

**Atchafalaya National Wildlife Refuge
Recreational Hunting Plan**

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**U.S. Fish and Wildlife Service
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RECREATIONAL HUNTING PLAN

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ATCHAFALAYA NATIONAL WILDLIFE REFUGE RECREATIONAL HUNTING PLAN

I. INTRODUCTION

Atchafalaya National Wildlife Refuge (Refuge) is located in the lower Atchafalaya Basin Floodway System in St. Martin and Iberville Parishes, Louisiana (Figure 1). The name originated from its location within the Atchafalaya River Basin. The Refuge is bounded on the north by U.S. Highway 190, on the south by Interstate 10, on the west by the Atchafalaya River, and on the east by the East Atchafalaya Basin Protection Levee (Figure 2). It is located about 30 miles west of Baton Rouge, Louisiana and one mile east of Krotz Springs, Louisiana. The Refuge is part of the Southeast Louisiana National Wildlife Refuges Complex.

The Refuge was established on October 26, 1984, in accordance with Public Law-98-548. The current acreage of the Refuge is approximately 15,220 acres. The Refuge is adjacent to the state's Sherburne Wildlife Management Area (WMA). Public use on Refuge lands is managed by the Louisiana Department of Wildlife and Fisheries (LDWF) consistent with specific language in the authorizing legislation under a cooperative agreement and by approval from the Refuge. The cooperative agreement states that the State shall provide oversight and management of all natural resources within the Refuge that are compatible with the reason for Refuge establishment while adapting management goals, objectives, and principles set forth in the Refuge Manual. All changes to hunting will be placed in the Federal Register after complying with the National Environmental Policy Act. Refuge purposes include: 1) providing for conservation and management of all fish and wildlife within the Refuge, 2) fulfilling the international treaty obligations of the United States with respect to fish and wildlife, and 3) providing opportunities for scientific research, environmental education, and fish and wildlife oriented recreation, including hunting, fishing, birdwatching, nature photography, and others. Access is provided through bayous and a network of gravel roads and trails through the Refuge.

The Refuge is encompassed within nearly one-half million acres of hardwood swamps, lakes and bayous known as the Atchafalaya River Basin (Basin). The natural floodplain of the Atchafalaya River flows for 140 miles south from its junction with the Mississippi River to the Gulf of Mexico. The Basin's dense bottomland hardwoods, cypress-tupelo swamps, overflow lakes, and meandering bayous provide a tremendous diversity of habitat for more than 200 species of resident and migratory birds and numerous other wildlife and the area has been recognized as an Internationally Important Bird Area. The Basin's wooded wetlands also provide vital nesting habitat for wood ducks, and support the nation's largest wintering concentration of American woodcock. Eagles, ospreys, swallow-tailed kites, and Mississippi kites are occasionally seen. Wild turkeys, white-tailed deer, gray and fox squirrels, eastern cottontail, swamp rabbit, gray and red fox, coyote, striped skunk, and opossum inhabit the Refuge, as do a small population of Louisiana black bears. Furbearers found in this great swamp include raccoon, mink, bobcat, nutria, muskrat, river otter, and beaver (USFWS 2008).

The upper reaches of the Basin offer a great diversity of wildlife habitat that can be broadly classified as mid- to late-successional bottomland hardwood forests, cypress forests mixed with bottomland hardwoods, open water, and agricultural lands (Figure 3). Bottomland hardwoods are forested, alluvial wetlands occupying broad floodplain areas flanking large river systems (Atchafalaya/Mississippi Rivers) and are maintained by a natural hydrologic regime of alternating wet and dry periods that tend to follow seasonal flooding events; and, are the primary habitat of the Refuge.

The bottomland hardwood forests in the area of the Refuge have four dominant tree species associations: sugarberry—American elm—green ash; sycamore—sweetgum—American elm; black willow; and baldcypress. Hybrid forest types created based on vegetation present and man-made changes in hydrology are baldcypress-green ash and baldcypress-black willow. Tree species within this bottomland hardwood forest vary according to the wetness of the specific site. Common tree species on the higher, well-drained sites include red oak, sugarberry, sweet gum, and elm. The wetter, lower sites contain predominantly cypress, willow, and ash. Other common species found in association within these forest types include red maple, cottonwood, sycamore, honey locust, box elder, and bitter pecan. Approximately 12 percent of the Refuge is inundated open water, with isolated cypress trees and willow stands (USFWS 2006). Except for the lowest swampy areas in the Bayou Des Glaises area, merchantable timber stands exist throughout most of the Refuge, covering approximately 14,455 of the total 15,220 acres.

Midstory species encompass seedlings of dominant species along with boxelder, maple, red mulberry, and rough-leaf dogwood. Ground cover is sparse, in areas, due to shading and prolonged inundation. In those areas where habitat improvement, through the practice of forest management, has taken place, the ground cover is very dense and provides excellent habitat for many game and non-game wildlife species. Common groundcover species found include rattan vine, greenbrier, blackberry, trumpet creeper, Virginia creeper, poison ivy, and milkweed. Much of the area supports lush stands of fern (USFWS 2008).

Buttonbush and water-elm are common mid-story species on wet sites, while rough-leaf dogwood is common on drier sites. Common understory plants on wet sites include lizard's tail, smartweed, water hyacinth, frog's bit, American lotus, *Bidens* sp., and cattail. Alligator weed and duckweed are prevalent in some areas.

