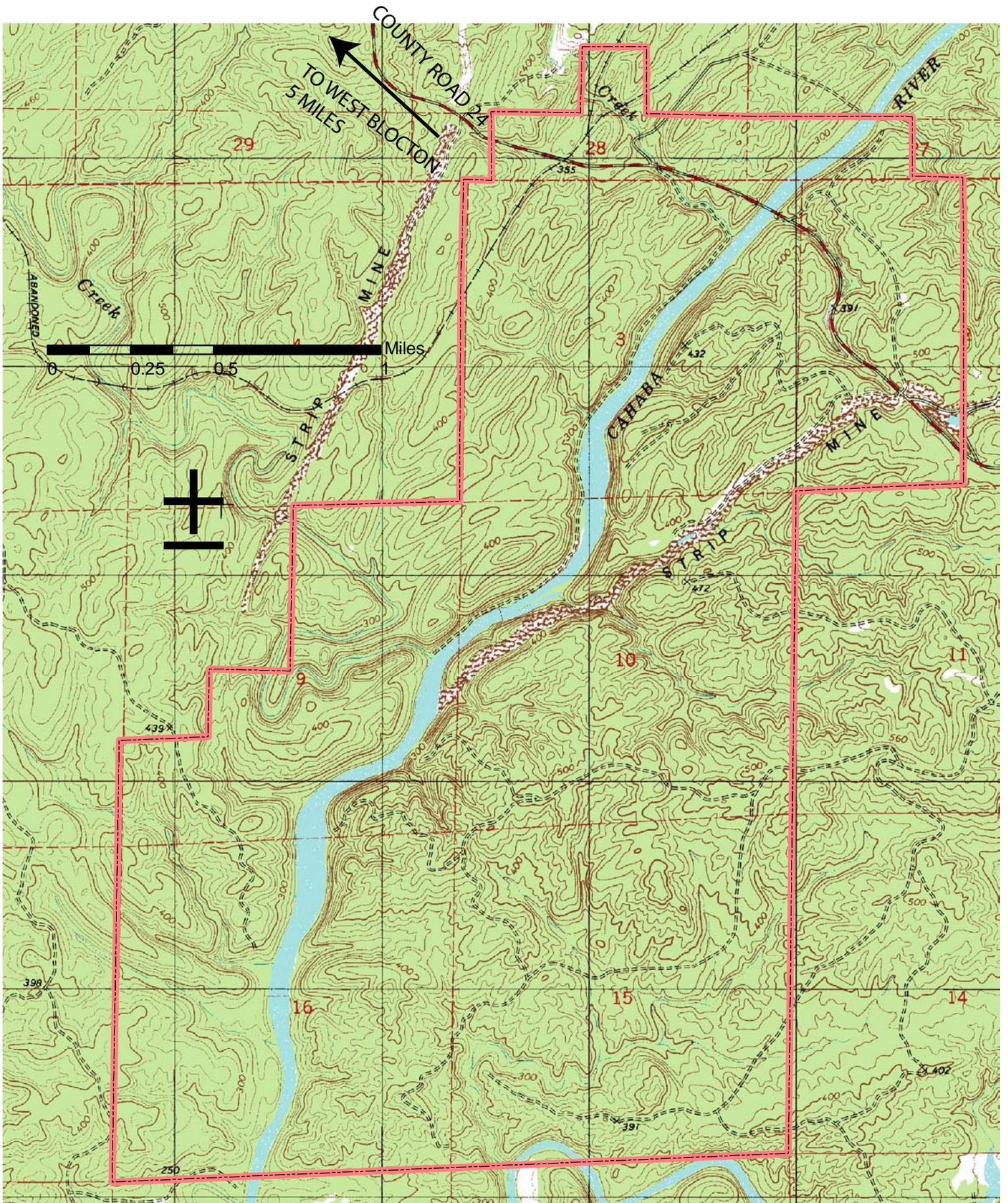


Fig. 2 Cahaba River National Wildlife Refuge Boundary

Guidance for authorizing public uses on National Wildlife Refuges is provided in the National Wildlife Refuge System Improvement Act of 1997. The Act states, “compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System . . . through which the American public can develop an appreciation for fish and wildlife.” The Act recognizes that wildlife-dependent recreational uses involving hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation, when determined to be compatible, are legitimate and appropriate public uses of the Refuge System that will receive priority consideration in refuge planning and management. Other uses not listed as priority public uses may be allowed if they are determined to be appropriate and compatible with the purposes for which the refuge was established. According to the Act, when a wildlife-dependent recreational use is determined to be a compatible use and is not inconsistent with public safety, that activity should be facilitated. The term “compatible use” is defined as a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge. The Fish and Wildlife Service’s Final Compatibility Policy Pursuant to the Act delegates the responsibility of determining compatibility to the Refuge Manager with concurrence by the Regional Office Supervisor.

The Cahaba River National Wildlife Refuge Establishment Act (P.L. 106-331) directed the Secretary of Interior to acquire up to 3,500 acres of lands and waters within the boundaries of the Refuge. The purpose of the Refuge as designated in the establishment legislation is to:

- (1) conserve, enhance, and restore the native aquatic and terrestrial community characteristics of the Cahaba River (including associated fish, wildlife, and plant species);
- (2) conserve, enhance, and restore habitat to maintain and assist in the recovery of animals and plants that are listed under the Endangered Species Act of 1973 (16 U.S.C. 1331 et seq.);
- (3) provide opportunities for compatible fish- and wildlife-oriented recreation, ensure that hunting, fishing, wildlife observation and photography, and environmental education and interpretation are the priority general public uses of the Refuge, in accordance with section 4(a)(3); and (4) of the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668ee(a)(3), (4)); and
- (4) encourage the use of volunteers and to facilitate partnerships among the United States Fish and Wildlife Service, local communities, conservation organizations, and other non-Federal entities to promote public awareness of the resources of Cahaba River National Wildlife Refuge and the National Wildlife Refuge System and public participation in the conservation of those resources.

## **Relationship to Other Plans and Documents**

Previously, the refuge developed a Public Use Plan that outlined the Refuge's proposed public use program. The Public Use Plan provides more guidance as to the timing and location of other public use activities on the Refuge.

The Refuge completed compatibility determinations on uses proposed within this document. All uses proposed are deemed to be compatible with the mission of Cahaba River NWR. These uses, which include big game and upland game hunting, will be presented in this Draft Hunting Plan to solicit public comments. A list and detailed description of the hunting opportunities proposed for the Refuge are contained in this document.

The Hunting Plan and the previously completed Public Use Plan are considered interim planning documents. All refuges are required to develop a Comprehensive Conservation Plan that will describe the desired future conditions of a refuge and provide long-range guidance and management direction to achieve refuge purposes; help fulfill the National Wildlife Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System and help meet other mandates. The Public Use Plans that had been previously developed are considered "step-down" management plans of this future Comprehensive Conservation Plan. These plans will be incorporated and amended as necessary when the Refuge develops its Comprehensive Conservation Plan as required within 15 years of establishment.

The Refuge developed this plan in coordination with the Alabama Department of Conservation and Natural Resources (ADCNR). Their ideas and suggestions were incorporated into this document prior to this public review. Hunting at Cahaba River NWR will be coordinated at least annually with the ADCNR.

## **STATEMENT OF REFUGE GOALS AND OBJECTIVES**

The authorizing legislation for the Refuge outlined four purposes for establishing the Refuge from which we have obtained these four goals.

