# Sport Hunting

# Decision Document Package

# for

# ST. CATHERINE CREEK NWR

## Contents


1. Hunting Plan
2. EA/FONSI
3. Section 7 Evaluation
4. Compatibility Statement
5. Letter of Concurrence
6. Refuge-Specific Regulations

UNITED STATES FISH AND WILDLIFE SERVICE

ENVIRONMENTAL ACTION MEMORANDUM

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 have determined that the action of: Opening St. Catherine Creek National Wildlife Refuge to Sport Hunting.

_____ is a categorical exclusion as provided by 516 DM 6 Appendix 1. No further documentation will 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 special environmental conditions as described in the attached Environmental Assessment. The attached Finding of No Significant Impact will not be final nor any actions taken pending a 30-day period for public review [40 CFR 1501.4(e)(2)].

_____ is found to have significant effects, and therefore a "Notice of Intent" will be published in the Federal Register to prepare an Environmental Impact Statement before the project is considered further.

_____ is denied because of environmental damage, Service policy, or mandate.

_____ is an emergency situation. 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:
- Hunting Plan
- EA/FONSI
- Section 7 Evaluation
- Compatibility Statement
- Letter of Concurrence
- Refuge-Specific Regulations

acting Regional Director — Date: 12 Feb 92

Initiator — Date: 10/15/91

ARD/Refuges and Wildlife — Date: 11/20/91

Associate Manager — Date: 11-13-91

REC — Date: 2/5/92

ARD/AWE — Date: 05 Feb 92

SPORT HUNTING PLAN

ST. CATHERINE CREEK NATIONAL WILDLIFE REFUGE

NOVEMBER 1991

Recommended by: Thomas F. Prusa — 10/15/91
Refuge Manager — Date

Reviewed by: Ray Aycock (Frank Bowers) — 10/21/91
Date

Don M. Lewis — 10/31/91
Ms. Dept. of Wildlife, Fisheries & Parks — Date

Dean H. McDowell — 11-13-91
Date

Approved by: acting W. J. Olds Jr. — 12 Feb 92
Regional Director — Date

# Sport Hunting

# Decision Document Package

# for

# ST. CATHERINE CREEK NWR

## Contents

1. Hunting Plan

# HUNTING PLAN

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## I. INTRODUCTION

The St. Catherine Creek National Wildlife Refuge (NWR)is being established to preserve wintering habitat for Mallards, Pintails, Blue-winged Teal, and Wood Ducks and production habitat for Wood Ducks to meet the habitat goals presented in the North American Waterfowl Management Plan. Establishment of the refuge and proper management will provide excellent wintering waterfowl habitat and a needed waterfowl refuge in the Lower Mississippi River Valley.

The refuge is located in the western section of Adams County (in Southwest Mississippi), about 7 miles south of the City of Natchez. The Western boundary is the Mississippi River with the Eastern boundary basically following the bluffs. Access to the property is by county roads and farm lanes. The potential size is approximately 22,000 acres. To date, 13,473 acres have been purchased. Catahoula National Wildlife Refuge lies 35 miles to the west and Yazoo National Wildlife Refuge lies 120 miles north.

Habitat within the area consists of bottomland and upland hardwoods, cleared land, cypress swamps, accreted land, and fallow fields. Flooding from the Mississippi River is a frequent occurrence and topography varies from flats to depressional swales and larger basins which fill with water from rains or backwater flooding.

Historically, maximum flooding in the St. Catherine Creek area has occurred in the Spring while minimum water levels are usually experienced in the Fall. Old St. Catherine Creek and Butler Lake are the two permanent water bodies on the refuge.

Refer to the Environmental Assessment for additional information.

## II. CONFORMANCE WITH STATUTORY AUTHORITIES

The Refuge Recreation Act of 1962 (16 U.S.C. 460K) authorizes the Secretary of the Interior to administer refuges, hatcheries, and other conservation areas for recreational use, when such uses do not interfere with the primary objectives for which the area was established. In addition, the Refuge Recreation Act requires (1) that any recreational use permitted will not interfere with the primary purpose for which the area was established; and (2) that funds are available for the development, operations, and maintenance of the permitted forms of recreation.

Sport hunting is a recreational use authorized by the regulations and will not interfere with the primary purposes

for which St. Catherine Creek NWR was established. This determination is based upon consideration of the Service's Final Environmental Impact Statement of the Operations of the National Wildlife Refuge System in November 1976, and the St. Catherine Creek National Wildlife Refuge Hunting Plan, the Environmental Assessment, and the Section 7 Evaluation. The cost of the proposed hunting program is estimated to be approximately $15,000 for the initial cost and $7,500 per year thereafter. Sufficient funds will be available within the refuge budget to operate the hunting program as proposed. It is estimated that 10,000 hunters visits per year will take place. The estimate will change as more land is acquired and sufficient data is collected.

Refer to the Compatibility Determination for additional information.

## III. STATEMENT OF OBJECTIVES

Preservation, improvement, and creation of habitat for waterfowl are the primary goals for St. Catherine Creek NWR. In order to meet specific refuge and other broader U.S. Fish and Wildlife Service directives, the following objectives have been established for St. Catherine Creek NWR:

1. To provide and maintain optimum habitat for migratory waterfowl consistent with the overall objectives of the Mississippi Flyway.

2. To provide habitat and protection for endangered species including the Peregrine Falcon and Bald Eagle.

3. To provide habitat for a natural diversity of wildlife and plant species.

4. To provide opportunities for wildlife-oriented recreation and environmental education when compatible with other refuge objectives.

The proposed sport hunting program would be designed to contribute to or be compatible with refuge objectives. It would provide a high quality wildlife-oriented recreation to the general public and the opportunity to utilize a renewable resource. It would also maintain some wildlife populations at optimum levels.

Refer to the Environmental Assessment for additional information.

## IV. ASSESSMENT

The area has historically been noted for its excellent hunting opportunities for white-tailed deer, waterfowl, and small game such as rabbits and squirrels. Although, presently the available habitat has been drastically altered through land clearing and draining, the area continues to support a thriving wildlife resource. Nearly all of the refuge area was leased by hunting clubs or commercial hunting enterprises prior to the government obtaining the property. Based on the preliminary assessment on the refuge and the experience of the Mississippi Department of Wildlife biologists and conservation officers, all indications support the fact that relevant wildlife populations are sufficient for hunting and for other refuge objectives.

Refer to the Environmental Assessment for additional information.

## V. DESCRIPTION OF HUNTING PROGRAM

The St. Catherine Creek NWR is in its initial acquisition stage of development. Presently, the refuge contains 13,473 acres with an anticipated addition of over 8,000 acres that remains within the acquisition area.

Because of the unpredictable refuge development time frame, the location of future land purchases, and the limited amount of waterfowl habitat at this time, the initial hunting program will involve only resident game including squirrels, rabbits, and white-tailed deer. A waterfowl hunting program is totally dependent on the capability of being able to have dependable water sources to maintain optimum water levels for waterfowl hunting. The amount of waterfowl habitat at this time would not support a public waterfowl hunting program. Seasons and bag limits for the resident hunt will be within the guidelines established by the Mississippi Department of Wildlife, Fisheries, and Parks but will likely be more conservative in general to assure compatibility with other refuge objectives. As the refuge develops, the hunting program will be reviewed on an annual basis and necessary changes will be made accordingly. The sport hunting program will be monitored by refuge personnel. The cost of the program would include personnel time, equipment, fuel, supplies, facility upgrading, etc.. A general permit system may be established to assure that all hunters are familiar with the specific regulations and areas open to hunting.

## VI. MEASURES TAKEN TO AVOID CONFLICTS WITH OTHER MANAGEMENT OBJECTIVES

### A. Biological Conflicts

See Section 7 Environmental Assessment.

The hunting program will be designed to minimize disturbance to over-wintering waterfowl. Small game and archery deer seasons open early in the fall and heavy hunting pressure occurs at the beginning of the season, prior to the arrival of large concentrations of wintering waterfowl. Zoning, season lengths, and waterfowl sanctuaries will be utilized to control significant disturbance to wintering waterfowl during peak waterfowl use periods for all hunts.

B. Public Use Conflicts

The proposed hunting program will be designed through time and space zoning to minimize conflicts between other refuge programs. It may be practical to separate the various user groups on the refuge during the fall/winter. As additional land is acquired, changes in the entire public use program will be necessary. These changes will take place as the refuge is developed and programs are fine tuned.

C. Administrative Conflicts

At this time no administrative conflicts are anticipated. As the refuge increases in size and programs, and additional hunters utilize the resource, increased funding and staffing will be necessary. The hunting program then will be in direct competition with other refuge programs. This is mentioned because it does warrant planning to minimize potential manpower and funding shortages to administer planned refuge programs.

## VII. CONDUCT OF THE HUNTING PROGRAM

A. Refuge-specific Hunting Regulations

The hunting program, seasons and bag limits, will fall within the framework established by the Mississippi Department of Wildlife, Fisheries, and Parks. The refuge hunting program will be reviewed annually and amended accordingly through refuge regulations.

B. Anticipated Public Reaction to the Hunt

Refer to the "Finding of No Significant Impact" of the Environmental Assessment.

C. Hunter Application, Registration, and Permit Procedures

General permits may be required for all hunting. In addition limited permits requiring pre-application may be required of deer hunters. Specific guidelines will be available at the refuge office.

D. Description of Hunter Selection Process

Limited permits, if required, will be distributed via a random drawing process.

E. Media Selection for Announcing and Publicizing the Hunt

The refuge will maintain a mailing list, for news release purposes, for newspapers, local radio, and television stations. News releases will be developed announcing the hunting season dates, where regulations can be obtained, and other pertinent information. These will then be mailed to each of the media contacts on the list.

F. Description of Hunter Orientation, Including Pre-Hunt Scouting

None.