The Refuge, LDWF lands (11,780 acres), and U.S. Army Corps of Engineers (COE) lands (17,000 acres) combine to form a 44,000 acre tract within the Basin (Figure 4). These lands are collectively known as the Sherburne Complex (Complex). LDWF assists with managing habitat and provides public use on Refuge and COE lands. Development and management have improved access, habitat, wildlife populations, and public use on these lands. Forest tree planting, thinning, and selective vegetation removal are forestry management techniques utilized to improve wildlife habitat for species such as the Louisiana black bear and neotropical migrant birds. Mature forests are also being preserved and created for species which require this habitat.

Greentree reservoirs and other seasonally flooded impoundments exist for the benefit of migratory waterfowl. Agricultural fields have been converted to native hardwood forests for both waterfowl and upland wildlife. A large increase in the production of wood ducks and hooded mergansers is being achieved through the use of artificial nest structures. Public hunting is allowed on the Refuge for migratory waterfowl and upland and big game species. All seasons, rules, and regulations, conform to those of the Sherburne WMA when possible.

Figure 1. Location of Atchafalaya National Wildlife Refuge.



Figure 2. Atchafalaya National Wildlife Refuge Boundary

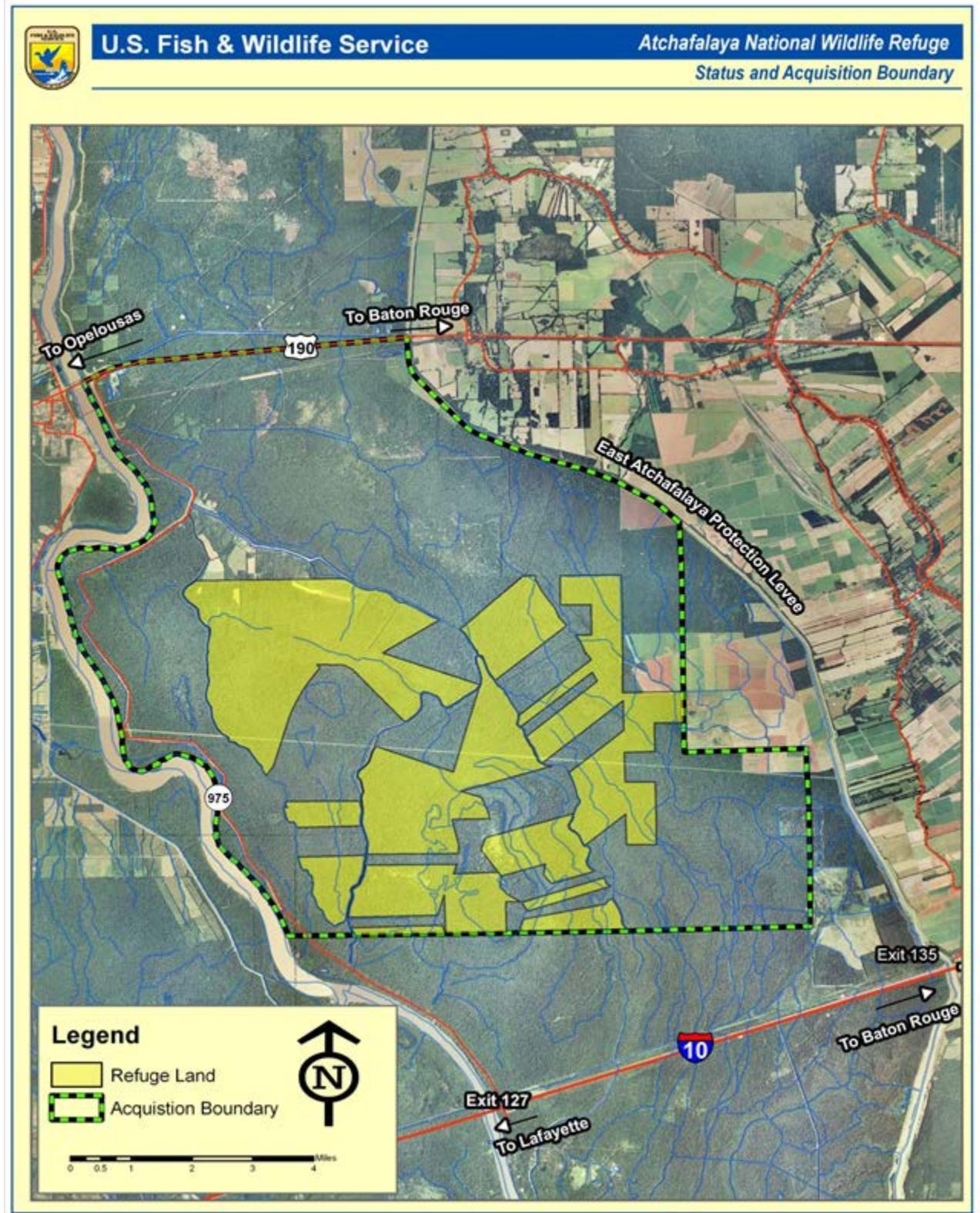


Figure 3. General habitat types on Atchafalaya National Wildlife Refuge.