1. Conserve, enhance, and restore the native aquatic and terrestrial community characteristics of the Cahaba River
2. Conserve, enhance, and restore habitat to maintain and assist in the recovery of animals and plants that are listed as threatened or endangered
3. Facilitate hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation as priority public uses of the Refuge when compatible
4. Encourage the use of volunteers and facilitate partnerships among the Service, local communities, conservation organizations, and other non-federal entities when promoting awareness of the Refuge's resources and those of the National Wildlife Refuge System

During development of our CCP, we will seek to further define these goals and develop new goals to better guide our activities on the Refuge.

The Refuge is in the process of developing objectives in support of these goals. Objectives that may affect public use include:

1. Establish partnerships with the Alabama Aquatic Biodiversity Center in conserving and restoring sensitive aquatic species.
2. Ensure water quality of refuge tributary streams through partnerships with adjacent land owners.
3. Manage River Road as a refuge access road, while minimizing erosion/sedimentation and the contribution of contaminants into the river.
4. Restore the bottomland and upland forest communities along the Refuge's River Road
5. Reclaim and restore portions of the Refuge impacted by previous coal mining activities
6. Educate the public about littering and protection of their natural heritage
7. Manage and, where appropriate, restore longleaf pine habitats on the Refuge
8. Utilize prescribed fire as a management tool
9. Develop a system of trails and interpretive signs that will allow the public to understand the importance of protecting the Cahaba River Watershed
10. Increase public access to areas of the Refuge east of the Cahaba River

## **ASSESSMENT**

### **Compatibility with Refuge Objectives**

Hunting is one of the six wildlife-oriented recreational uses prioritized by the Refuge Improvement Act of 1997. The Secretary of Interior may permit hunting on a refuge if he/she determines that such use is compatible with the refuge purpose for which it was established. The hunting program would not materially interfere with or detract from the fulfillment of the purposes of the Refuge or mission of the National Wildlife Refuge System (603 FW).

Populations of game animals are not currently monitored within the Refuge but populations appear to be healthy based upon data gathered on adjacent state lands. Suitable habitat exists on the Refuge to support populations of all species proposed to be hunted. Population of these species should not be negatively affected by hunting. In addition to providing recreational opportunities, hunting will provide useful population data from retrieved harvest information.

## **Biological Soundness**

### Big Game Hunting (White-tailed deer, Feral Hog, Wild Turkey, Bobcat, and Coyote)

#### White-tailed Deer

Deer hunts have proven to be not only compatible with refuge objectives but also beneficial in meeting them. Deer harvest is essential to maintain the herd at or below habitat carrying capacity. When deer are overpopulated, they overbrowse their habitat, which can completely change the plant composition of a forest. Overpopulation can also lead to outbreaks of devastating diseases such as epizootic hemorrhagic disease and bluetongue. Overpopulation also leads to starvation, increased car-deer collisions and poor overall herd health. The lack of natural predators within areas, such as this refuge where they normally would occur, has made hunting of white-tailed deer a necessity in order to protect habitats.

Hunting of white-tailed deer will be limited to archery only. The relative small size of the refuge and high passive recreation warrant the restriction.

#### Feral Hogs

Feral hogs are an extremely invasive non-native species. They can harbor several infectious diseases, some of which can be fatal to wildlife. By rooting and wallowing, feral hogs destroy wildlife habitat. Damage includes erosion along waterways and wetlands and the loss of native plants. The habitat disturbance is very detrimental to amphibians and reptiles. Additionally, feral hogs compete directly for food with deer, bears, turkeys, squirrels and many other birds and mammals. They are predators of small mammals and deer fawns as well as ground-nesting birds such as turkeys. Feral hogs are not believed to currently reside on the refuge, but are found north and south of the refuge. In order to insure that this species does not become a future problem, the refuge intends to allow them to be hunted. 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.

#### Wild Turkey

Turkey hunting is permitted on the refuge during the spring in accordance with state regulations. Populations in the state are on the rise. Data indicate that the local turkey population has withstood hunting on the state wildlife management area for a number of years without a negative cumulative effect on turkeys. Hunting of wild turkeys on the refuge is not believed to adversely impact the population.

## Bobcats

Bobcats in the southeast United States and throughout their range are considered to be stable or increasing in population and distribution. Their diet consists of Eastern cottontail, rodents, birds, bats, and occasionally deer. The status of the population on the refuge is unknown. Hunting of this species is not believed to adversely effect regional populations.

## Coyotes

Coyotes' prey includes: small mammals, songbirds, turkey and Northern bobwhite and their nests and any other animal they opportunistically encounter. When coyote numbers are high, local wildlife populations can be negatively affected. The status of the population found on the refuge is unknown. Coyotes may help to control deer populations within the refuge. Hunting of this species is not believed to adversely effect the local population.

## Small Game (Squirrel, Eastern Cottontail, Raccoon, Opossum, and Northern Bobwhite)

### Northern Bobwhite

Northern bobwhite hunting on the refuge is limited because of a lack of required nesting and foraging habitat for this species. This species is only occasionally detected on the refuge. In the southeast, the Northern bobwhite population decline has been attributed to habitat loss. Population data on the Northern bobwhite are unknown for the refuge. Hunting of Northern bobwhite on the refuge is not likely to have an affect on the Northern bobwhite population numbers.

### Raccoon and Opossum

Overpopulation of raccoon and opossum populations may lead to increased depredation of turkey, Northern bobwhite and songbird nests. 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. Population abundance of these species is not known for the refuge but should not be negatively affected by hunting.

### Squirrel and Eastern Cottontail

Although no studies have been conducted on small game within the refuge, studies have been conducted within and outside of Alabama to determine the effects of hunting on the population dynamics of small game. Results have consistently shown that small game, such as Eastern cottontail and squirrels, are not affected by hunting, but rather are limited by food resources.

Gray squirrels are prolific breeders and their populations have not been threatened by hunting in Alabama. Although population densities are not known for gray squirrels they are visible throughout the refuge and are unlikely to be negatively affected by hunting. The fox squirrels are not known to inhabit the refuge and their decline in the southeast is attributed to habitat loss rather than hunting.

The population levels of Eastern cottontail on the refuge are unknown. Anecdotal evidence indicates that the species is common but not abundant on the refuge.

The refuge is following the state list of species that are hunted on the adjacent Wildlife Management Area; therefore these species have been included. The relative abundance of these species is not likely to be negatively affected by hunting since it is unlikely that these species will be targeted by hunters.

### **3. Economic Feasibility**

Annual hunt administration costs including salary, equipment, and sign maintenance, fuel, etc. total \$29,000. Less than 1.0 full time staff equivalent, including law enforcement, is expended in conducting hunt-related activities. Funds are available to meet the conditions set forth in the Refuge Recreation Act. It is anticipated that funding would continue to be sufficient to continue the hunting program in the future.

### **4. Relationship with other Refuge Programs**

None of the proposed hunts offer major conflicts with other hunts or with non-consumptive users. Past incidents have occurred on the refuge between passive wildlife viewers and hunters over the perceived disruption of these passive activities during a hunt. These incidents have not resulted in a major conflict.

The spring turkey hunt does not coincide with any other hunting season but may overlap with planned dormant season prescribed burning on the refuge. Periodic closure of portions of the refuge to all compatible public uses, including hunting, during days of prescribed burning will occur.