G. Hunter Requirements

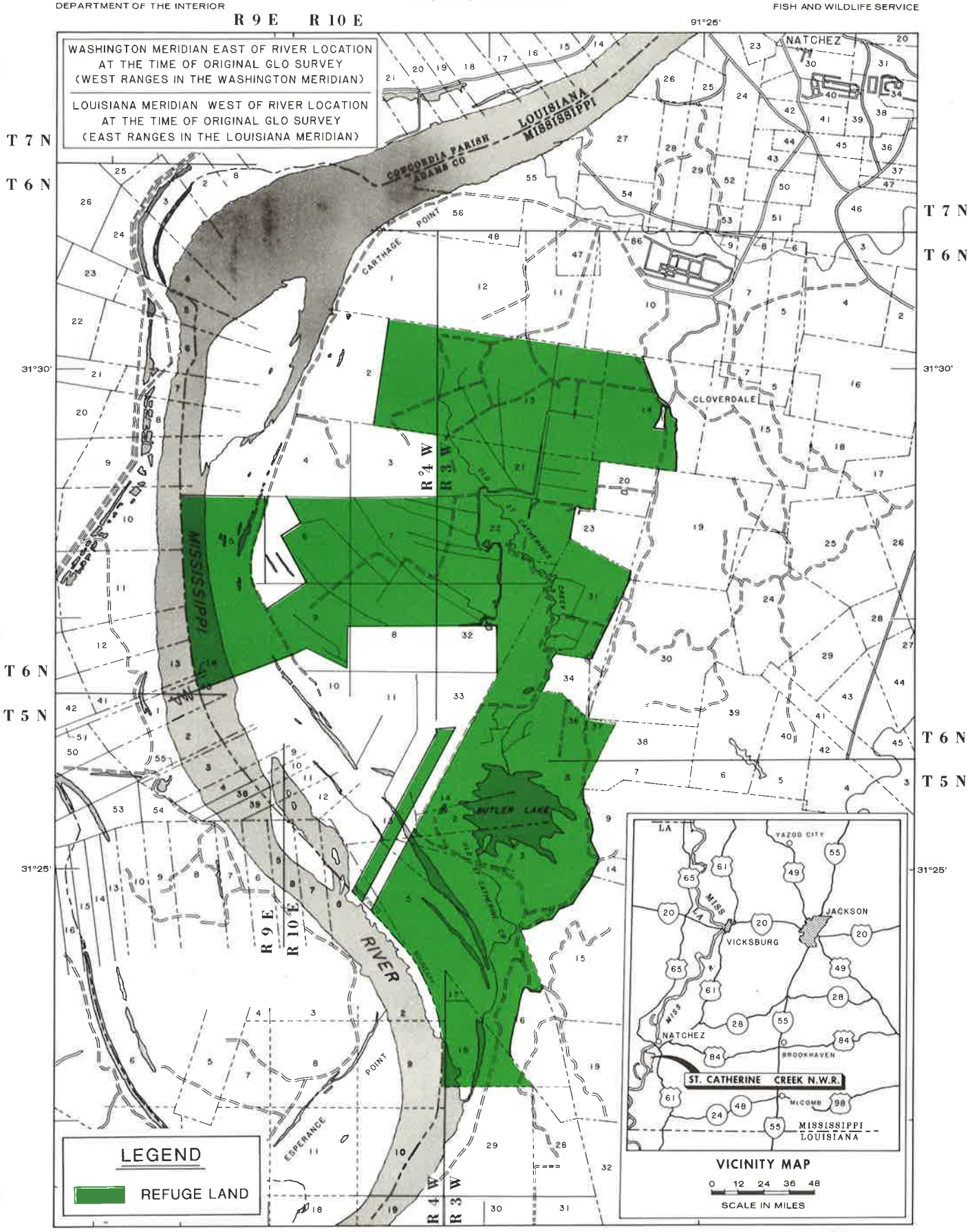
Hunting regulations governing the taking of game, allowable weapons, licenses, permits, limits, hunter orange, youth hunting, etc., are in accordance with state regulations and refuge-specific regulations published annually. Fires and camping are prohibited. All 50 CFR public use regulations are in effect.

# ST. CATHERINE CREEK NATIONAL WILDLIFE REFUGE

UNITED STATES
DEPARTMENT OF THE INTERIOR

ADAMS COUNTY, MISSISSIPPI

UNITED STATES
FISH AND WILDLIFE SERVICE




COMPILED IN THE DIVISION OF REALTY
FROM SURVEYS BY U. S. G. S.

LOUISIANA MERIDIAN, LOUISIANA
WASHINGTON MERIDIAN, MISSISSIPPI

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True North
Magnetic N.
3°05'
MEAN DECLINATION 1989

ATLANTA, GEORGIA AUGUST, 1989

Sport Hunting

Decision Document Package

for

# ST. CATHERINE CREEK NWR

## Contents

2. EA/FONSI

# ENVIRONMENTAL ASSESSMENT PROPOSED

# OPENING ST. CATHERINE CREEK NWR TO SPORT HUNTING

ADAMS COUNTY,
MISSISSIPPI

FOR FURTHER INFORMATION, CONTACT

REFUGE MANAGER

U.S. FISH AND WILDLIFE SERVICE

ST. CATHERINE CREEK NWR

P.O. BOX 18639

NATCHEZ, MS 39122

Prepared by:

U.S. Department of the Interior
Fish and Wildlife Service
Natchez, Mississippi
November 1991

## I. PURPOSE AND NEED FOR ACTION

The purpose of the proposed action is to legally open St. Catherine Creek National Wildlife Refuge (NWR) to resident game hunting. As a management objective, hunting provides the public with an opportunity to utilize a renewable resource. The removal of surplus animals prevents overpopulation of deer, which can be detrimental to the herd's health and well being, and negatively impact the environment. Hunting of deer and other species is compatible with refuge objectives, sound wildlife management, and in the public's interest on St. Catherine Creek NWR.

## II. ALTERNATIVES - INCLUDING THE PROPOSED ACTION

The proposed action will permit the public to hunt resident game species on St. Catherine Creek NWR according to established regulations. Alternatives to this proposal are:

1. No action
2. Limited hunting

Criteria for evaluation of alternatives include:

1. Compatibility with refuge objectives
2. Quantity and quality of data collected
3. Refuge cost
4. Involved public participation

### A. Proposed Action (Preferred Alternative)

The proposed action will permit the public to hunt resident game species on St. Catherine Creek NWR. The seasons will be within the framework of the Mississippi Department of Wildlife, Fisheries, and Parks regular state seasons and further regulated by refuge regulations according to Fish and Wildlife Service policy. Refuge management goals and objectives may require occasional modifications to the hunting program as harvest data, public use pressure, and refuge programs, including sanctuary areas for wintering waterfowl, are developed.

### B. No Action Alternative

Under this alternative, hunting would not be opened on St. Catherine Creek NWR. Wildlife population on the area could eventually expand beyond their habitat carrying capacity and threaten their existence and the

environment.

C. Limited Hunting Alternative

This action would permit hunting to be targeted to only those species identified as reaching their carrying capacity or in some other way threatening their existence, the well-being of other species, or the habitat.

## III. DESCRIPTION OF AFFECTED ENVIRONMENT

The refuge is adjacent to the Mississippi River in Adams County, Mississippi. This flat to gently rolling area was formed as the Mississippi River deposited alluvial soil during flood cycles.

Over 80% of the soils within the proposal are classified as poorly drained. These soils are subject to flooding annually and are waterlogged in lower areas for long periods. Natural flooding usually occurs in the Spring. Because of the flooding hazard, the row crop planting season is frequently delayed. However, crops have been successfully grown in all but extremely wet years.

Historically, maximum flooding in the St. Catherine Creek area has occurred in the Spring while minimum water levels are usually experienced in the Fall. In order for this area to be of maximum benefit for wintering waterfowl, water level management is necessary in order to ensure available water during the waterfowl migrations. This can be accomplished through impounding spring water, retaining rainfall, pumping from permanent water, and opportunistic use of Mississippi River backwater flooding.

Permanent water bodies within the refuge are the Old St. Catherine Creek and Butler Lake. Approximately 500 acres of permanent water are available on the refuge. Butler Lake is the largest permanent water body and contains approximately 400 acres of permanent water.

Primary species of bottomland hardwood timber within the refuge consist of tupelo gum, bald cypress, sycamore, sweet pecan, black willow, nuttal oak, hackberry, cottonwood, sweetgum, and water oak. The upland hardwoods on the bluff consist primarily of white oak, red oak, magnolia, hickory, and beech. Accreted lands along the river are predominantly pure willow stands.

Approximately 500 acres of cleared land not in cultivation have reverted to outstanding moist soil plant production areas with wild millets being the primary plant species. Smartweeds, foxtail, signal grass, and sedges are also very common plants and form the dominant non-agricultural plant

composition.

Agricultural crops currently being grown are soybeans and winter wheat. Cotton has not been grown since 1970. Currently 2,656 acres, in the Conservation Reserve Program, have been planted with oak acorns. Success has not been determined, but through preliminary investigations by Fish and Wildlife Service Foresters, the planting success is probably very low.

The refuge is a backwater wetland complex lying at the base of the alluvial escarpment and consisting of four distinct topographic features: batture, natural levees, ridges and swales, and basins and flats. Approximately 35% percent of the area is cleared land, 30% is woods or swamps, 20% is open water, and 15% is accreted land. The batture, a flat, low area between the natural levees and the mississippi River, consists of sandbars and old river scars in various stages of oxbow lake development. Land has been rapidly accreting in this area and over 1,000 acres have been added to adjacent landowners over the last 15 years.

The natural levees parallel the river and are formed by the heaviest sediments which are the first to settle as the river periodically rises and inundates the floodplain. Due to the rich soil and higher elevations, these areas were generally the first to be cleared and farmed as land clearing advanced into the floodplain. Historically, the natural levees supported mixed hardwoods. Within the refuge, most of the natural levees are in agricultural production (soybeans and wheat) or set aside programs. Ridges and swales are the remnant landforms resulting from historic meanders of the river.

Due to a system of ditches and water control structures, some of this area is being farmed, other areas still support bottomland hardwoods, and still other areas, previously cleared, are reverting to natural moist soil vegetation. Basins and flats consist of swamp areas, generally occupying low elevations near the escarpment or bluff line. Other depressional areas occur along Old St. Catherine Creek and spread out across the floodplain. As river flooding stages continue to increase above the natural levee elevations, overland flows commence and fill depressional swales.