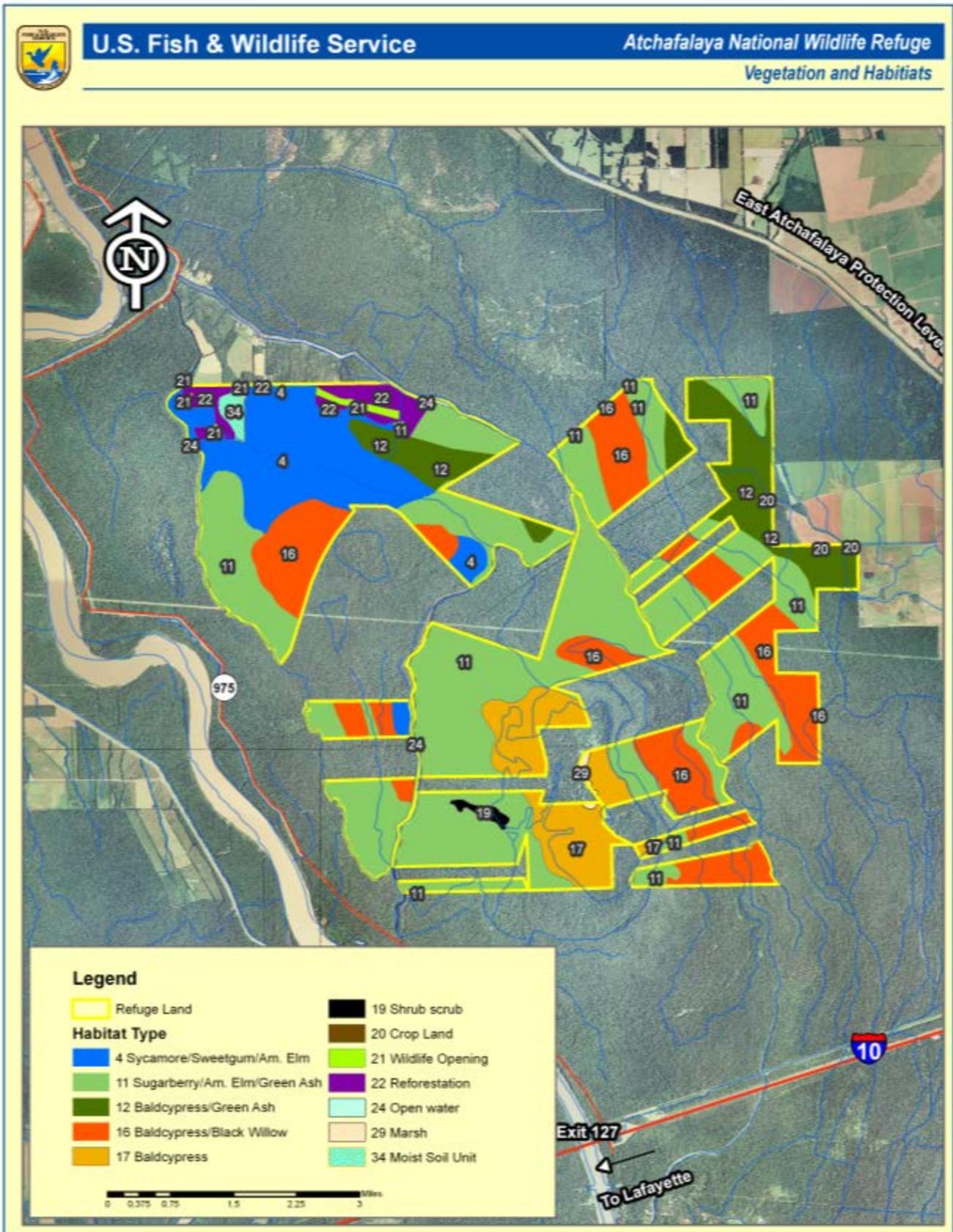
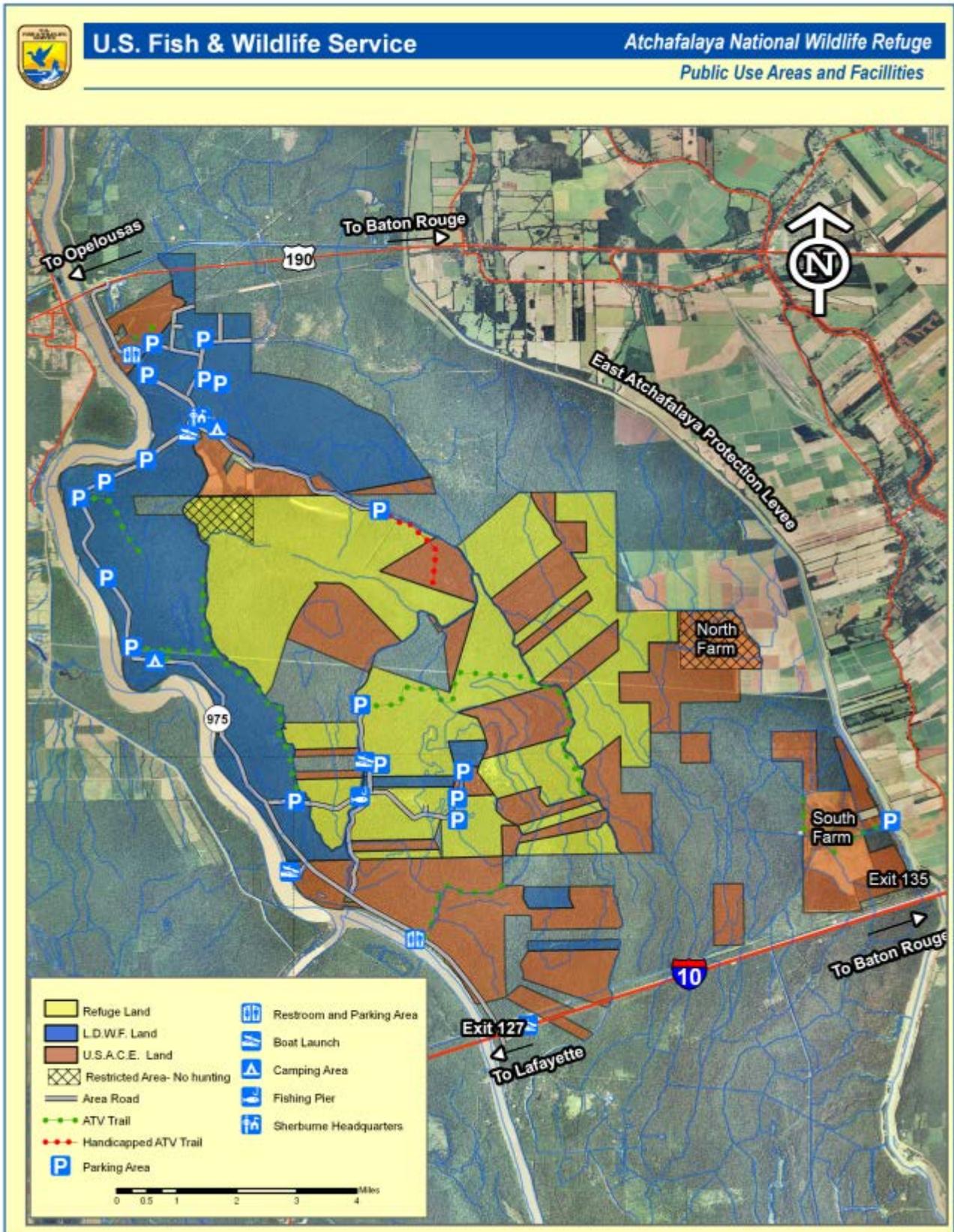