### **5. Recreational Opportunity**

The refuge is relatively new and therefore much of the area open to the public may be under-utilized, with the exception of River Road, as compared to the nearby state wildlife management area and national forest. Several factors may contribute to this situation, including access limitations and lack of improvements.

## **DESCRIPTION OF HUNTING PROGRAM**

Most Refuge management activities (habitat restoration, interpretation, hunting, monitoring, and research) will provide an opportunity for public participation and to

teach/encourage environmental stewardship. Programs and activities will be developed to create in our visitors:

- Awareness and ecological understanding of the Refuge and adjacent landscape.
- Knowledge of how humans affect the natural system.
- Understanding of the value of mountain longleaf pine habitat for wildlife.
- Recognition of wildlife values in general.

Hunting on Refuge lands will be allowed for big game and upland game species. Hunting on the Refuge will occur through a cooperative partnership with the ADCNR with dates set annually through meetings with the ADCNR. Hunters will be required to follow all State and Federal regulations and all Refuge-specific regulations.

### **Hunting as a Compatible Public Use**

The term “compatible use” is defined as a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Refuge Manager, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the Refuge. 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.”

The Service has responsibility for the protection and management of fish, wildlife, and the habitats upon which they depend. The Refuge is a special place where the Service will maintain and enhance the Cahaba River and adjacent upland habitats for wildlife. In fulfilling our resource responsibilities, however, we also will provide the public with opportunities to learn about wildlife and enjoy opportunities for wildlife-dependent recreation, so long as they do not materially interfere with our habitat and wildlife conservation activities, nor pose a hazard to public safety.

### **Hunting as a Priority Public Use**

The National Wildlife Refuge Improvement Act of 1997 (PL 105-57) states that hunting is one of six wildlife-dependent public uses that, when determined to be compatible, is to be a priority public use of the National Wildlife Refuge System. Hunting provides the public with wildlife-dependent recreation opportunities and has been determined to be compatible with the purposes for which this Refuge was established.

### **Hunting Regulations**

#### **Regulations Pertaining to all National Wildlife Refuge System Lands**

There are regulations regarding hunting on all National Wildlife Refuges which can be found in 50 CFR 32.2. The following list contains an overview of these regulations but is

not a complete list or exact text of each regulation. Each hunter should familiarize himself/herself with the regulations as they are published in the Code of Federal Regulations.

1. Each person will secure and possess the required State licenses.
2. Each person will comply with the applicable provisions of the laws and regulations of the State where they are hunting.
3. Each person will comply with the terms and conditions of access on a refuge.
4. Each person must comply with any refuge specific regulations.
5. It is prohibited to use any drug on any arrow.
6. Baiting or hunting over a baited site is prohibited.
7. The use of nails, wire, screws, or bolts to attach a stand to a tree or hunting from a tree in which a metal object has been driven to support a hunter is prohibited.
8. It is unlawful to use or possess alcoholic beverages while hunting.

### **Cahaba River National Wildlife Refuge Specific Regulations**

Hunting opportunities determined to be compatible with the goals of the Refuge are listed below along with Refuge specific regulations that will further ensure the safety of visitors and habitats of the Refuge. These Refuge specific regulations once published may be found in 50 CFR 32.20 and will include:

#### **Migratory Game Bird Hunting**

A. Migratory Game Bird Hunting. [Reserved]

#### **Upland Game Hunting**

B. Upland Game Hunting. We allow hunting of Northern bobwhite, squirrel, Eastern cottontail, opossum, raccoon, coyote and bobcat on designated areas of the Refuge in accordance with State regulations subject to the following conditions:

1. You must possess and carry a signed hunt permit when hunting.
2. We prohibit hunting within 100 yards of River Road.
3. We prohibit ATVs, mules, and horses on the Refuge.
4. We allow the use of dogs to hunt upland game, but the dogs must be under the immediate control of the handler at all times and not allowed to run free.
5. We allow shotguns with #4 shot or smaller, rifles firing .22 caliber rimfire ammunition, or archery equipment.
6. All youth hunters age 15 and younger must remain within sight and normal voice contact of an adult age 21 or older, possessing a valid hunting license. Youth hunters must have passed a State-approved hunter education course. One adult may supervise no more than 2 youths.
7. All firearms must be unloaded and dismantled or encased before being placed in a vehicle.

8. We prohibit marking trees and the use of flagging tape, reflective tacks and other similar marking devices.

### **Big Game Hunting**

C. Big Game Hunting. We allow the hunting of white-tailed deer, feral hog, and wild turkey on designated areas of the Refuge in accordance with State regulations and subject to the following conditions:

1. You must possess and carry a signed hunt permit when hunting.
2. We only allow the use archery equipment during white-tailed deer season.
3. We prohibit damaging trees or hunting from a tree that contains an inserted metal object. Hunters must remove stands from trees after each day's hunt.
4. We require tree stand users to use a safety belt or harness.
5. We prohibit the use dogs to hunt or pursue big game.
6. Conditions B.2, B.3 and B8 apply.
7. All youth hunters age 15 and younger must remain within sight and normal voice contact of an adult age 21 or older, possessing a valid hunting license. Youth hunters must have passed a State-approved hunter education course. One adult may supervise no more than 1 youth.
8. We prohibit participation in organized drives.

### **MEASURES TAKEN TO AVOID CONFLICTS WITH OTHER MANAGEMENT ACTIVITIES**

In order to avoid conflicts with other management and public use activities, the Refuge has proposed a series of Refuge-specific regulations. Access to public use areas will be from River Road which is accessible by two-wheel drive vehicle during most of the year. During periods of heavy rainfall upstream, River Road may be closed due to flooding.

Hunting permits will contain maps of hunting area locations and rules and regulations. Each hunter must sign the hunting permit prior to hunting to show that they have read and understand the rules and regulations.

The boundary of all lands owned by the Service are marked with Refuge boundary signs (Fig. 3). Refuge boundary signs mark the extent of Refuge owned lands where entry is granted provided visitors adhere to Refuge rules and regulations. All areas permanently off-limits to visitors will be clearly marked with "Area Closed" signs. Areas that are off-limits to hunting and not otherwise clearly defined by distance from an identifiable boundary will be marked with a "No Hunting Zone" sign. A safety buffer of 100 yards will be established for visitor and public safety on lands the Service owns adjacent to River Road. This safety buffer will not be marked.



**Fig. 3 Refuge Signs**

## **CONDUCT OF THE HUNT**

### **Hunting Orientation and Safety**

To ensure the safety of Refuge users along the Cahaba River, “no hunting” safety zones are established within those areas of the Refuge that are located within 100 yards of the River Road. Visitor orientation is provided directly on the Refuge through the use of signs, brochures, flyers, maps, and trail guides to direct hunters. Outlets off the Refuge that would be a source of information would be the Cahaba River Wildlife Management Area and may also include local media, sporting goods stores, chamber of commerce offices, tourism offices, and the internet.

### **Entry Access/Procedures**

Public entry into the Refuge is initially limited to River Road (Fig. 2). As lands are added to the Refuge, additional access points will be provided.

### **Law Enforcement**

Enforcement of Refuge trespass and other public use violations normally associated with management of a National Wildlife Refuge are the responsibility of commissioned Refuge Law Enforcement Officers and cooperatively by the Alabama Department of Conservation and Natural Resources and Bibb County Sheriff’s Department. General trespass, poaching, and other violations are cooperatively enforced by these agencies. Procedures for obtaining law enforcement assistance are based on legal jurisdiction where the incident occurs. The Service has met with local law enforcement agencies to develop coordinated law enforcement strategies.