A well developed system of ditches and control structures are in place over most of the refuge. These structures were designed primarily to take water off the cleared land in the Spring; however, they can also be operated to hold water on the property during waterfowl wintering season. There are a number of natural springs originating in the adjacent hills. A major ditch has been constructed to divert sediment laden flows from Old St. Catherine Creek around Butler Lake. Construction of this ditch was never completed to be totally

functional.

Several times, since passage of the Flood Control Act of 1928, the Corps of Engineers has conducted studies to determine the feasibility of providing flood control to lands south of Natchez on the Mississippi River east bank. A recent study, done by the Corp in 1986, proposed construction of a 12.4 mile ring levee and installation of a 300 CFS pump with appurtenant channels. The Service concluded that as proposed the project would result in the loss of increasingly scarce Mississippi River floodplain habitat, a resource that has already been reduced throughout the Lower Mississippi Valley to critical levels.

Subsequently, the Corps redesigned this project to include only a 3.7 mile ring levee north of the proposed refuge boundary for a planned port expansion for Natchez. The Service has no objection to the project as now proposed.

A preliminary contaminant survey of the refuge was conducted by the Service. The investigation consisted of interviews with State and Federal agencies, a review of pertinent reports and data, and a cursory reconnaissance of the acquisition area. There were no samples collected or chemical analyses conducted.

The principal contaminant concerns relate to oil production and past agricultural practices. There are several oil fields on the refuge. Oil spills and brine discharges to surface, as well as ground waters, are potential problems. The Environmental Protection Agency has been contacted to conduct a Spill Prevention Control and Countermeasure inspection of the area. Based on current and recent agricultural practices, pesticides should not be of particular concern.

The St. Catherine Creek area has historically wintered large concentrations of ducks and, with the recent increase in winter wheat production, limited numbers of geese. Mallards, pintails, and other dabblers utilize the basins, flats, and depressional swales filled with shallow water from winter rains or backwater flooding. Wood ducks are found primarily in the cypress swamps and the permanent water areas contain good concentrations of ring-neck and scaup.

Midwinter waterfowl surveys for the Natchez to the Louisiana line, Adams and Wilkinson Counties, during 1989 and 1990 averaged 35,600 Mallards and 6,700 pintails. The Mississippi Department of Wildlife Conservation has indicated that this area winters up to 100,000 ducks 70% Mallards, in years of favorable water conditions.

The St. Catherine Creek area is significant to wintering

waterfowl due to: (1.) geographic location in the Mississippi Flyway, (2.) habitat diversity, and (3.) seasonal flooding. At present no other Federal or State waterfowl refuge is located along the Mississippi River south of Yazoo National Wildlife Refuge within the State of Mississippi, a distance of about 120 miles.

Other game birds include doves which can be observed in great abundance feeding along roadsides, in grain fields, or perched along electric lines. Quail are also common in the fallow fields and woodcock are a regular winter resident.

Raptors frequent the fallow fields in search of rodents. Bald eagles, attracted by natural mortality of the waterfowl concentrations, winter in this area. Wading birds are abundant and species regularly observed include green-backed herons, cattle egrets, snowy egrets, great egrets, little blue herons, great blue herons, anhingas, white ibis, glossy ibis, and Louisiana herons. Endangered species likely to occur on the proposal area are wintering bald eagles, wood storks, and occasionally migrating peregrine falcons.

Thousands of shore birds utilize both the permanent water and the hundreds of acres of converted wetlands, most of which have now reverted to moist soil vegetation. The bottomland hardwood forests serve as both permanent homes and migration habitat for many species of passerine birds.

Big game species include deer and turkey. Deer are abundant and several clubs have had most of the area leased for deer hunting.

Small game and fur-bearers are prevalent. Squirrel and rabbit are very common on the project area as are coyote, beaver, otter, mink, nutria, raccoon, gray fox, red fox, bobcat, and opossum.

## IV. ENVIRONMENTAL CONSEQUENCES

This section addresses the environmental impacts of the proposed action. Impacts, both beneficial and adverse, are inherent in any hunting program. Adverse impacts associated with hunting on St. Catherine Creek NWR include: disturbance of other wildlife, killing of non-target animals due to malicious or illegal huntering activities, and damage to refuge physical developments such as roads and levees, due to hunter use during wet weather periods. These adverse impacts are at present minimal and relatively easy to control with appropriate Federal law enforcement measures. Therefore, these adverse effects will not be addressed separately in the discussion of each alternative.

Beneficial impacts include providing opportunity for

recreational use of a renewable resource. By Service policy this is recognized as an acceptable, appropriate use as long as this use does not conflict with other refuge objectives, aids in meeting the established refuge objective, aids in meeting the established refuge objective for public use, and serves as a biological management tool in maintaining optimum population levels for some species. These beneficial impacts of a particular alternative will not be addressed unless the effects are considered significant. A Section 7 endangered species evaluation has been completed and resulted in a "will not effect" conclusion for the hunting seasons proposed under the preferred alternative. All refuge hunts will continuously be monitored to identify potential impacts to listed species.

A. Proposed Action (Preferred Alternative)

1. Small Game:

Population levels of small game species are generally good to excellent in the non-agricultural areas. The hunting removal rates occurring under the proposal will not affect overall status of these species.

Annual turnover rates for these species including squirrel and rabbit are generally very high due to natural mortality. As a result, normal hunting does not affect the annual breeding population. However, the actual removal of animals during the proposed hunts constitutes an irretrievable commitment on parts of the existing population.

2. Big Game:

In big game (white-tailed deer) when the population exceeds the carrying capacity, biological parameters indicate the deterioration of the herd quality. These parameters would include weight, antler size, reproductive rates, etc.. The proposed action will permit monitoring the status of the deer herd based on these parameters and adjusting the harvest level to maintain a quality herd. Hunting, while maintaining herd numbers within acceptable levels, will provide opportunities to utilize a renewable resource. The season structures will be designed to remove about 25 to 35 percent of the refuge deer herd at carrying capacity while attempting to optimize hunter opportunities in regard to expressed overall demand. Hunting seasons may be adjusted annually to take into consideration changes indicated in herd quality by biological monitoring. Hunting serves as the major control mechanism for preventing problem caused by overpopulation. However, as with the other hunts contained within the proposal, it is impossible to

prevent the occasional killing of non-target species.

Implementation of the preferred alternative concurs with the overall goals and wildlife management objectives established for St. Catherine Creek NWR.

B. No Action Alternative

Beneficial impacts of this alternative include the elimination or reduction in the disturbance to target and non-target species, reduction in the incidental killing of non-target species, and meeting the needs of that sector of the public opposed to killing animals. Greater protection to endangered species would result from this alternative. Also, there would be little impact upon population levels of most resident small game species such as squirrel and rabbit. Annual small game turnover rates caused by natural mortality usually are sufficient to maintain optimum population levels without affecting the status of other occurring species. Short-term population level increases would undoubtedly occur, but these increases would probably not be maintained. However, this alternative would cause major adverse impacts to the refuge deer population. Overpopulation could result within a relatively short time period creating problems. Also, the many stress factors associated with over population would expand during the periods of extended floods. High mortality would probably occur due to diseases such as epizootic hemorrhagic disease. This alternative would result in a reduction in public use for the consumptive sportsman and loss of revenue for the area.

C. Limited Hunting Alternative

The season structure under this alternative would be set to allow minimal hunting opportunities on St. Catherine Creek NWR. Only those species (white-tailed deer) identified annually as reaching carrying capacity or in any way threatening their, or other species' existence or environment would be targeted. Following this criteria would minimize the adverse impacts imposed on wildlife as a result of limited hunting. Another beneficial impact of the alternative is that the cost of administering the hunting program would be reduced, resulting in an increase in funds available for other management options. Hunter opportunities would also be reduced which would create more competition among hunters and possibly result in having to restrict the number of hunters on each hunt. This would impair the ability of the refuge to meet the established public use objectives.

## V. CONSULTATION AND COORDINATION WITH OTHERS

Numerous contacts were made throughout the areas of the refuge soliciting comments, views, and ideas into the development of the accompanying hunting plan. The Mississippi Department of Wildlife, Fisheries, and Parks concurs and fully supports the regulated consumptive public use of the natural resources associated with the St. Catherine Creek NWR. A letter supporting this proposal was received from the Mississippi Department of Wildlife, Fisheries, and Parks and is included as part of this document.

The Fish and Wildlife Service also provided an in-depth review by the Regional Office personnel and staff biologist.

Attachment 1

# CATHERINE CREEK NATIONAL WILDLIFE REFUGE

## REFUGE OBJECTIVES

1. To provide and maintain optimum habitat for migratory waterfowl consistent with the overall objectives of the Mississippi flyway.

2. To provide habitat and protection for endangered species including the Peregrine Falcon and Bald Eagle.

3. To provide habitat for a natural diversity of wildlife and plant species.

4. To provide opportunities for wildlife-oriented recreation and environmental education when compatible with other refuge objectives.

FINDINGS OF NO SIGNIFICANT IMPACT

FOR

OPENING SPORT HUNTING

ON

ST. CATHERINE CREEK NWR

I have determined that the proposed opening of hunting on the St. Catherine Creek National Wildlife Refuge will not have a significant effect on the human environment within the meaning of Section 102 (2) (c) of the National Environmental Policy Act of 1969. Accordingly, an Environmental Impact Statement will not be prepared.

This determination is based on the following reasons:

1. This proposal is compatible with general Service policy regarding the establishment of hunting on a National Wildlife Refuge.

2. This proposal is compatible with the purposes for which the St. Catherine Creek National Wildlife Refuge was established.

3. This proposal does not initiate widespread controversy or litigation.

4. There are no conflicts with local, Regional, State, or Federal plans or policies.

Supporting Reference:

1. Environmental Assessment (attached)

2. Section 7 Endangered Species Evaluation (attached)

3. Refuge Hunting Plan (attached)

4. Refuge Objectives (Attachment 1)

12 Feb 92
Date

W. J. Olds Jr.
acting Regional Director

# Sport Hunting

# Decision Document Package

# for

# ST. CATHERINE CREEK NWR

## Contents

3. Section 7 Evaluation

# SECTION 7 EVALUATION

**REGION:** 4

**LOCATION (ATTACH MAP):**

St. Catherine Creek National Wildlife Refuge, Adams County, Mississippi

**LISTED SPECIES OR CRITICAL HABITAT CONSIDERED:**

Peregrine Falcon, Bald Eagle

**NAME AND DESCRIPTION OF ACTION:**

The proposed action would open the St. Catherine Creek NWR to sport hunting. It would be in accordance with Mississippi Department of Wildlife, Fisheries, and Parks regulations, SOCFR, and special refuge regulations.