Figure 4. Sherburne Complex



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. 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, operation, and maintenance of the permitted forms of recreation.

Fundamental to the management of lands within the National Wildlife Refuge System is the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), an amendment to the National Wildlife Refuge System Administration Act of 1966. The National Wildlife Refuge System Improvement Act of 1997 provided a mission for the National Wildlife Refuge System and clear standards for its management, use, planning, and growth. The National Wildlife Refuge System Improvement Act of 1997 recognized that wildlife-dependent recreational uses involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation, when determined to be compatible with the mission of the National Wildlife Refuge System and purposes of the refuge, are legitimate and appropriate public uses. Compatible wildlife-dependent recreational uses are the priority general public uses of the National Wildlife Refuge System and shall receive priority consideration in planning and management. Hunting as specified in this plan is a wildlife-dependent recreational use and the law states that as such, it “shall receive priority consideration in national wildlife refuge planning and management.” The Secretary of Interior may permit hunting on a refuge if it is determined that the use is compatible. The hunting program would not materially interfere with or detract from the fulfillment of the purposes of the Refuge or the mission of the National Wildlife Refuge System.

As part of this document, a compatibility determination was performed (Appendix A). Hunting seasons and bag limits are based on sound biological principles and user time and space restrictions are employed to minimize wildlife disturbance, hunting is deemed compatible and a worthwhile recreational opportunity to provide the public.

The mission of the Fish and Wildlife Service is:

“...working with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people.”

In addition to the overall mission of the Service, the National Wildlife Refuge System also has its own mission as set forth by congress in the National Wildlife Refuge System Improvement Act of 1997. It is as follows:

“...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

III. STATEMENT OF OBJECTIVES

On October 26, 1984, Congress authorized the establishment of the Refuge (Public Law 98-548) to include the following purposes:

- (1) To provide for the conservation and management of fish and wildlife within the Refuge;
- (2) To fulfill the international treaty obligations of the United States with respect to fish and wildlife; and
- (3) To provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation, including hunting, fishing, and trapping, bird watching, nature photography, and others.

Additionally, the earlier Fish and Wildlife Act of 1956, authorized the establishment of national wildlife refuges "for the development, advancement, management, conservation, and protection of fish and wildlife resources" [16 U.S.C. 742f (a) (4)] and "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)].

The Refuge's Comprehensive Conservation Plan (CCP) laid out the following vision:

The Atchafalaya Basin is the nation's largest complex of forested wetlands, composed of seasonally flooded hardwood swamps, lakes, and bayous. In the heart of the Basin, the Refuge will be managed for the conservation of native systems of lands and waters to provide quality habitat for migratory birds, other wildlife, fisheries, and plants for the benefit and enjoyment of present and future generations. The cooperative agency management of wildlife and habitat on the Refuge is an active, science-driven, comprehensive endeavor that includes research projects to meet information needs of the Refuge, and that aims to conserve the natural health and beauty of the land. When compatible, wildlife-dependent recreational opportunities for hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation will be provided so that visitors are able to experience the uniqueness of this national treasure (USFWS 2013).

The objectives for the Refuge hunt program are:

1. To provide opportunities for high quality hunting experiences on current and future refuge lands;
2. To maintain the deer populations at levels compatible with habitat carrying capacities;
3. To allow compatible public use of a valuable renewable resource on current and future refuge lands; and
4. To reduce feral hog populations.