### **Community Support**

The success of the Refuge will not only be measured by the ecological restoration and enhancement of the Cahaba River and surrounding lands, but also by our effectiveness in

working with other agencies and individuals to preserve and enhance the biodiversity in Alabama and public use on the Refuge. The local community must view the Refuge as a positive economic benefit to the community and as a good neighbor.

Many refuges across the country have the privilege of working cooperatively with a non-profit community support group, which can support the refuge through volunteer hours, outreach, advocacy, and funding. In 2006, Friends of the Cahaba River National Wildlife Refuge, a non-profit organization created to support the refuge was formed by citizens from the surrounding community. The Service welcomes the opportunity to continue to work with partners and other groups. Whether or not partnerships are formalized, the Service and its partners will continue to work under the principles of trust, respect, and open communications.

Specific locations of facilities, except in a few instances, are not yet known. As funding becomes available, facilities will be developed to aid in the management of the Refuge, including the support of all forms of appropriate and compatible public use such as hunting.

# **ENVIRONMENTAL ASSESSMENT**

## **2007 Sport Hunt Plan**

**on**

## **Cahaba River National Wildlife Refuge**

**Bibb County, Alabama**

**For Further Information Contact:**

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**Prepared by:**

**U.S. Department Of Interior**

**Anniston, Alabama**

**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

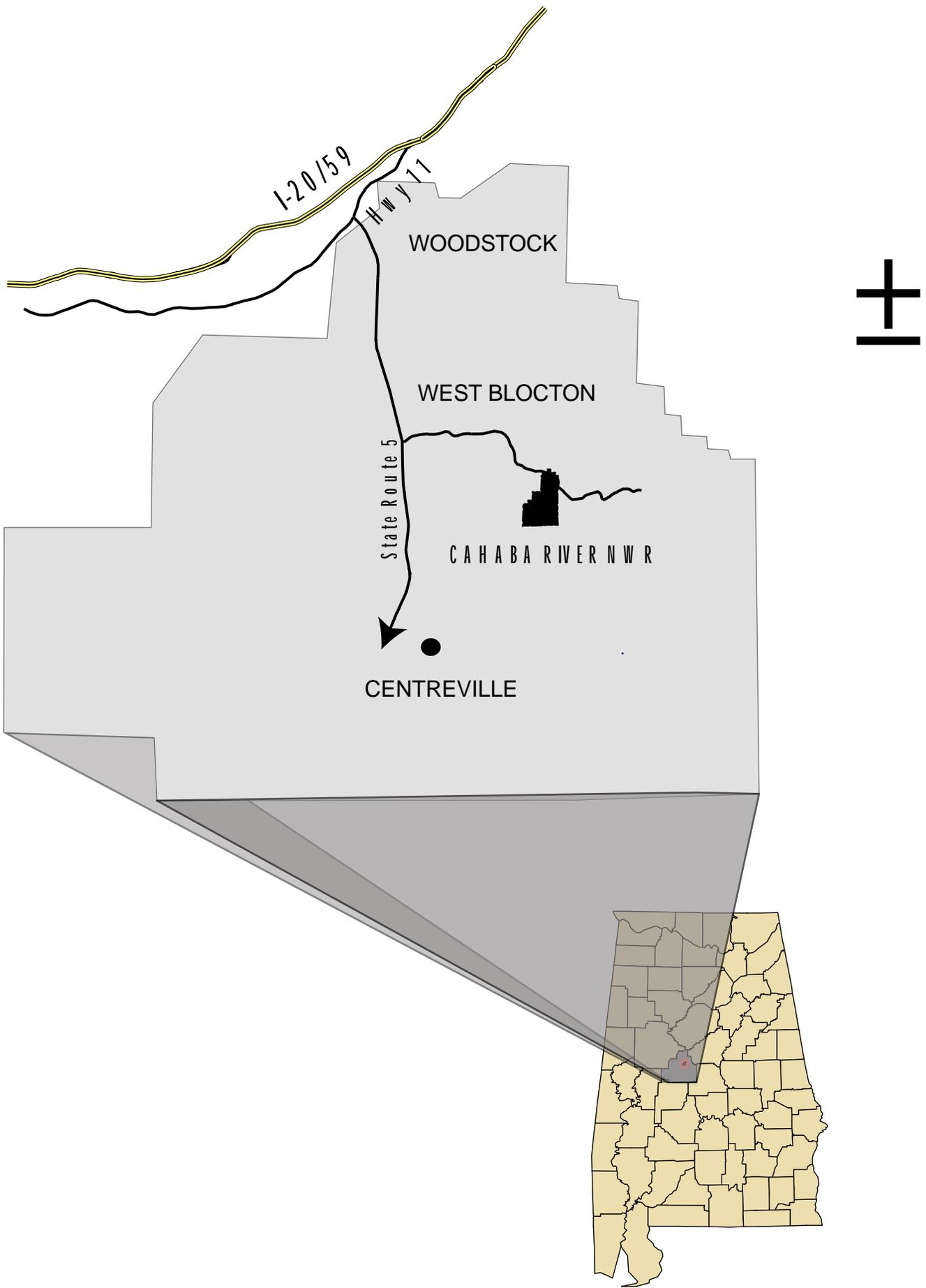


FIG. 1 CAHABA RIVER NATIONAL WILDLIFE REFUGE LOCATION

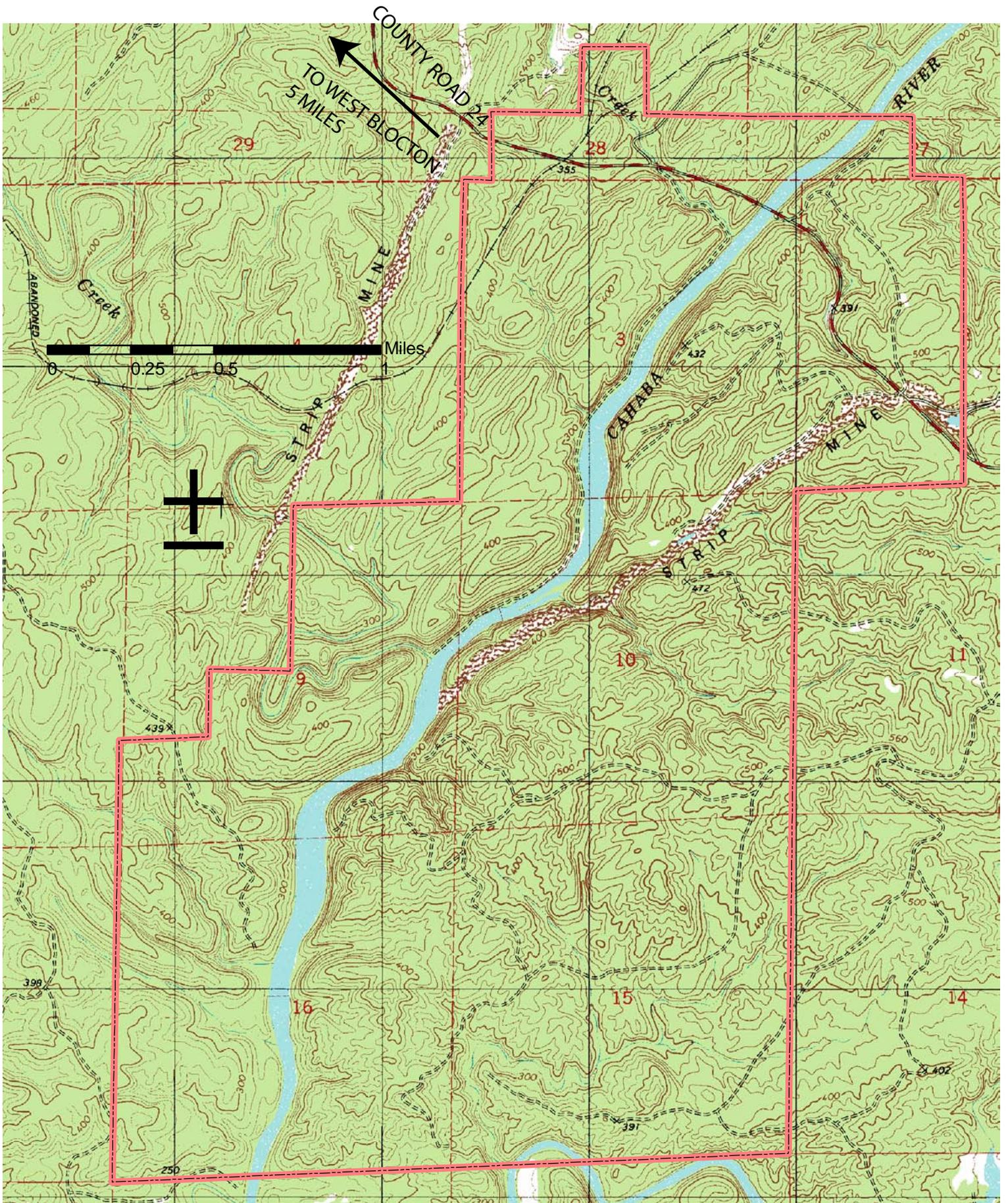


Fig. 2 Cahaba River National Wildlife Refuge Boundary

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	<b>T</b>
<i>Myotis grisecens</i>	Gray Bat	<b>E</b>

\* 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

These three species all possess potential population level and viability issues. The eastern fox squirrel potentially inhabits longleaf pine stands on the southwestern portion of the Refuge. The northern bobwhite occurs throughout Alabama at low population levels due to habitat degradation and fire exclusion. Because bobcats require large home ranges, extensive acreage for viable populations, and the local abundance of coyotes, there are potential factors that may be affecting refuge bobcat 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.

## 6.0 LITERATURE CITED

- Alabama Department of Conservation and Natural Resources (ADCNR). 2005. *Conserving Alabama's Wildlife: A Comprehensive Strategy*. ADCNR, Division of Wildlife and Freshwater Fisheries. Montgomery, AL.
- Alabama Natural Heritage Program (ANHP). 1994. *Natural Heritage Inventory of Fort McClellan, Main Post: Federal Endangered, Threatened, Candidate Species and State-Listed Species*. Submitted to the U.S. Army Corps of Engineers, Mobile District and Fort McClellan by Alabama Natural Heritage Program, Department of Conservation and Natural Resources, Montgomery, AL. 76 pp.
- Cook, C. and B. Gray. 2003. *Biology and Management of White-tailed Deer in Alabama*. Alabama Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries.
- McAuley, D.G, J.R. Longcore, D.A. Clugston, R. B. Allen, A. Weik, S. Staats, G.F. Sepik, Wl Halteman. 2005. Effects of hunting on survival of American woodcock in the northeast. *Journal of Wildlife Management* 69(4): 1565–1577.
- McCutcheon, K. 2006. *State of Alabama Wildlife Management Area Harvest Report*. Alabama Division of Wildlife and Freshwater Fisheries, Wildlife Restoration Program, Grant Number W-35, Study 6.