**OBJECTIVES OF THE ACTION:**

To provide sport hunting on St. Catherine Creek NWR. Sport hunting is an acceptable, traditional form of wildlife-oriented recreation and is compatible with the purposes for which the refuge was established.

**EXPLANATION OF IMPACT OF ACTION OF LISTED SPECIES OR CRITICAL HABITAT:**

Proposed action will not affect listed species.

**RECOMMENDATION TO AVOID ANY IMPACTS:**

In order to avoid any future impacts on the above listed species, each acquired tract will be monitored for endangered species use, and regulations or closures will be used to protect endangered species from impacts.

## SECTION 7 EVALUATION

PROJECT LEADER: Thomas F. Spraos DATE 10/15/91

COMMENTS:

WILL NOT AFFECT: X MAY AFFECT _____

ENDANGERED SPECIES SUPERVISOR: Alan J. Mueller DATE 10/25/91

COMMENTS:

WILL NOT AFFECT: X MAY AFFECT _____

ARD-FWE W. J. Olds Jr. DATE 05 Feb 92

COMMENTS:

WILL NOT AFFECT: X MAY AFFECT _____

ARD-FA: _____ DATE _____

COMMENTS:

WILL NOT AFFECT: _____ MAY AFFECT: _____

acting REGIONAL DIRECTOR: W. J. Olds Jr. DATE 12 Feb 92

COMMENTS:

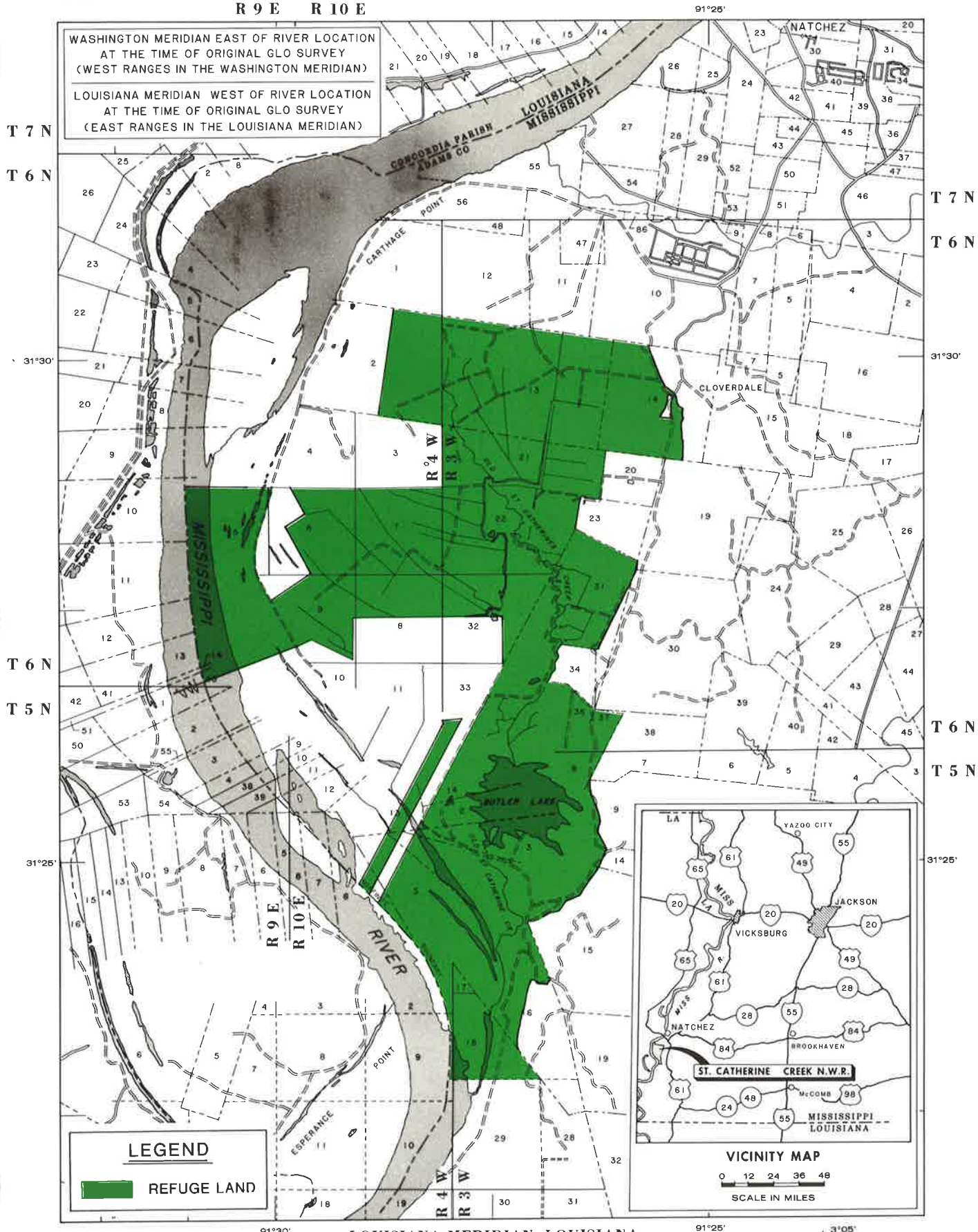
WILL NOT AFFECT: X BIOLOGICAL OPINION: _____

# ST. CATHERINE CREEK NATIONAL WILDLIFE REFUGE

UNITED STATES
DEPARTMENT OF THE INTERIOR

ADAMS COUNTY, MISSISSIPPI

UNITED STATES
FISH AND WILDLIFE SERVICE




COMPILED IN THE DIVISION OF REALTY
FROM SURVEYS BY U. S. G. S.

ATLANTA, GEORGIA AUGUST, 1989

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WASHINGTON MERIDIAN, MISSISSIPPI

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0 1/2 1 2 MILES

3°05'
True North
Magnetic N
MEAN DECLINATION 1989

# Sport Hunting

# Decision Document Package

# for

# ST. CATHERINE CREEK NWR

## Contents

4. Compatibility Statement

U.S. FISH AND WILDLIFE SERVICE

COMPATIBILITY DETERMINATION

Station Name: St. Catherine Creek NWR Date Established: 1990

Establishing Authority: Migratory Bird Conservation Act of 1927 and Emergency Wetland Resources Act of 1986

Purpose(s) for which Established: To protect and preserve a portion of internationally significant waterfowl habitat

Description of Proposed use: Open sport hunting on the St Catherine Creek NWR

Anticipated Impacts on Refuge Purpose(s): No detrimental impacts are anticipated.

Determination:

This use is compatible X This use is not compatible _____
(Check one)

The following stipulations are required to ensure compatibility:

To insure compatibility, time, and zone restrictions may be implemented as land acquisition progresses.

Justification: Sport hunting is compatible with the objectives of the refuge and provides recreational opportunities and consumptive public use of a renewable resource.

Prepared by: THOMAS F. PRUSA - REFUGE MANAGER Thomas F. Prusa 10/15/91
(Name/Title/Signature/Date

Reviewed by: Dean H. McDaniel 11-13-91
(Name/Title/Signature/Date

Reviewed by: Harold W. Benson - Assistant Regional Director R/W 11/20/91
(Name/Title/Signature/Date)

W. J. Alb[illegible] Acting Regional Director 12 Feb 92
(Name/Title/Signature/Date)

_____
(Name/Title/Signature/Date)

# Sport Hunting

# Decision Document Package

# for

# ST. CATHERINE CREEK NWR

## Contents

5. Letter of Concurrence

**STATE OF MISSISSIPPI**
**Department of Wildlife,**
**Fisheries and Parks**

**RAY MABUS**
Governor

October 8, 1991

Tom Prusa, Refuge Manager
U S Fish and Wildlife Service
P O Box 18639
Natchez, MS 39122

Dear Mr. Prusa:

The Mississippi Department of Wildlife, Fisheries and Parks fully supports the opening of St. Catherine Creek National Wildlife Refuge to sport hunting. We feel very strongly that hunting and trapping are very important wildlife management tools. Using these tools as a part of your wildlife management program allows access to the refuge lands by the sportsmen who provided funding for their acquisition. We look forward toward working with you and having input into any hunt management practices that you may implement. Again, we strongly support public hunting opportunity on St. Catherine Creek NWR.

Sincerely,

Jack Herring
Executive Director

cc: Jim Pulliam

P. O. Box 451, Jackson, MS 39205-0451, (601) 362-9212

# Sport Hunting

# Decision Document Package

# for

# ST. CATHERINE CREEK NWR

## Contents

6. Refuge-Specific Regulations

REFUGE SPECIFIC REGULATIONS

50 CFR PART 32

32.22 Refuge-specific regulations: upland game.

(v) Mississippi

( ) *St. Catherine Creek National Wildlife Refuge*. Hunting of squirrel, rabbit, beaver, nutria, muskrat, bobcat, and coyote is permitted on designated areas of the refuge subject to the following condition: Permits are required.

32.32 Refuge-specific regulations: big game.

(y) Mississippi

( ) *St. Catherine Creek National Wildlife Refuge*. Hunting of white-tailed deer is permitted on designated areas of the refuge subject to the following condition : Permits are required.

**Amendment to the Sport Hunting**

**Decision Document Package for**

# ST. CATHERINE CREEK NWR

**Contents**


1. Migratory Game Bird Hunting Plan
2. EA/FONSI
3. Section 7 Evaluation
4. Compatibility Statement
5. Recreation Act Funding Analysis Form
6. Letter of Concurrence
7. Refuge-Specific Regulations

**MIGRATORY GAME BIRD HUNTING PLAN**

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**Admendment to the Sport Hunting**

**Decision Document Package for**

# ST. CATHERINE CREEK NWR

**Contents**

1. Migratory Game Bird Hunting Plan

UNITED STATES FISH AND WILDLIFE SERVICE

ENVIRONMENTAL ACTION MEMORANDUM

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 have determined that the action of: Opening St. Catherine Creek National Wildlife Refuge to migratory game bird hunting.