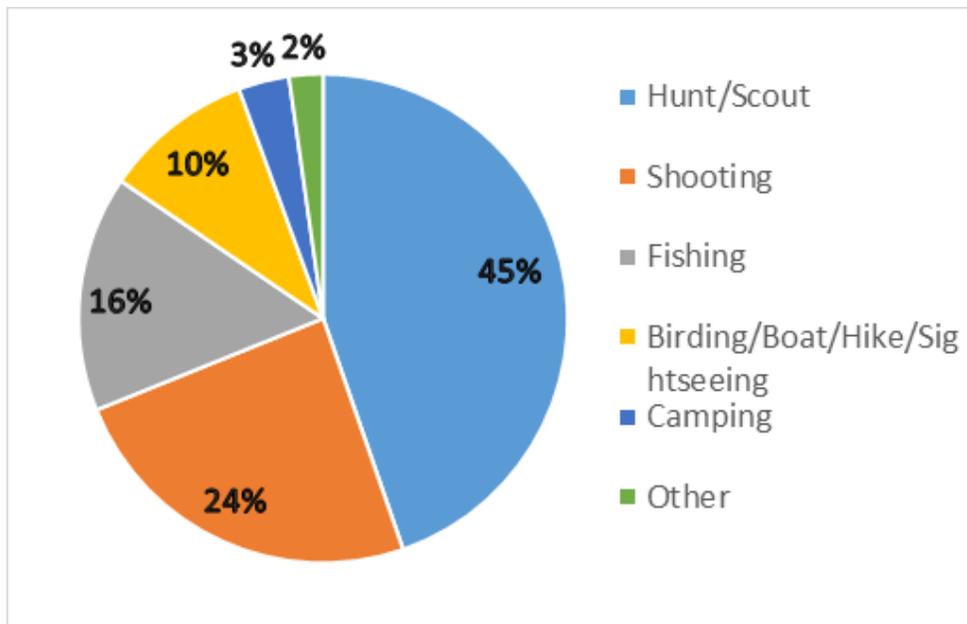
IV. ASSESSMENT

This section assesses the viability of species populations and other conditions under which the hunt program is designed. The Environmental Assessment compares the options to: 1) continue existing hunt programs (Alternative A) or 2) expand hunt programs by offering new hunting opportunities (Alternative B). It assesses the environmental, social and other effects of the proposed action to update the Refuge Hunt Plan and assesses whether or not to adopt this plan and its associated Compatibility Determination. Please refer to the Environmental Assessment for additional information.

The Improvement Act and Executive Order 12996 emphasize the importance of providing compatible wildlife-dependent educational and recreational opportunities on national wildlife refuges. A variety of public use opportunities are available on the Refuge including all of the priority wildlife-dependent recreation opportunities as identified in the Improvement Act (hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation). Hunting of migratory game birds, small game and big game, recreational fishing, hiking, bird watching, wildlife observation, wildlife photography, and environmental education are all popular activities among visitors to the Refuge.

Visitor use is not collected specifically for the Refuge, however in 2013, a total of 52,283 visitors participated in various activities on the Sherburne Complex (Figure 5). This was 3,634 more visitors than in 2012. Hunters remain the highest user group with deer being the most popular game animal hunted. Other activities tracked include: fishing, boating, hiking, birding, camping, shooting ranges, trapping, ATV/UTV riding, berry picking and sightseeing (LDWF 2013).

Figure 5. Sherburne Complex Visitor Use 2013



The most recent Recreational Hunt Plan for the Refuge was submitted and approved in 1987 (USFWS 1986). Hunting of migratory game birds, small game and big game has taken place on the Refuge continuously since approval of this plan. This revised Refuge hunting plan is being submitted in order to update the 1987 plan with current compliance documentation to meet legal and policy obligations while adding spring squirrel hunting and incidental take of feral hogs.

Hunting is a popular activity and the Refuge offers hunters the opportunity to hunt squirrel, rabbit, woodcock, mourning dove, waterfowl, white-tailed deer, raccoon, and turkey. The Refuge offers the public a wide range of hunting opportunities for those using archery, primitive firearms, and modern guns, as well as special opportunities for youth and mobility impaired hunters with access available to most portions of the Refuge. Hunts offered include deer (archery, muzzleloader, and gun); turkey (open season and lottery); fox and grey squirrel; rabbit; raccoon; waterfowl, snipe, rail, and gallinules; woodcock and mourning dove. Opportunities for handicapped (e.g., wheelchair bound) hunters are available that include marked all-terrain vehicle (ATV/UTV) trails and deer and waterfowl hunting areas that include wheelchair accessible blinds. In addition, youth hunts are offered for deer (lottery), waterfowl (lottery), and squirrel each year (LDWF 2015-16b.).

Hunting for deer, squirrel, and woodcock is rated as good, while rabbit hunting rated as fair. Waterfowl hunting can be seasonal, depending on many factors, but the opportunities to hunt waterfowl are excellent. Turkey hunting is fair in the bottomland hardwood areas. Development and management have improved access, habitat, wildlife populations, and public use on the Refuge.

Access to the area is via Highway 975, which connects with highway 190 at Krotz Springs on the North, and Interstate-10 at Whiskey Bay on the South. Entrance to the interior of the area is possible through a series of all-weather roads, ATV trails, and Big and Little Alabama Bayous. There is one private boat launch on the northern portion of Big Alabama Bayou, one public launch of the northern portion of Little Alabama Bayou, and one public launch on the Southern portion of Big Alabama Bayou.