- Mirarchi, R.E. 2004. *Alabama Wildlife: A Checklist of Vertebrates and Selected Invertebrates (Volume 1)*. The University of Alabama Press. Tuscaloosa, Alabama.
- Mirarchi, R.E, J.T. Garner, M.F. Mettee, and P.E. O'Neil. 2004. *Alabama Wildlife: Imperiled aquatic Mollusks and Fishes (Volume 2)*. The University of Alabama Press. Tuscaloosa, Alabama.
- Mirarchi, R.E., M.A. Bailey, T.M. Haggerty and T.L. Best. 2004. *Alabama Wildlife: Imperiled Amphibians, Reptiles, Birds and Mammals (Volume 3)*. The University of Alabama Press. Tuscaloosa, Alabama.
- Mirarchi, R.E., M.A. Bailey, J.T. Garner, T.M. Haggerty, T.L. Best, M.F. Mettee and P.E. O'Neil. 2004. *Alabama Wildlife: Conservation and Management Recommendations for Imperiled Wildlife (Volume 4)*. The University of Alabama Press. Tuscaloosa, Alabama.
- Nelson, D.K. and M.K. Causey. 2001. *Feral Hogs in Alabama*. Alabama Treasured Forests, Spring 2001. p 20-21.

South Carolina Department of Natural Resources. 2007. Southern Fox Squirrel.  
<http://www.dnr.sc.gov/cwcs/species.html>

U.S. Fish and Wildlife Service (USFWS 2007). Draft Cahaba River National Wildlife Refuge Habitat Management Plan. USFWS, Mountain Longleaf NWR, Anniston, AL.

# **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.

## Compatibility Determination

**Use:** BIG GAME AND UPLAND GAME HUNTING

**Refuge Name:** Cahaba River National Wildlife Refuge

**County:** Bibb, Alabama

### Establishing and Acquisition Authorities:

The Cahaba River National Wildlife Refuge Establishment Act, P.L. No. 106-331

Fish and Wildlife Act 1956

### Refuge Purposes:

Establishment purpose: "In administering the Refuge, the Secretary shall— (1) conserve, enhance, and restore the native aquatic and terrestrial community characteristics of the Cahaba River (including associated fish, wildlife, and plant species); (2) conserve, enhance, and restore habitat to maintain and assist in the recovery of animals and plants that are listed under the Endangered Species Act of 1973 (16 U.S.C. 1331 et seq.); (3) in providing opportunities for compatible fish- and wildlife- oriented recreation, ensure that hunting, fishing, wildlife observation and photography, and environmental education and interpretation are the priority general public uses of the Refuge, in accordance with section 4(a)(3) and (4) of the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668ee(a)(3), (4)); and (4) encourage the use of volunteers and to facilitate partnerships among the United States Fish and Wildlife Service, local communities, conservation organizations, and other non-Federal entities to promote public awareness of the resources of the Cahaba River National Wildlife Refuge and the National Wildlife Refuge System and public participation in the conservation of those resources." V114 STAT. 1304-1305, dated OCT. 19, 2000.

Additional purposes: "... for the development, advancement, management, conservation, and protection of fish and wildlife resources ..." 16 U.S.C. § 742f(a)(4) "... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ..." 16 U.S.C. § 742f(b)(1) (Fish and Wildlife Act of 1956)

### National Wildlife Refuge System Mission:

"The mission of the 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.”

### **Description of Use:**

#### What is the use? Is the use a priority public use?

Cahaba River National Wildlife Refuge was established on September 25, 2002. Hunting occurred on this private property prior to refuge establishment via hunting leases and other private agreements. Hunting has not been authorized to occur on the Refuge since establishment.