____ is a categorical exclusion as provided by 516 DM 6 Appendix 1. No further documentation will 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 special environmental conditions as described in the attached Environmental Assessment. The attached Finding of No Significant Impact will not be final nor any actions taken pending a 30-day period for public review [40 CFR 1501.4(e)(2)].

____ is found to have significant effects, and therefore a "Notice of Intent" will be published in the Federal Register to prepare an Environmental Impact Statement before the project is considered further.

____ is denied because of environmental damage, Service policy, or mandate.

____ is an emergency situation. 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:
- Migratory Game Bird Hunting Plan
- EA/FONSI
- Section 7 Evaluation
- Compatibility Statement
- Letter of Concurrence
- Refuge-Specific Regulations

Ray Aycock 1-22-97
Supervisory Wildlife Mgt. Biologist

MaParker
for Regional Director Date

Thomas F. Sprusa 1-15-97
Initiator Date

MaParker 2/13/97
ARD/Refuges and Wildlife Date

Jerry Burnett 2/13/97
Associate Manager Date

Bruce C Bell 2/18/97
REC Date

ARD/AWE Date

**Miratory Game Bird Hunting Plan**

**For**

# St. Catherine Creek National Wildlife Refuge

Natchez, Mississippi

1997

Recommended by: Thomas F. Brusa 1-15-97
Refuge Manager Date

Reviewed by: Ray Aycock 1-22-97
Wildlife Management Biologist Date

Reviewed by: [illegible] Burnett 2/13/97
Associate Manager Date

Approved by: for M A Parker 2/13/97
Assistant Regional Director Date

## I. Introduction

This is an amendment to the St. Catherine Creek National Wildlife Refuge 1991 Sport Hunting Plan. While following the general framework of the initial plan, it's the purpose of this addendum to legally open the Refuge to migratory game bird hunting. Initially the hunting program included resident game only (squirrels, rabbits, white-tailed deer). It did not include migratory game bird hunting due in large part to the limited habitat available for a quality hunting program.

St. Catherine Creek NWR was established primarily to preserve wintering habitat for mallards, pintails, blue-winged teal, and wood ducks and production habitat for wood ducks to meet the habitat goals presented in the North American Waterfowl Management Plan. Since the Refuge was first established in 1990, most management efforts have been directed toward the development and enhancement of habitat to increase waterfowl use on the Refuge. This would also increase the recreational opportunities for migratory game bird hunting.

This addendum specifies the provisions for migratory game bird hunting on St. Catherine Creek NWR but reflects the general guidelines of the initial 1991 Hunting Plan. For further information refer to the Sport Hunting Plan.

## II. Conformance with Statutory Authorities

The Refuge Recreation Act of 1962 (16 U.S.C. 460K) authorizes the Secretary of the Interior to administer refuges, hatcheries, and other conservation areas for recreational use, when such uses do not interfere with the primary objectives for which the area was established. In addition, the Refuge Recreation Act requires (1) that any recreational use permitted will not interfere with the primary purpose for which the area was established; and (2) that funds are available for the development, operations, and maintenance of the permitted forms of recreation.

Migratory game bird hunting is a recreational use authorized by the regulations and will not interfere with the primary purposes for which St. Catherine Creek NWR was established. This determination is based upon consideration of the Service's Final Environmental Impact Statement of the Operations of the National Wildlife Refuge System in November 1976, and the St. Catherine Creek National Wildlife Refuge Hunting Plan, the Environmental Assessment, and the Section 7 Evaluation.



FEB- 7-97 FRI 8:37 AM U S FISH & WILDLIFE SERV FAX NO. 601 445 0182 P. 2

## III. Statement of Objectives

As stated in the 1991 Hunting Plan, preservation, improvement, and creation of habitat for waterfowl are the primary goals for St. Catherine Creek NWR. In order to meet specific Refuge and other broader U.S. Fish and Wildlife Service directives, the following objectives have been established for St. Catherine Creek NWR:

1.) To provide and maintain optimum habitat for migratory waterfowl consistent with the overall objectives of the Mississippi Flyway.

2.) To provide habitat and protection for endangered species including the Peregrine Falcon and Bald Eagle.

3.) To provide habitat for a natural diversity of wildlife and plant species.

4.) To provide opportunities for wildlife-oriented recreation and environmental education when compatible with other Refuge objectives.

## IV. Assessment

The area has historically been a waterfowl haven, offering excellent hunting opportunities. With the increased habitat acres and improved water management capabilities, the Refuge will easily support a migratory game bird hunting program that would be compatible with Refuge objectives. Mid-winter waterfowl surveys reveal for 1992 - 1995 an average of 14,000 ducks utilized the Refuge. These numbers do not reflect duck populations in the new Sibley acquisition unit of the Refuge. The Mississippi Department of Wildlife Fisheries and Parks has indicated this area of southwestern Mississippi to the Louisiana line winters up to 100,000 ducks under optimal conditions.

## V. Description of Hunting Program

Currently, St. Catherine Creek NWR contains 24,125 acres. The recent acquisition of the Sibley Unit increases the likelihood for a quality migratory game bird hunting program. Sibley and the Butler Lake area are two general locations proposed for the hunting program.

A. The Butler Lake Unit is located nine miles south of Natchez, Mississippi on U.S. Highway 61 South and four miles west on Hutchins Landing Road. This 400 acre lake supports good numbers of mallards and teal using the shallows and weedy areas bordering the lake.

B. The new acquisition area of the Refuge known as the Sibley Unit is accessible from U.S. Highway 61 South about eleven miles south of Natchez, Mississippi. York Road runs approximately one mile west from the community of Sibley, Mississippi to the entrance of the Sibley Unit. This unit provides ideal wintering habitat for ducks, mallards, pintails, blue and green-winged teal, gadwalls, canvasbacks, wigeon, and ring-necked ducks. These wintering waterfowl utilize the bottomland farm ground, cypress swamps, lakes and bayous.

The Butler Lake Unit and prescribed areas of the Sibley Unit have permanent and dependable water sources to maintain optimum water levels. St. Catherine Creek, which feeds into Butler Lake, ditches, and open fields that are subject to backwater flooding, will not be open to hunting, but will serve as sanctuaries for the birds. The Butler Lake Unit and the Sibley Unit are suitable areas providing substantial water levels and habitat for several hundred ducks. A quality migratory game bird hunt could easily be conducted in these areas. Seasons and bag limits for the duck hunt will be within the guidelines established by the U.S. Fish and Wildlife Service and the Department of Wildlife Fisheries and Parks, but will likely be more conservative in general to assure compatibility with other Refuge hunting programs and objectives. Like all other Refuge hunts, the migratory game bird hunting program will be reviewed on an annual basis and necessary changes will be made accordingly. The migratory game bird hunt will be monitored closely by Refuge personnel. It is unknown at this time of such particulars as the numbers of hunters that will be permitted to hunt at a time. Like the resident game hunts on the Refuge, the areas open to hunting may self-regulate the numbers of hunters they are able to accommodate. The cost of the program would coincide with other hunting programs to include personnel time, equipment, fuel, supplies, facility upgrading, etc. Possession of a general Refuge permit will be required of migratory game bird hunters.

## VI. Measures Taken to Avoid Conflicts With Other Management Objectives

See Section 7 Environmental Assessment

A. Biological Conflicts The migratory game bird hunt will be held in open water zones which will minimize disturbance to other Refuge hunting programs and objectives. The hunts will also be closely monitored to control the disturbance to overall wintering populations during peak waterfowl use. Bald Eagle nesting sights exist in close proximity to proposed migratory game bird hunting areas. To prevent disturbance to the eagles or their nests, no hunting zones will be established.



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B. Public Use Conflicts

The proposed hunting progam will be designed through time and space zoning to minimize conflicts between other Refuge programs. It may be practical to separate the various user groups on the Refuge during the fall/winter. As additional land is acquired, changes in the entire public use program will be necesary. These changes will take place as the Refuge is developed and programs are fine tuned.

C. Administrative Conflicts

At this time no administrative conflicts are anticipated. As the Refuge increases in size and programs, and additional hunters utilize the resource, increased funding and staffing will be necessary. The hunting program then will be in direct competition with other Refuge programs. This is mentioned because it does warrant planning to minimize potential manpower and funding shortages to administer planned Refuge programs.

VII. Conduct of The Migratory Game Bird Hunt

A. Refuge Specific Hunting Regulations All resident game hunting programs on the Refuge with regards to their season lengths and bag limits fall within the guidelines established by the Mississippi Department of Wildlife, Fisheries, and Parks. The U.S. Fish and Wildlife Service, however, has the responsibility of establishing the general framework for the states to follow concerning the seasons and bag limits on migratory waterfowl. The Refuge migratory game bird hunt program will be reviewed annually and amended accordingly through Refuge regulations.

B. Anticipated Public Reaction to the Hunt Refer to the "Finding of No Significant Impact" of the Environmental Assessment.

C. Hunter Application, Registration, and Permit Procedures A general Refuge permit will be required of migratory game bird hunters as are hunters participating in other Refuge hunts. Presently, fees are not charged for Refuge hunts, but this may be subject to change. Hunting fees would be used on the Refuge for maintenance and development of public use facilities.

D. Hunter Requirements In addition to the Refuge permit, hunters will be required to possess a valid Mississippi resident or non-resident hunting license with a current

Federal waterfowl stamp and a Mississippi State waterfowl stamp. Hunting regulations governing the taking of game, allowable weapons, limits, season lengths, etc., are in accordance with state regulations and Refuge-specific regulations published annually. Hunters must adhere to all boating regulations as prescribed by the Mississippi boating regulation handbook. Migratory game bird hunters must use steel or other approved non toxic shot, and a plug must be in the gun allowing no more than three shells in the firearm.