Due to the numerous boundaries and multi-ownership, the Refuge follows LDWF hunting and fishing regulations within the Sherburne Complex, whenever possible. This makes it easier from not only a law enforcement standpoint but also to provide the public maximum opportunities. Hunter use data is collected for the Sherburne Complex and not specifically for the Refuge. Table 1 shows visitor-day use for the various hunting seasons from 2011-14.

TABLE 1. SHERBURNE COMPLEX – Visitor-day Use**

	2011-12*	2012-13	2013-14
Deer	4615	6385	7760
Turkey	185	180	180
Waterfowl	3295	2790	1880
Small Game	2490	4860	5230
Woodcock	450	279	425

* Morganza Floodgates opened in summer of 2011 resulting in a lower number of deer, small game and turkey hunters.

**Information obtained from Self-Clearing Permits.

Table 2. SHERBURNE COMPLEX – Harvest Information**

	2011-12*	2012-13	2013-14
Deer	221	326	447
Turkey	13	10	8
Waterfowl	4479	2263	1323
Small Game -Squirrel	966	3999	3541
Rabbit	101	78	116
Woodcock	387	179	367

*Morganza Floodgates opened in summer of 2011 resulting in a lower number of deer, small game and turkey hunters.

**Information obtained from Self-Clearing Permits.

A. Can priority, biological objectives be met and optimal populations of hunted species be sustained with a refuge recreational hunting program?

Big Game

Yes, priority, biological objectives can be met and optimal populations can be sustained with the Refuge’s big game hunting program. The big game species hunted on the Refuge include white-tailed deer and wild turkey.

White-tailed deer (*Odocoileus virginianus*)

Deer hunts have proven to be not only compatible with Refuge objectives, but also to be beneficial in meeting them. Deer harvest is essential to maintain the herd at or below habitat carrying capacity. When deer are overpopulated, the plant composition of the forest is altered due to over-browsing. Overpopulation can also lead to outbreaks of devastating diseases such as Epizootic Hemorrhagic Disease and bluetongue. Overpopulation also leads to increased car-deer collisions and poor overall herd health.

Louisiana initiated its first doe season in 1959 on several game management areas. Current white-tailed deer population nationwide is estimated in excess of 30 million, with Louisiana populations estimated between 750,000 and 1 million individuals.

The reason deer have rebounded so successfully is their ability to live in close proximity to humans in a variety of early successional habitats. In Louisiana, most white-tailed deer breed from September to mid-January, depending on the geographic location within the state. This date of “peak rut” is an important management tool in setting season dates throughout Louisiana. The deer population in Louisiana is estimated to be about 1million. Herds are monitored to ensure the proper numbers of does are harvested to lower this occurrence.

To better manage the deer herd in Louisiana, LDWF has initiated a more liberal harvest of antlerless deer throughout all of the deer hunting season while also lowering the allowable harvest of antlered bucks. The desired results of these management decisions are to bring deer numbers more in line with the carrying capacity of their available habitat and to allow for older bucks to enter the population structure. The deer season in Louisiana extends from mid-September through most of January, making it a recreational activity that people have ample opportunity to enjoy. About 200,000 Louisiana hunters harvest between 130,000 and 150,000 deer each year.

Deer hunting is a popular public use on the Refuge (Table 2) and a variety of opportunities are annually available. These include seasons for modern firearms, primitive weapons, archery, youth, and physically challenged hunts. Physically challenged wheelchair bound hunt opportunities include the two deer box blinds located on the Refuge adjacent to Johnson Bayou and the Parish Line Road. During the 2013-14 season, 447 deer were harvested on the Sherburne Complex.

Figure 6. Deer box blind for physically challenged wheelchair bound hunters



Eastern Wild Turkey (*Meleagris gallopavo silvestris*)

Yes, priority, biological objectives can be met and optimal populations can be sustained with the Refuge’s turkey hunting program.

During the years following World War II, Louisiana’s eastern wild turkey population was at its lowest point. In 1946 it was reported that only 14 isolated flocks totaling less than 1,500 wild turkeys remained throughout the state. Tireless efforts by LDWF biologists and other Department staff to restock wild trapped turkeys resulted in a rebound in Louisiana’s wild turkey population. During this effort, others such as the National Wild Turkey Federation, private landowners, and others provided vital support. Today, wild turkeys are distributed across Louisiana and most suitable habitat is occupied.

Wild turkeys are omnivores with their annual diets consisting of 90% plant and 10% animal matter. Some principal wild foods of turkeys include acorns, beechnuts, fruits of dogwood, grape, black gum, wild cherry, blackberry and huckleberry, vegetative and/or seed heads of grasses, sedges, ferns, greenbriar, beggar’s tick and honeysuckle. Acorns are considered to be the most important, because they are available during the fall and winter when most other foods are scarce. Insects and small vertebrates are also consumed when opportunity arises. All of these food groups are available on the Refuge.

Turkey hunting is only fair in the bottomland hardwood complex on the Refuge, mainly due to flood events effecting turkey nesting. For example, flooding during the spring of 2011 resulted in a complete nest failure and the mortality of many adult turkeys. Water levels averaged 10 feet throughout the Complex for a 5-6 week period. Table 3 is a Turkey Harvest History on the Sherburne Complex.