Hunting is 1 of the 6 legislated wildlife-dependent, priority public uses of the National Wildlife Refuge System. Hunting would occur within designated hunting areas on the Refuge during Refuge hunting seasons that are within Alabama Department of Conservation and Natural Resources established hunting seasons. Meetings would be held annually with Alabama Department of Conservation and Natural Resources staff to set these dates. Hunting would be subject to Federal, State and Refuge-specific regulations.

Since Cahaba River NWR is a new refuge, the exact number of users is unknown. Based on hunting that occurs on the adjacent Cahaba River Wildlife Management Area, we would anticipate up to 75 people and 40 vehicles to utilize the public hunting area each day of the weekend during the peak of seasons for white-tailed deer and wild turkey. We expect approximately 25 people and 15 vehicles on a weekday during the peak of the white-tailed deer and wild turkey season. We anticipate up to 500 additional user-days per year for all other species hunted.

#### Where would the use be conducted?

Hunting could occur throughout the refuge area acquired to date. As additional areas are acquired they will be evaluated to determine their suitability for this activity.

Access to many areas is limited due to ongoing acquisition. Currently, only one Refuge road connects directly to a public road. All other areas of the Refuge are accessed via gated private roads. Due to ongoing problems with dumping, littering, and graffiti in the area it is unlikely that these gated private roads will be opened for public access. The current lack of access would necessitate hiking to many hunting areas on the Refuge. As we complete Refuge acquisition, additional access could be provided.

When would the use be conducted?

Hunting would occur during designated Refuge hunting seasons that are within Alabama Department of Conservation and Natural Resources established hunting seasons. Meetings would be held annually with Alabama Department of Conservation and Natural Resources staff to set these dates.

How would the use be conducted?

Hunting would be subject to Federal, State and Refuge-specific regulations and occur within designated hunting areas on the Refuge. Camping and use of ATV's would not be allowed. Tree stands or blinds would be removed daily by the hunter.

Why is this use being proposed?

Hunting is proposed to offer the public recreation opportunities that are identified as the priority wildlife dependent public uses of the National Wildlife Refuge System.

**Availability of Resources:**

Resources involved in the administration and management of the use:

Approximately \$9,000 of staff time and \$20,000 of other operations and maintenance funding will be needed to administer this use.

Cahaba River NWR currently is unstaffed. The Refuge has no law enforcement or administrative staff on-site and will rely on Wheeler NWR's law enforcement and administrative staffs to meet these obligations. Cahaba River NWR currently has no maintenance staff but will use outside contracts and Wheeler NWR maintenance staff to meet the increase in maintenance needs. Cahaba River NWR is currently complexed with Wheeler NWR to meet essential needs.

Special equipment, facilities, or improvements necessary to support the use:

None

Maintenance costs:

Staff Time

Hunt Coordination Meetings and Data Analysis - \$2,000  
Monitoring of Hunting Activities - \$3,000  
Trash Pick-up - \$500  
Staff Time for Maintenance Activities Described Below - \$3,500

Maintenance Costs

Road Repair/Grading - \$5,000  
Gravel - \$10,000  
Signs - \$1,000  
Trash Removal - \$1,000  
Mowing - \$3,000

Monitoring costs:

The Refuge would utilize a self-reporting system to monitor use and harvests. Monitoring costs would be minimized for the Refuge under this scenario and are expected to be \$1,000.00 annually.

Offsetting revenues:

None

What efforts have been made to secure adequate resources to support this priority public use?

The Refuge is currently unstaffed and unfunded. Funding for specific needs and projects are currently being sought through the NWRS Refuge Operations and Needs System (RONS) and Maintenance Management System (MMS) programs. In FY 2004, funding for the Central Alabama National Wildlife Refuge Complex Project Leader position was funded through the Cahaba River NWR RONS project. This position is located at Mountain Longleaf National Wildlife Refuge in Anniston, Alabama.

Some funding has been provided by the Bibb County Commission in support of the Refuge, and these funds are being used to solicit matching grants as an interim funding measure to support public use projects. A federal matching grant was obtained by the Refuge in 2004 to facilitate improvements to the Cahaba River access point on the River Road using Bibb County Commission funds as a match.

Additional funding to support habitat restoration and studies has been pledged by The Nature Conservancy of Alabama and these funds are being used to solicit matching grants to fund restoration activities. In 2004, funds were obtained using TNC matching funds that will allow restoration of approximately 900 acres of longleaf pine on previously clearcut sites.

### **Anticipated Impacts of the Use:**

#### Short-term impacts:

Anticipated impacts from this use are all minor and include damage to vegetation, littering, increased refuge maintenance response to activities, potential conflicts with other visitors, and disturbance to wildlife.

#### Long-term impacts:

No long-term impacts to wildlife or habitats are anticipated with the use as proposed.

#### Cumulative:

No cumulative impacts are anticipated.

### **Public Review and Comment:**

The period of public review and comment began 5/3/2004 and ended 6/2/2004.

#### The following methods were used to solicit public review and comment:

Newspaper announcement

Public meeting was held at the West Blocton High School on March 18, 2004 during the scoping period for this document.

Media used to solicit public review and comment included Centreville Press, Birmingham News, Tuscaloosa News.

#### Why was this level of public review and comment selected?

A 30 day review was selected to allow a greater opportunity for public review than is required. The expanded review period was selected primarily because the Refuge is new to the community and we wanted the public to have additional time to become familiar with the National Wildlife Refuge System mission and regulations.

Summarize comments received and any actions taken or not taken because of comments received.

No comments were received during the comment period regarding Hunting.

Three written comments were received on this use following the public meeting held in West Blocton on March 18, 2004. The commenters requested that we coordinate our hunting efforts with the adjacent Cahaba River Wildlife Management Area.

One additional written comment was received in February during our scoping period for this document from a State partner requesting that we coordinate our hunting efforts with the adjacent Cahaba River WMA.

Our response was:

We plan to coordinate the Refuge hunting program with the adjacent Cahaba Wildlife Management Area. We will draft our Hunting Plan in cooperation with the Division of Wildlife and Freshwater Fisheries.

No changes were made to this compatibility determination as a result of this comment.

**NEPA Compliance:**

What type of NEPA compliance has been used?

Environmental Assessment and Finding of No Significant Impact

What are the title and dates of the documents?

Environmental Assessment Public Use Plan Cahaba River National Wildlife Refuge,  
October 2004

Cahaba River National Wildlife Refuge Public Use Plan Intra-Service Section 7  
Biological Evaluation, October 2004

Environmental Action Statement Finding of No Significant Impact, November 2004

**Determination:**

Hunting (big game)	Use is compatible with the following stipulations.
Hunting (upland game)	Use is compatible with the following stipulations.

**Stipulations Necessary to Ensure Compatibility:**

Periodic closures of portions of the Refuge may be implemented to conduct habitat management activities, environmental remediation, or to protect public safety. Activity may occur during Refuge hours only. Overnight camping and ATV's will not be allowed.

Deer hunting will be limited to archery-only to limit the number of hunters utilizing the area. Hunting will be limited to those species authorized to be hunted on the Refuge as listed in the Federal Register.

**Justification:**

Allowing hunting on the Refuge would be consistent with established Refuge goals.

Hunting is 1 of the 6 wildlife-dependent public uses that are to be supported within units of the National Wildlife Refuge System when compatible.

This use is not expected to conflict with any proposed habitat management or reclamation projects on the Refuge provided the Refuge utilizes closures as necessary to protect public safety and to allow habitat management actions such as prescribed burning on the refuge.