FEB- 7-97 FRI 8:38 AM U S FISH & WILDLIFE SERV FAX NO. 601 445 0182 P. 4

**Amendment to the Sport Hunting**

**Decision Document Package for**

# ST. CATHERINE CREEK NWR

**Contents**

2. EA/FONSI

**ENVIRONMENTAL ASSESSMENT PROPOSED**

**OPENING ST. CATHERINE CREEK NWR TO MIGRATORY GAME BIRD HUNTING**

ADAMS COUNTY,
MISSISSIPPI

FOR FURTHER INFORMATION, CONTACT

REFUGE MANAGER

U.S. FISH AND WILDLIFE SERVICE

ST. CATHERINE CREEK NWR

P.O. BOX 18639

NATCHEZ, MS 39122

Prepared by:

U.S. Department of the Interior
Fish and Wildlife Service
Natchez, Mississippi
November 1997

## I. PURPOSE AND NEED FOR ACTION

The purpose of the proposed action is to legally open St. Catherine Creek National Wildlife Refuge (NWR) to migratory game bird hunting. As a management objective, hunting provides the public with an opportunity to utilize a renewable resource. The removal of surplus waterfowl prevents overpopulation of ducks, which can be detrimental to the health and well being of the population, and negatively impact the environment. Hunting ducks and other species is compatible with refuge objectives, sound wildlife management, and in the public's interest on St. Catherine Creek NWR.

## II. ALTERNATIVES - INCLUDING THE PROPOSED ACTION

The proposed action will permit the public to hunt migratory game birds (ducks, mergansers, coots, geese) species on St. Catherine Creek NWR according to established regulations. Alternatives to this proposal are:

1. No action

Criteria for evaluation of alternatives include:

1. Compatibility with refuge objectives
2. Quantity and quality of data collected
3. Refuge cost
4. Involved public participation

### A. Proposed Action (Preferred Alternative)

The proposed action will permit the public to hunt waterfowl species on St. Catherine Creek NWR. This is in addition to hunting programs already in operation. The seasons will be within the framework of the Mississippi Department of Wildlife, Fisheries, and Parks regular state seasons and further regulated by refuge regulations according to Fish and Wildlife Service policy. Refuge management goals and objectives may require occasional modifications to the hunting program as harvest data, public use pressure, and refuge programs, including additional sanctuary areas for wintering waterfowl, are developed.

### B. No Action Alternative

Under this alternative, migratory game bird hunting would not be opened on St. Catherine Creek NWR. Initially, when St. Catherine Creek NWR was established, it was one

of the conditions that Mississippi Department of Wildlife Fisheries and Parks (MDWFP) supported Service efforts to acquire this land if hunting opportunities would be opened to the public, especially for migratory game bird hunting.

## III. DESCRIPTION OF AFFECTED ENVIRONMENT

The refuge is adjacent to the Mississippi River in Adams and Wilkinson Counties, Mississippi. This flat to gently rolling area was formed as the Mississippi River deposited alluvial soil during flood cycles.

Over 80% of the soils within the proposal are classified as poorly drained. These soils are subject to flooding annually and are waterlogged in lower areas for long periods. Natural flooding usually occurs in the Spring. Because of the flooding hazard, the row crop planting season is frequently delayed. However, crops have been successfully grown in all but extremely wet years.

Historically, maximum flooding in the St. Catherine Creek area has occurred in the Spring while minimum water levels are usually experienced in the Fall. In order for this area to be of maximum benefit for wintering waterfowl, water level management is necessary in order to ensure available water during the waterfowl migrations. This can be accomplished through impounding spring water, retaining rainfall, pumping from permanent water, and opportunistic use of Mississippi River backwater flooding.

The 10,500 acre Sibley Unit addition was recently acquired as part of the Refuge boundary. It is an extensively managed complex of agricultural lands, water control structures, bottomland and upland hardwoods, cypress swamps, lakes, and bayous. The complex potentially will fulfill many of the Refuge's development needs for waterfowl and wildlife management as well as enhance the Refuge's water management capabilities and provide ideal wintering habitat for mallards, pintails, blue and green-winged teal, gadwalls, canvasbacks, wigeon, and ringnecked ducks. It also adds a greater diversity of upland river and bottomland habitat for other migratory birds and is an excellent nesting area for wood ducks.

Permanent water bodies within the refuge include the Old St. Catherine Creek, Butler Lake, two major swamps and their associated lakes, Alligator and Gilliard. Butler Lake is the largest permanent water body and contains approximately 400 acres of permanent water.

Primary species of bottomland hardwood timber within the refuge consist of tupelo gum, bald cypress, sycamore, sweet pecan, black willow, nuttal oak, hackberry, cottonwood, sweetgum, and water oak. The upland hardwoods on the bluff consist primarily of white oak, red oak, magnolia, hickory, and beech. Accreted lands along the river are predominantly pure willow stands.

Approximately 500 acres of cleared land not in cultivation have reverted to outstanding moist soil plant production areas with wild millets being the primary plant species. Smartweeds, foxtail, signal grass, and sedges are also very common plants and form the dominant non-agricultural plant composition.

Agricultural crops currently being grown are soybeans and winter wheat. Cotton has not been grown since 1970. Currently 2,656 acres, in the Conservation Reserve Program, have been planted with oak acorns. Success has not been determined, but through preliminary investigations by Fish and Wildlife Service Foresters, the planting success is probably very low.

The refuge is a backwater wetland complex lying at the base of the alluvial escarpment and consisting of four distinct topographic features: batture, natural levees, ridges and swales, and basins and flats. Approximately 35% percent of the area is cleared land, 30% is woods or swamps, 20% is open water, and 15% is Accreted land. The batture, a flat, low area between the natural levees and the Mississippi River, consists of sandbars and old river scars in various stages of oxbow lake development. Land has been rapidly accreting in this area and over 1,000 acres have been added to adjacent landowners over the last 15 years.

The natural levees parallel the river and are formed by the heaviest sediments which are the first to settle as the river periodically rises and inundates the floodplain. Due to the rich soil and higher elevations, these areas were generally the first to be cleared and farmed as land clearing advanced into the floodplain. Historically, the natural levees supported mixed hardwoods. Within the refuge, most of the natural levees are in agricultural production (soybeans and wheat) or set aside programs. Ridges and swales are the remnant landforms resulting from historic meanders of the river.

Due to a system of ditches and water control structures, some of this area is being farmed, other areas still support bottomland hardwoods, and still other areas, previously cleared, are reverting to natural moist soil vegetation. Basins and flats consist of swamp areas, generally occupying

low elevations near the escarpment or bluff line. Other depressional areas occur along Old St. Catherine Creek and spread out across the floodplain. As river flooding stages continue to increase above the natural levee elevations, overland flows commence and fill depressional swales.

A well developed system of ditches and control structures are in place over most of the refuge. These structures were designed primarily to take water off the cleared land in the Spring; however, they can also be operated to hold water on the property during waterfowl wintering season. There are a number of natural springs originating in the adjacent hills. A major ditch has been constructed to divert sediment laden flows from Old St. Catherine Creek around Butler Lake. Construction of this ditch was never completed to be totally functional.

Several times, since passage of the Flood Control Act of 1928, the Corps of Engineers has conducted studies to determine the feasibility of providing flood control to lands south of Natchez on the Mississippi River east bank. A recent study, done by the Corp in 1986, proposed construction of a 12.4 mile ring levee and installation of a 300 CFS pump with appurtenant channels. The Service concluded that as proposed the project would result in the loss of increasingly scarce Mississippi River floodplain habitat, a resource that has already been reduced throughout the Lower Mississippi Valley to critical levels.

Subsequently, the Corps redesigned this project to include only a 3.7 mile ring levee north of the proposed refuge boundary for a planned port expansion for Natchez. The Service has no objection to the project as now proposed.

A preliminary contaminant survey of the refuge was conducted by the Service. The investigation consisted of interviews with State and Federal agencies, a review of pertinent reports and data, and a cursory reconnaissance of the acquisition area. There were no samples collected or chemical analyses conducted.

The principal contaminant concerns relate to oil production and past agricultural practices. There are several oil fields on the refuge. Oil spills and brine discharges to surface, as well as ground waters, are potential problems. The Environmental Protection Agency has been contacted to conduct a Spill Prevention Control and Countermeasure inspection of the area. Based on current and recent agricultural practices, pesticides should not be of particular concern.

The St. Catherine Creek area has historically wintered large concentrations of ducks and, with the recent increase in winter wheat production, limited numbers of geese. Mallards, pintails, and other dabblers utilize the basins, flats, and depressional swales filled with shallow water from winter rains or backwater flooding. Wood ducks are found primarily in the cypress swamps and the permanent water areas contain good concentrations of ring-neck and scaup.

The St. Catherine Creek area is significant to wintering waterfowl due to: (1.) geographic location in the Mississippi Flyway, (2.) habitat diversity, and (3.) seasonal flooding. At present no other Federal or State waterfowl refuge is located along the Mississippi River south of Yazoo National Wildlife Refuge within the State of Mississippi, a distance of about 120 miles.

Other game birds include doves which can be observed in great abundance feeding along roadsides, in grain fields, or perched along electric lines. Quail are also common in the fallow fields and woodcock are a regular winter resident.

Raptors frequent the fallow fields in search of rodents. Bald eagles, attracted by natural mortality of the waterfowl concentrations, winter in this area. Wading birds are abundant and species regularly observed include green-backed herons, cattle egrets, snowy egrets, great egrets, little blue herons, great blue herons, anhingas, white ibis, glossy ibis, and Louisiana herons. Endangered species likely to occur on the proposal area are wintering bald eagles, wood storks, and occasionally migrating peregrine falcons.

Thousands of shore birds utilize both the permanent water and the hundreds of acres of converted wetlands, most of which have now reverted to moist soil vegetation. The bottomland hardwood forests serve as both permanent homes and migration habitat for many species of passerine birds.

Big game species include deer and turkey. Deer are abundant and several clubs have had most of the area leased for deer hunting.

Small game and fur-bearers are prevalent. Squirrel and rabbit are very common on the project area as are coyote, beaver, otter, mink, nutria, raccoon, gray fox, red fox, bobcat, and opossum.