TABLE 3. TURKEY HARVEST HISTORY

YEAR	# HUNTERS	HARVEST/ HUNTER EFFORT	TOTAL HARVEST	# ADULTS	# JAKES (%)
2013	176	1:18	10	3	7(70)
2012	186	1:14	13	13	0
2011	743	1:10	77	67	10(13)
2010	660	1:19	34	31	3(9)
2009	733	1:20	38	35	1(3)
2008	911	1:12	76	51	25(33)
2007	591	1:6	92	76	16(17)
2006	574	1:10	55	19	36 (66)
2005	693	1:19	37	24	13 (35)
2004	705	1:13	53	41	12 (23)
2003	581	1:12	50	25	25 (50)
2002	698	1:23	31	18	13 (42)
2001	1012	1:23	45	36	9 (20)
2000	775	1:17	54	39	15 (27)
1999	746	1:14	54	31	23 (43)
1998	734	1:18	40	29	11 (28)
1997	739	1:12	60	40	20 (33)
1996	870	1:21	42	38	4 (10)
1995	953	1:8	122	118	4 (3)

Small Game

Yes, priority, biological objectives can be met and optimal populations can be sustained with the Refuge's small game hunting program. Small game, when listed under the Sherburne WMA regulations, includes both resident game animals and game birds as well as migratory species of birds (woodcock, mourning dove, snipe, rails, gallinules). However, small game hunting on the Refuge, based on available habitat, is primarily for squirrels, rabbits, and woodcock although allowed for other species.

Specific population surveys are not conducted for these species; however, LDWF's annual hunter harvest survey provides indices to population trend. The 2010 – 11 statewide survey estimated that 72,500 squirrel hunters harvested 948,100 squirrels and the 2012 – 13 statewide survey estimated that 50,700 squirrel hunters harvested 872,100 squirrels. It is estimated that less than 10 percent of the squirrel population is harvested annually. The visitor-day use figures for small game in Table 1 are a combination of squirrel hunts and rabbit hunts.

Both the gray (*Sciurus carolinensis*) and fox (*Sciurus niger*) squirrel occur throughout the Refuge and both species are popular game with hunters. Specific population surveys are not conducted for these species; however, LDWF's annual hunter harvest survey provides indices to population trends. In the absence of major habitat modifications, year to year fluctuations in squirrel populations are due primarily to the prior year's mast crop and flood events. Table 2 shows squirrel harvest on the Sherburne Complex from 2011-14.

The 2010-11 statewide survey estimated that 36,700 rabbit hunters harvested 272,900 rabbits while the 2012 – 13 statewide survey estimated that 22,100 rabbit hunters harvested 180,100 rabbits. In the absence of major habitat modifications, year to year fluctuations in rabbit populations are due primarily to summer rainfall amounts.

Louisiana has two species of rabbits: eastern cottontails (*Sylvilagus floridanus*) and swamp rabbits (*Sylvilagus aquaticus*). Although the cottontail is considered more of an upland species and the swamp rabbit a forested wetland (wooded) species, both species occur within the Refuge. Table 2 shows rabbit harvest on the Sherburne Complex from 2011-14.

Waterfowl

Yes, priority, biological objectives can be met and optimal populations can be sustained with the Refuge's waterfowl hunting program. The Refuge lies within the Mississippi Flyway which is used annually by vast numbers of migrating waterfowl. Nearly half of North America's bird species, and about 40 percent of its waterfowl, spend at least part of their lives in the Mississippi Flyway.

Waterfowl begin arriving on the Refuge in September with blue-wing teal, mallards, gadwall, ring-necked ducks, and widgeon among the 20 (or more) species that winter on the Refuge. An estimated 8,000-10,000 waterfowl may overwinter on the Refuge in a given year. Wood

ducks, a year-round resident, nest in tree cavities and in nest boxes placed throughout the hardwood forests. There is a Restricted Area at the north end of the Refuge which serves as waterfowl sanctuary.

The following data on waterfowl hunts is from the South Farm lottery hunt which is on COE lands. Public use figures totaled 392 waterfowl hunters in 146 groups for an average 2.9 hunters per group. A total of 610 ducks were harvested for an average of 4.2 ducks per group and 1.6 ducks per hunter. Waterfowl hunters spent 517 hours afield, for an average of 3.5 hours per group.

Other Migratory Birds

Yes, priority, biological objectives can be met and optimal populations can be sustained with the Refuge's other migratory bird hunting program. Other migratory birds hunted on the Refuge include woodcock, doves, rails, snipe, and gallinules. There are no managed dove hunting fields on the Refuge, so any doves harvested are incidental during other Refuge hunts. The same is true of rails, snipe, and gallinules.

Louisiana consistently has more woodcock hunters than any other southern state. Louisiana hunters spend more days afield hunting woodcock than hunters in any other southern state and they harvested 10,500 woodcock during the 2012-2013 woodcock season. Based on annual LDWF hunter surveys, the long-term average number of woodcock hunters in the state each year is 5,050.

The Refuge is a mix of forest, forest regeneration, and open fields that provide valuable habitat for American woodcock. During the 2013-14 season, LDWF recorded 425 man-days of use for woodcock hunters, with a total harvest of 367 woodcock (Table 2) on the Sherburne Complex.

Feral Hogs (*Sus scrofa*)

Feral hogs are an extremely invasive, introduced, non-native species. Complete eradication of feral hog is desirable, but currently is not feasible. Feral hogs breed rapidly. It has been shown on the Refuge that we can decrease the population significantly, but eradication has not been successful due to trapping limitations. Hunting of feral hogs, which is an activity widely enjoyed by local hunters, provides the Refuge with another management tool for reducing this detrimental species.