**Signature:**

**Refuge Manager:**

Stl M 11/18/04  
(Signature and Date)

**Review:**

**Regional Compatibility Coordinator:**

Rf 24 Nov 04  
(Signature and Date)

**Review:**

**Refuge Supervisor:**

Richard P Ingram 11/24/04  
(Signature and Date)

**Concurrence:**

**Regional Chief:**

Bud O 11/24/04  
(Signature and Date)

**Mandatory 10- or 15-Year Re-Evaluation Date:** November 2019

Facility: Cahaba River National Wildlife Refuge

Title: Cahaba River National Wildlife Refuge Sport Hunting Plan

### **FINDING OF NO SIGNIFICANT IMPACT**

**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.

**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 has 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:**

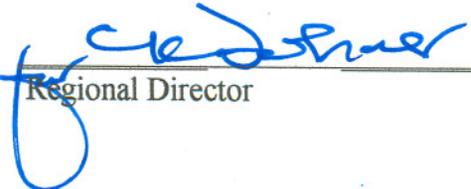
Cahaba river National Wildlife Refuge  
P.O. Box 5087  
Fort McClellan, AL 36205

**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)**

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.
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

Final



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
1208-B Main Street  
Daphne, Alabama 36526

IN REPLY REFER TO:

2007-I-0420

March 21, 2007

## Memorandum

To: Bill Garland, Biologist, Cahaba River National Wildlife Refuge, Fish and Wildlife Service, Fort McClellan, Alabama

From: Elaine Snyder-Conn, Acting Field Supervisor, Ecological Services, Fish and Wildlife Service, Daphne, Alabama *E. Snyder-Conn*

Subject: Intra-Service Section 7 Consultation for CRNWR Sport Hunting Plan in Bibb County

Thank you for your memorandum of February 15, 2007, requesting comments on Cahaba River National Wildlife Refuge's proposed Sport Hunting Plan in Bibb County, Alabama. We have reviewed the information and are providing the following comments in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. et seq.) and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

A detailed review of our records indicates the following species occur on the refuge or are highly expected to be found in the future:

- Gray bat (*Myotis grisescens*) - Endangered
- Bald eagle (*Haliaeetus leucocephalus*) - Threatened
- Cahaba shiner (*Notropis cahabae*) - Endangered
- Goldline darter (*Percina aurolineata*) - Threatened
- Orange-nacre mucket mussel (*Hamiota perovalis*) - Threatened
- Fine-lined pocketbook mussel (*Hamiota altilis*) - Threatened
- Triangular kidneyshell (*Ptychobranthus greenii*) - Endangered
- Cylindrical lioplax snail (*Lioplax cyclostomaformis*) - Endangered
- Flat pebblesnail (*Lepyrium showalteri*) - Endangered
- Round rocksnail (*Leptoxis ampla*) - Threatened
- Mohr's Barbara's buttons (*Marshallia mohrii*) - Threatened
- Georgia rockcress (*Arabis georgiana*) - Candidate
- Georgia aster (*Symphotrichum georgiana*) - Candidate

[www.fws.gov](http://www.fws.gov)

PHONE: 251-441-5181



FAX: 251-441-6222

We recommend that Section VI.E. of the Intra-Service Section 7 Biological Evaluation Form and Sections 3.4.6, 4.2.7, and 4.3.1 of the accompanying Environmental Assessment be updated to reflect the listed species that have been found or are highly suspected to inhabit the refuge.

Based upon the information provided in the biological evaluation form and the accompanying Environmental Assessment, we agree with your determination of "not likely to adversely affect" for the gray bat, bald eagle, Cahaba shiner, goldline darter, orange-nacre mucket, fine-lined pocketbook, triangular kidneyshell, cylindrical lioplax, flat pebblesnail, round rocksnail, Mohr's Barbara's buttons, Georgia rockcress, and Georgia aster. According to our records, the remaining eight species listed in Table 1 of the biological evaluation form do not currently occur in or adjacent to the refuge. Therefore, we feel a determination of "no effect" for these species is more appropriate than a "not likely to adversely affect" determination unless additional data can be provided. In addition, the blue shiner is not found in the refuge nor is listed as occurring in Bibb County; therefore, it does not need to be considered in the biological evaluation and can be removed from Table 1.

No further endangered species consultation will be required for this portion of the project unless: 1) the identified action is subsequently modified in a manner that causes an effect on listed species or a designated critical habitat; 2) new information reveals the identified action may affect federally protected species or designated critical habitat in a manner or to an extent not previously considered; or 3) a new species is listed or critical habitat is designated under the Endangered Species Act that may be affected by the identified action.

We appreciate the opportunity to provide these comments in response to the proposed hunting plan. If you have any questions or need additional information, please contact Ms. Jodie Smithem at (251) 441-5842. Please refer to the reference number located at the top of this letter in future phone calls or written correspondence.

**REGION 4**  
**INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM**

**Originating Person: Steve Miller**

**Telephone Number: (256) 848-7085**

**E-Mail: stephen\_a\_miller@fws.gov**

**Date: 3/15/2007**

**PROJECT NAME (Grant Title/Number): Cahaba River National Wildlife Refuge Sport Hunting Plan**

**I. Service Program:**

**Ecological Services**

**Federal Aid**

**Clean Vessel Act**

**Coastal Wetlands**

**Endangered Species Section 6**

**Partners for Fish and Wildlife**

**Sport Fish Restoration**

**Wildlife Restoration**

**Fisheries**

**Refuges/Wildlife**

**II. State/Agency: Alabama**

**III. Station Name: Cahaba River National Wildlife Refuge**

**IV. Description of Proposed Action:**

Cahaba River National Wildlife Refuge is preparing a Sport Hunting Plan for the Refuge. An Environmental Assessment (EA) was prepared to evaluate the potential environmental consequences of implementing the plan. A review of potential effects on federally listed species was included in the EA. The plan proposes to allow hunting, in coordination with the State, for the following species: turkey, northern bobwhite, white-tailed deer, gray squirrel, eastern fox squirrel, eastern cottontail, bobcat, coyote, raccoon, opossum and feral hogs.

**V. Pertinent Species and Habitat:**

**A. Include species/habitat occurrence map:** Biological systems on the Refuge have been extensively surveyed by The Nature Conservancy (TNC). In addition, upland habitats were recently surveyed by the Alabama Heritage Program for the presence of federally listed endangered, threatened and candidate plant species. The results of these and past surveys are available for review in the Refuge's "Habitat Management Plan".