## IV. ENVIRONMENTAL CONSEQUENCES

This section addresses the environmental impacts of the proposed action. Impacts, both beneficial and adverse, are inherent in any hunting program. Adverse impacts associated

with hunting on St. Catherine Creek NWR include: disturbance of other wildlife, killing of non-target animals due to malicious or illegal hunting activities, and damage to refuge physical developments such as roads and levees, due to hunter use during wet weather periods. These adverse impacts are at present minimal and relatively easy to control with appropriate Federal law enforcement measures. Therefore, these adverse effects will not be addressed separately in the discussion of each alternative.

Beneficial impacts include providing opportunity for recreational use of a renewable resource. By Service policy this is recognized as an acceptable, appropriate use as long as this use does not conflict with other refuge objectives, aids in meeting the established refuge objective, aids in meeting the established refuge objective for public use, and serves as a biological management tool in maintaining optimum population levels for some species. These beneficial impacts of a particular alternative will not be addressed unless the effects are considered significant. A Section 7 endangered species evaluation has been completed and resulted in a "will not effect" conclusion for the hunting seasons proposed under the preferred alternative. All refuge hunts will continuously be monitored to identify potential impacts to listed species.

A. Proposed Action (Preferred Alternative)

1. Waterfowl:

Population levels of waterfowl species are generally good to excellent. The hunting removal rates occurring under the proposal will not affect overall status of these species.

Annual turnover rates for waterfowl including ducks, mergansers, and coot are generally very high due to natural mortality. As a result, normal hunting does not affect the annual breeding population. However, the actual removal of waterfowl during the proposed hunts constitutes an irretrievable commitment on parts of the existing population.

Implementation of the preferred alternative concurs with the overall goals and wildlife management objectives established for St. Catherine Creek NWR.

B. No Action Alternative

Beneficial impacts of this alternative include the elimination or reduction in the disturbance to target and non-target species, reduction in the incidental killing

of non-target species, and meeting the needs of that sector of the public opposed to killing animals. Greater protection to endangered species would result from this alternative. Also, there would be little impact upon population levels of most ducks.

## V. CONSULTATION AND COORDINATION WITH OTHERS

Numerous contacts were made throughout the areas of the refuge soliciting comments, views, and ideas into the development of the accompanying hunting plan. The Mississippi Department of Wildlife, Fisheries, and Parks concurs and fully supports the regulated consumptive public use of the natural resources associated with the St. Catherine Creek NWR.

The Fish and Wildlife Service also provided an in-depth review by the Regional Office personnel and staff biologist.

# ST. CATHERINE CREEK NATIONAL WILDLIFE REFUGE

## REFUGE OBJECTIVES

1. To provide and maintain optimum habitat for migratory waterfowl consistent with the overall objectives of the Mississippi flyway.

2. To provide habitat and protection for endangered species including the Peregrine Falcon and Bald Eagle.

3. To provide habitat for a natural diversity of wildlife and plant species.

4. To provide opportunities for wildlife-oriented recreation and environmental education when compatible with other refuge objectives.

**FINDINGS OF NO SIGNIFICANT IMPACT**

**FOR**

**OPENING WATERFOWL HUNTING**

**ON**

# ST. CATHERINE CREEK NWR

I have determined that the proposed opening of migratory game bird hunting on the St. Catherine Creek National Wildlife Refuge will not have a significant effect on the human environment within the meaning of Section 102 (2) (c) of the National Environmental Policy Act of 1969. Accordingly, an Environmental Impact Statement will not be prepared.

This determination is based on the following reasons:

1. This proposal is compatible with general Service policy regarding the establishment of hunting on a National Wildlife Refuge.

2. This proposal is compatible with the purposes for which the St. Catherine Creek National Wildlife Refuge was established.

3. This proposal does not initiate widespread controversy or litigation.

4. There are no conflicts with local, Regional, State, or Federal plans or policies.

Supporting Reference:

1. Environmental Assessment (attached)

2. Section 7 Endangered Species Evaluation (attached)

3. Migratory Game Bird Hunting Plan (attached)

4. Refuge Objectives (Attachment 1)

_____
Date

MaParker
for Regional Director

**Amendment to the Sport Hunting**

**Decision Document Package for**

# ST. CATHERINE CREEK NWR

**Contents**

3. Section 7 Evaluation

## SECTION 7 EVALUATION

**REGION:** 4

**LOCATION (ATTACH MAP):**

St. Catherine Creek National Wildlife Refuge, Adams County, Mississippi

**LISTED SPECIES OR CRITICAL HABITAT CONSIDERED:**

Peregrine Falcon, Bald Eagle

**NAME AND DESCRIPTION OF ACTION:**

The proposed action would open the St. Catherine Creek NWR to migratory game bird hunting. It would be in accordance with Mississippi Department of Wildlife, Fisheries, and Parks regulations, 50CFR, and special refuge regulations.

**OBJECTIVES OF THE ACTION:**

To provide migratory game bird hunting as one more hunting opportunity on St. Catherine Creek NWR. Migratory game bird hunting is an acceptable, traditional form of wildlife-oriented recreation and is compatible with the purposes for which the refuge was established.

**EXPLANATION OF IMPACT OF ACTION OF LISTED SPECIES OR CRITICAL HABITAT:**

Proposed action will not affect listed species.

**RECOMMENDATION TO AVOID ANY IMPACTS:**

In order to avoid any future impacts on the above listed species, each acquired tract will be monitored for endangered species use, and regulations or closures will be used to protect endangered species from impacts.

## SECTION 7 EVALUATION

**PROJECT LEADER:** Thomas F. Bruso DATE 1-15-97

COMMENTS:

WILL NOT AFFECT: X MAY AFFECT _____

**ENDANGERED SPECIES SUPERVISOR:** Alan J. Mueller DATE 1/23/97

COMMENTS:

WILL NOT AFFECT: X MAY AFFECT _____

**ARD-**____ _____ DATE _____

COMMENTS:

WILL NOT AFFECT: _____ MAY AFFECT _____

**ARD-FA:** _____ DATE _____

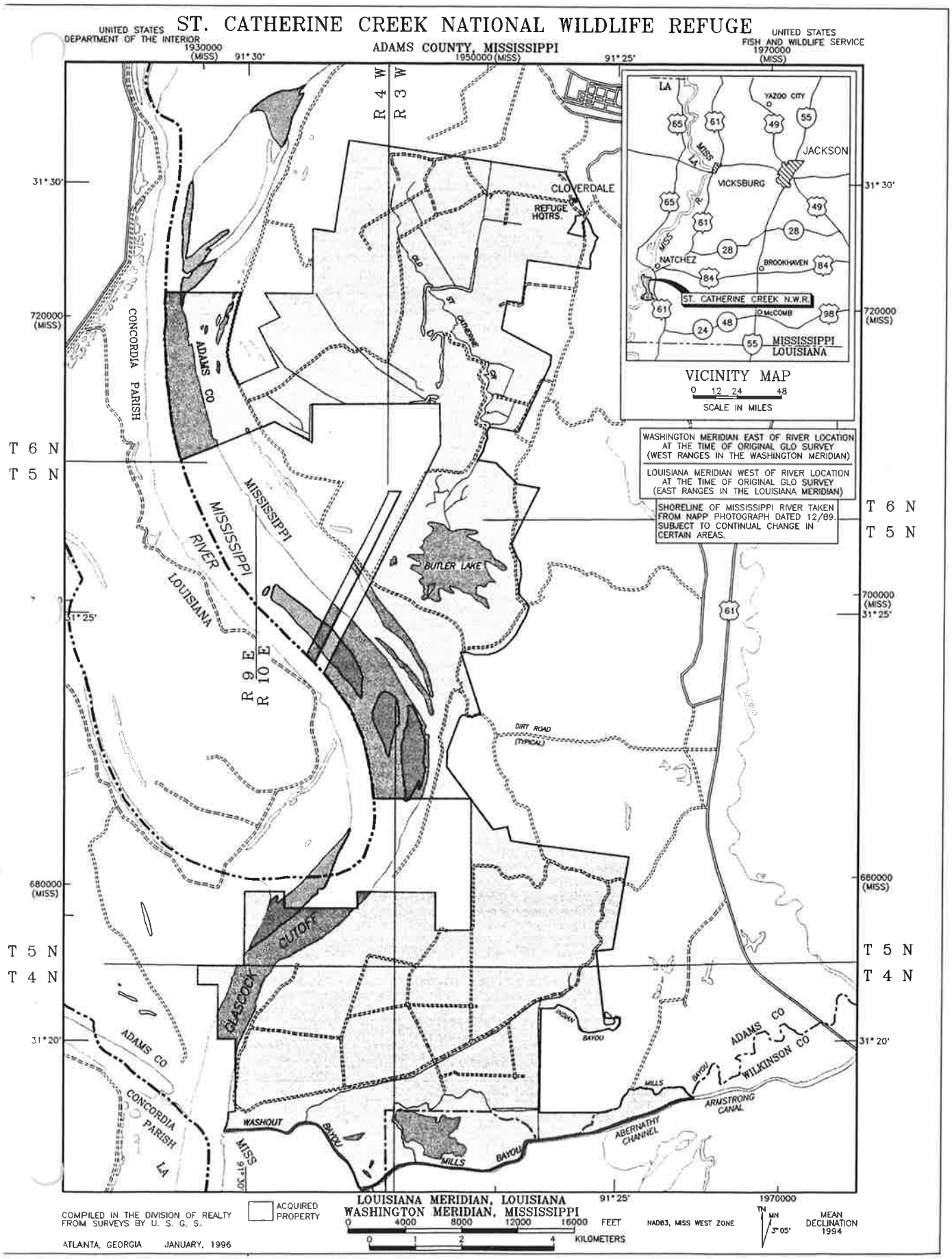
COMMENTS:

WILL NOT AFFECT: _____ MAY AFFECT _____

**REGIONAL DIRECTOR:** _____ DATE _____

COMMENTS:

WILL NOT AFFECT: _____ MAY AFFECT _____


ST. CATHERINE CREEK NATIONAL WILDLIFE REFUGE
ADAMS COUNTY, MISSISSIPPI
UNITED STATES DEPARTMENT OF THE INTERIOR
UNITED STATES FISH AND WILDLIFE SERVICE
1930000 (MISS)
1950000 (MISS)
1970000 (MISS)
91° 30'
91° 25'
31° 30'
31° 25'
31° 20'
720000 (MISS)
700000 (MISS)
680000 (MISS)
R 4 W
R 3 W
R 9 E
R 10 E
T 6 N
T 5 N
T 4 N
CONCORDIA PARISH
ADAMS CO
MISSISSIPPI RIVER
MISSISSIPPI
LOUISIANA
CLOVERDALE
REFUGE HQTRS.
OLD ST. CATHERINE
BUTLER LAKE
DIRT ROAD (TYPICAL)
GLASCOCK CUTOFF
WASHOUT BAYOU
MILLS BAYOU
ABERNATHY CHANNEL
ARMSTRONG CANAL
WILKINSON CO
LA
MISS
YAZOO CITY
JACKSON
VICKSBURG
NATCHEZ
BROOKHAVEN
McCOMB
ST. CATHERINE CREEK N.W.R.
MISSISSIPPI
LOUISIANA
VICINITY MAP
0 12 24 48
SCALE IN MILES
WASHINGTON MERIDIAN EAST OF RIVER LOCATION AT THE TIME OF ORIGINAL GLO SURVEY (WEST RANGES IN THE WASHINGTON MERIDIAN)
LOUISIANA MERIDIAN WEST OF RIVER LOCATION AT THE TIME OF ORIGINAL GLO SURVEY (EAST RANGES IN THE LOUISIANA MERIDIAN)
SHORELINE OF MISSISSIPPI RIVER TAKEN FROM NAPP PHOTOGRAPH DATED 12/89. SUBJECT TO CONTINUAL CHANGE IN CERTAIN AREAS.
COMPILED IN THE DIVISION OF REALTY FROM SURVEYS BY U. S. G. S.
ATLANTA, GEORGIA JANUARY, 1996
ACQUIRED PROPERTY
LOUISIANA MERIDIAN, LOUISIANA
WASHINGTON MERIDIAN, MISSISSIPPI
0 4000 8000 12000 16000 FEET
0 1 2 4 KILOMETERS
NAD83, MISS WEST ZONE
TN MN 3° 05'
MEAN DECLINATION 1994

**Amendment to the Sport Hunting**

**Decision Document Package for**

# ST. CATHERINE CREEK NWR

**Contents**

4. Compatibility Statement

## COMPATIBILITY DETERMINATION

**Station Name:** St. Catherine Creek National Wildlife Refuge

**Date Established:** January 16, 1990

**Establishing and Acquisition Authorities:**

The St. Catherine Creek National Wildlife Refuge located in Adams County, Mississippi was established under the Authority of the Migratory Bird Conservation Act.

**Purpose(s) for which Established:**

For lands acquired under the Migratory Bird Conservation Act, 16 U.S.C. § 715 - 715r, as amended, the purpose of the acquisition is "... for uses as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. § 715d (Migratory Bird Conservation Act)

**Refuge Objectives:**

To provide and maintain optimum habitat for migratory waterfowl consistent with the overall objectives of the Mississippi Flyway.

To provide habitat and protection for endangered species including the Peregrine Falcon and Bald Eagle.

To provide habitat for a natural diversity of wildlife and plant species.

To provide opportunities for wildlife oriented recreation and environmental education when compatible with other refuge objectives.

Attachment 1: Goals of the National Wildlife Refuge System.

**Applicable Laws, Regulations, and Policies:**

1. Migratory Bird Hunting Stamp Act of 1934 (16 U.S.C. 718-0178h; 48 State. 451).

2. Refuge Trespass Act of June 25, 1948 (18 U.S. C. 41; 62 Stat. 686).

3. National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd, 668ee).

4. Refuge Recreation Act of 1962 (16 U.S.C. 460K-460k-4).

5. Additional refuge-specific regulations as published.

**NEPA Compliance (attach Environmental Action Memorandum):**

Categorical Exclusion ____

Environmental Assessment _X_

Environmental Impact Statement ____

FONSI _X_

**Determination (check one):**

This use is compatible _X_ This use is not compatible ____

**Stipulations Necessary to Ensure Compatibility:**

To ensure compatibility, time and hour restrictions will be implemented.

**Justification:**

Migratory game bird hunting is compatible with the objectives of the refuge and provides recreational opportunities and consumption public use of a renewable resource.

Project Leader: Thomas J. Russo

Reviewed By: _____



FEB- 7-97 FRI 8:38 AM U S FISH & WILDLIFE SERV FAX NO. 601 445 0182 P. 5

## "Goals of the National Wildlife System"

To preserve, restore, and enhance in their natural ecosystems (when practicable) all species of animals and plants that are endangered or threatened with becoming endangered.

To perpetuate the migratory bird resource.

To preserve a natural diversity and abundance of fauna and flora on refuge lands.

To provide an understanding and appreciation of fish and wildlife ecology and man's role in his environment, and to provide refuge visitors with high quality, safe, wholesome, and enjoyable recreational experiences oriented toward wildlife to the extent these activities are compatible with the purpose for which the refuge was established.

**Attachment 1**

**Amendment to the Sport Hunting**

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5. Recreation Act Funding Analysis Form

## RECREATION ACT FUNDING ANALYSIS FORM

**Station Name:** St. Catherine Creek National Wildlife Refuge

**Date Established:** 1990

**Purposes for which the Refuge was Established:**

"... for uses as an inviolate sanctuary, or for any other management purpose, for migratory birds."

**Recreational Use Evaluated:**

Recreational migratory game bird hunting on the St. Catherine Creek National Wildlife Refuge

**Funding required to administer and manage the recreational use:**

| | |
|---|---|
| Administration and hunting permit printing | 3 K |
| Law Enforcement activities to provide resource and visitor protection | 10 K |
| Physical facilities maintenance | 10 K |

Based on a review of the refuge budget allocated for recreational use management, I certify that funding is adequate to ensure compatibility and to administer and manage this recreational use.

Project Leader: Thomas F. Prusa 1-15-97
(Signature, Title, Date)

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6. Letter of Concurrence

**MISSISSIPPI**
**DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS**

**SAM POLLES, Ph.D.**
**Executive Director**

October 23, 1996

Mr. Tom Prusa
Refuge Manager
St. Catherine Creek National Wildlife Refuge
26 Bourke Road
Post Office Box 18639
Natchez, Mississippi 39122

Dear Mr. Prusa:

My office has received many inquiries concerning waterfowl hunting at St. Catherine Creek Refuge. Staff informs me that you have not scheduled a waterfowl season for 1996-97. The St. Catherine area has provided many wonderful opportunities for many years not only for hunting but wintering habitat for waterfowl, wading, and shorebirds.

The Department of Wildlife, Fisheries, and Parks (MDWFP) supported acquiring these lands for public hunting opportunities in southwest Mississippi especially for waterfowl hunting. The Fish and Wildlife Service has a wonderful opportunity to involve both waterfowl hunters and other hunters in a time honored tradition that is so much a part of the Mississippi outdoor experience.

Your efforts to accommodate handicapped sportsmen are to be commended. If any of my staff can assist you in establishing a waterfowl hunt for the 1997-98 season, please advise my office in Jackson or the Brookhaven District office, District Administrator, Ms. Kathy Harris.

Good luck with your 1996-97 hunting season.

Sincerely,

Sam Polles, Ph.D.
Executive Director

pc: Ms. Noreen Clough
Regional Director

**STATE OF MISSISSIPPI**
**Department of Wildlife,**
**Fisheries and Parks**

**RAY MABUS**
Governor

October 8, 1991

Tom Prusa, Refuge Manager
U S Fish and Wildlife Service
P O Box 18639
Natchez, MS 39122

Dear Mr. Prusa:

The Mississippi Department of Wildlife, Fisheries and Parks fully supports the opening of St. Catherine Creek National Wildlife Refuge to sport hunting. We feel very strongly that hunting and trapping are very important wildlife management tools. Using these tools as a part of your wildlife management program allows access to the refuge lands by the sportsmen who provided funding for their acquisition. We look forward toward working with you and having input into any hunt management practices that you may implement. Again, we strongly support public hunting opportunity on St. Catherine Creek NWR.

Sincerely,

Jack Herring
Executive Director

cc: Jim Pulliam



P. O. Box 451, Jackson, MS 39205-0451, (601) 362-9212

November 1, 1996

Sam Polles
Executive Director
Mississippi Department of Wildlife
Fisheries, and Parks
P O Box 459
Jackson, MS 39205-0451

Dear Dr. Polles:

Thank you for your letter dated October 23, 1996 concerning the opening of the Refuge to waterfowl hunting. As you are aware, the St. Catherine Creek National Wildlife Refuge has opened an additional 10,500 acres up for public hunting during the 1996-1997 season.

We have begun the planning process to open the Refuge up for waterfowl hunting during the 1997-1998 hunting season. Now that we have the Sibley Unit completely under our control, which took place on May 2, 1996, the ability to conduct a waterfowl hunt on this Refuge has become much more practical.

Therefore, we will do what needs to be done to open a portion of the Refuge to waterfowl hunting next season. Thank you for your continued support and the offer to assist us in the establishment of a waterfowl hunt on the St. Catherine Creek National Wildlife Refuge.

Sincerely,

Tom

Thomas F. Prusa
Refuge Manager

TFP/lab

cc: Noreen Clough, Regional Director, Atlanta, GA
Columbus Brown, GARD, Atlanta, GA
James Burnett, Acting District Manager, Atlanta, GA
Ray Aycock, Habitat Management Biologist, Jackson, MS

**Amendment to the Sport Hunting**

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**7. Refuge-Specific Regulations**

## REFUGE SPECIFIC REGULATIONS

50 CFR Part 32

32.43 Refuge-specific regulations; hunting of migratory game birds waterfowl (ducks, coots, geese)

(v) Mississippi
( ) St. Catherine Creek National Wildlife Refuge. Migratory game bird is permitted on designated areas of the refuge subject to the following conditions:

(i) Permits are required.
(ii) Hunting of geese, ducks, and coots is permitted on designated areas on designated days.