**B. Endangered, threatened and candidate Species of Bibb County (Table 1)**

SPECIES/CRITICAL HABITAT	STATUS <sup>1</sup>
round rocksnail ( <i>Leptoxis ampla</i> )	E
flat pebblesnail ( <i>Lepyrium showalteri</i> )	E
cylindrical lioplax ( <i>Lioplax cyclostomaformis</i> )	E
fine-lined pocketbook ( <i>Lampsilis altilis</i> )	T
Orange-nacre mucket mussel ( <i>Hamiota perovalis</i> )	T
triangular kidneyshell ( <i>Ptychobranchus greeni</i> )	E
Cahaba shiner ( <i>Notropis cahabae</i> )	E
goldline darter ( <i>Percina aurolineata</i> )	T
Mohr's Barbara's buttons ( <i>Marshallia mohri</i> )	T
Georgia rock-cress ( <i>Arabis georgiana</i> )	C
Georgia aster ( <i>Aster georgianus</i> )	C
bald eagle ( <i>Haliaeetus leucocephalus</i> )	T
gray bat ( <i>Myotis grisecens</i> )	E

<sup>1</sup> STATUS: E=endangered, T=threatened, PE=proposed endangered, PT=proposed threatened, CH=critical habitat, PCH=proposed critical habitat, C=candidate species

**VI. Location (attach map):**

- A. Ecoregion Number and Name:** Central Gulf Watershed (29)
- B. County and State:** Bibb County, Alabama
- C. Section, township, and range (or latitude and longitude):** Section 21, 27 and 28 T22S, R5W; Sections 2, 3, 9, 10, 11, 15, 16 and 17 T24N R10E
- D. Distance (miles) and direction to nearest town:** Just north of the confluence of the Little Cahaba and Cahaba Rivers and about 5 miles east of West Blocton, Alabama
- E. Species/habitat occurrence:** Thirteen species are listed by the Daphne Field Office as occurring in Bibb County (Table 1). Refuge surveys have revealed that ten of these species (round rocksnail, flat pebblesnail, cylindrical lioplax, fine-lined pocketbook, triangular kidneyshell, Cahaba shiner, goldline darter, Georgia aster, gray bat and bald eagle) occur on the Refuge. A detailed review of these species and their occurrence on the Refuge are provided in the HMP.

The Cahaba River, below mean-low water, is owned by the State of Alabama. Therefore, of the ten species documented on the Refuge, seven are aquatic and actually occur on state-waters adjacent to the Refuge. The eighth species, gray bat, is also tied to the river, with foraging along the river constituting the only known

refuge use by the bat. The bald eagle has been observed along the river during the spring, and potentially may nest on the Refuge at some future time. Only the Georgia aster is located on uplands that will be opened to hunting.

**VII. Determination of Effects:**

**A. Explanation of effects of the action on species and critical habitats in item V. B (attach additional pages as needed):**

SPECIES/ CRITICAL HABITAT	IMPACTS TO SPECIES/CRITICAL HABITAT
All species listed in Table 1	No impacts anticipated

With exception of Georgia aster and bald eagle, all species are found in aquatic systems or above the river. These habitats are not located in uplands that will be opened to hunting. The Georgia aster is a candidate species that is widely dispersed across the southern and northeastern portions of the refuge. Hunting is not anticipated to have any effect on the aster. The bald eagle may forage along the river and possibly nest on the Refuge in the future. If nesting occurs, the nest site will be identified and the area will be closed to the public during late winter and spring.

**B. Explanation of actions to be implemented to reduce adverse effects:**

SPECIES/ CRITICAL HABITAT	ACTIONS TO MITIGATE/MINIMIZE IMPACTS
All species listed in Table 1	N/A





STATE OF ALABAMA  
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
WILDLIFE AND FRESHWATER FISHERIES DIVISION

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BOB RILEY  
GOVERNOR

M. BARNETT LAWLEY  
COMMISSIONER

*The mission of the Wildlife and Freshwater Fisheries Division is to manage, protect, conserve, and enhance the wildlife and aquatic resources of Alabama for the sustainable benefit of the people of Alabama.*

M. N. 'CORKY' PUGH  
DIRECTOR

FRED R. HARDERS  
ASST. DIRECTOR

March 14, 2007

Dwight Cooley, Refuge Manager  
Wheeler National Wildlife Refuge  
2700 Refuge HQ Road  
Decatur, Al 35603

Dear Mr. Cooley:

Alabama Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries, personnel have reviewed the draft sport hunting plan for Cahaba River National Wildlife Refuge. We concur with and support the proposed hunting program described for Cahaba River NWR. We appreciate the opportunity to partner with you in administering the hunt program with our adjacent Cahaba River Wildlife Management Area. As the refuge increases in size, we look forward to working with you to provide additional hunting and other recreational opportunities for the public.

If you have any questions, please call me at (334)242-3465.

Sincerely,

M.N. Pugh, Director  
Division of Wildlife and Freshwater Fisheries

MNP/pt

## U.S. Fish & Wildlife Service

Department of the Interior  
U.S. Fish & Wildlife Service  
Cahaba River National Wildlife Refuge  
PO Box 5087  
Anniston, Alabama 36205  
Phone: (256) 848-7085  
Fax: (256) 847-9089  
<http://southeast.fws.gov/cahabariver>  
email: [cahabariver@fws.gov](mailto:cahabariver@fws.gov)

# News Release



FOR IMMEDIATE RELEASE March 5, 2007 CONTACT: Steve Miller (256) 848-7085 ext. 3

## **Cahaba River National Wildlife Refuge Sport Hunting Plan and Environmental Assessment is Available for Review and Comment**

Cahaba River National Wildlife Refuge in Bibb County, AL has developed a Draft Sport Hunting Plan that would allow hunting of upland and big game species on the refuge. An Environmental Assessment of the impacts of the proposed and other alternatives is also available for public comment. Copies of the Draft Sport Hunting Plan are available for downloading at the Cahaba River NWR website

<http://southeast.fws.gov/cahabariver> or by contacting the Refuge Manager at the above-listed phone number. The comment period for the Hunting Plan will begin on March 5<sup>th</sup> and all comments must be received by April 5<sup>th</sup> in order to be addressed in the final document. Comments will be accepted via fax, email or regular mail.

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. These documents address the hunting programs at Cahaba River National Wildlife Refuge in Alabama.

The Service is the principal federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service manages the 95-million-acre National Wildlife Refuge System, which encompasses 545 national wildlife refuges, thousands of small wetlands and other special management areas. It also operates 69 national fish hatcheries, 64 fishery resource offices and 78 ecological services field stations. The agency enforces federal wildlife laws, administers the Endangered Species Act, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps foreign governments with their conservation efforts. It also oversees the Federal Aid program that distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to state fish and wildlife agencies.

□ □ □

NOTE: This news release and others can be viewed on either the Service's Southeast Regional home page on the Internet at <http://southeast.fws.gov/news> or the National home page at: <http://news.fws.gov/>. You can also sign up to receive them via e-mail at these sites.

R04-119

## **Outreach Plan for Cahaba River NWR Hunting Plan and Environmental Assessment**

**Issue:**

USFWS, Cahaba River NWR has developed public drafts of its Hunting Plan and Environmental Assessment. Public involvement is crucial to the success of the refuge and wide distribution of the plan is important.

**Coordinators:**

USFWS: Steve Miller (256/848-7085 ext. 3)

**Goals:**

- explain to the public the process for opening the refuge to hunting
- inform the public about management plans
- educate the surrounding community about what an NWR is - wildlife comes first, with compatible public uses
- article in at least one newspaper with wide local distribution
- all documents made available on the refuge web site
- expand e-mailing list for the refuge to be used for future events/activities

**Message:**

- Cahaba River National Wildlife Refuge plans to open for hunting in 2007.
- Cahaba River NWR will be part of a network of natural lands in AL for ecotourism. We hope Cahaba River will become an important mainstay of the Bibb County economy by inviting people while ensuring that wildlife comes first.
- Cahaba River NWR is one of 11 national wildlife refuges in Alabama.

**Interested Parties:**

- Media Market: Birmingham, Tuscaloosa, Bibb County
- State and Local elected officials
- Local business community, Chamber of Commerce
- Community groups
- Tourism and recreation groups
- Conservation groups

**Key Dates:**

03/18/2004 Public scoping meeting at West Blocton High School  
03/05/2007 Public Comment Period on Hunting Plan begins  
04/04/2007 Public Comment Period on Hunting Plan ends