B. Is there competition for habitat between target species and other wildlife?

No, there is not any competition for habitat between white-tailed deer, Eastern wild turkey, the above listed small game species and other wildlife. All species are observed in good numbers in habitats across the refuge. All are observed in similar habitat types. While the hunted species and food resources are plentiful across Refuge habitats, feral hogs reduce, damage, and destroy habitat by rooting and wallowing, as well as through their consumption of hard mast in the fall and winter. Hog damage includes erosion along waterways and wetlands and the loss of native plants. Additionally, feral hogs

compete directly for food with deer, turkeys, squirrels and many other birds and mammals. Competition between deer, the primary hunted species, and other wildlife is not considered a limiting factor.

C. Are there unacceptable levels of predation by target species on other wildlife?

Yes, there is unacceptable predation by feral hogs, which are opportunistic feeders that prey on many other species. Direct prey includes small mammals, deer fawns and ground-dwelling reptiles and amphibians. They also prey on ground-nesting bird species such as wild turkey by ingesting their eggs. Indirectly, they can harbor several infectious diseases, some of which can be transmissible to humans and some of which can be fatal to other wildlife. Therefore, the reduction or eradication of feral hogs would benefit many native species. In high numbers, raccoons may also have unacceptable levels of predation on birds, bird eggs, and ground-dwelling and nesting reptiles and amphibians.

V. Description of the Refuge's Hunting Programs (current and proposed)

A. Areas of the Refuge that support populations of the target species.

The documented natural communities of the Refuge provide year-round habitat for over 200 species of birds, 40 species of mammals, and numerous species of amphibians and reptiles (USFWS 2011). The hunted species--white-tailed deer, raccoon, grey squirrel, rabbits, migratory birds, and wild turkey--occur throughout the many habitats of the Refuge.

The Refuge supports a diversity of wildlife species common to the Atchafalaya River Basin. Most of the wildlife that lives on the Refuge is found typically in bottomland hardwood forests. Few species surveys have been conducted on the Refuge. The Basin's dense bottomland hardwoods, cypress-tupelo swamps, overflow lakes, and meandering bayous provide a tremendous diversity of habitat for resident and migratory birds (and numerous other wildlife), and the area has been recognized as an Internationally Important Bird Area. The Basin's wooded wetlands provide vital nesting habitat for wood ducks, and support the nation's largest concentration of American woodcock. Wild turkeys, white-tailed deer, gray and fox squirrels, eastern cottontail and swamp rabbit, gray and red fox, coyote, striped skunk, and opossum inhabit the Refuge. Furbearers found in the great swamp are raccoon, mink, bobcat, nutria, muskrat, river otter, and beaver.

B. Current areas open to hunting.

This section provides a summary of the current hunts which are proposed to continue:

Hunting opportunities on the Refuge are managed by the LDWF as part of the Sherburne Complex. Due to the complex boundaries and multi-ownership, the Refuge adopts

LDWF hunting and fishing regulations whenever possible. This offers less confusion to the visiting public and also makes it easier for law enforcement.

Hunts offered include white-tailed deer (archery, primitive firearms, and modern firearms); turkey (open and lottery); fox and grey squirrel; rabbit; raccoon; waterfowl, snipe, rail, and gallinules; and woodcock. Hunters are permitted to take feral hogs as an incidental take during all open seasons with gear legal for the season in progress.

A basic resident or non-resident hunting license is required of all persons to hunt, take, possess or cause to be transported by any other person any wild bird or quadruped. A big game license is required in addition to the basic hunting license to hunt, take, possess or cause to be transported any deer, turkey or bobcat. A separate wild turkey license is required in addition to the basic hunting license and the big game license to hunt, take, possess or cause to be transported any turkey.

A WMA Hunting Permit, which costs \$15, is required for persons age 18-59 to hunt on the Sherburne Complex. Also all hunters must obtain a WMA Self-Clearing Permit from a Self-Clearing Permit Station. The check-in portion must be completed and put in a permit box before each day's activity on the day of the activity, except if hunting from a private camp adjacent to the WMA being hunted or if camping on the WMA, users need only to check in once during any 72 hour period. Users may check in one day in advance of use. The check-out portion must be carried by each person while on the WMA and must be completed and put in a permit box immediately upon exiting the WMA or within 72 hours after checking in if hunting from a private camp adjacent to the WMA (LDWF 2015-16a.).

Deer:

Deer seasons on the Refuge include archery, youth and physically challenged hunts, youth lottery, primitive weapons, and firearms. Seasons from year to year remain generally during the same timeframes.

Prior to hunting deer, all deer hunters, regardless of age or license status, must obtain deer tags and have them in possession when hunting deer. Immediately upon harvesting a deer, the hunter must tag the deer with the appropriate carcass tag before it is moved from the kill site, and the hunter must document the kill on the harvest report card portion of the deer tag license. The hunter must record the date of kill and the parish of kill on the carcass tag. The tag must remain attached to the deer while kept at camp, or while it is transported to the domicile of the hunter or to a cold storage facility. Hunters who keep the carcass or meat at camp must also comply with the game possession tag regulations. Within 7 days the hunter must validate the kill using the toll free validation phone number 866-484-4805 or the web link: www.la.wildlifelicense.com. When deer check stations are in operation, hunters on WMAs can validate deer during mandatory deer check hunts.

Any person hunting any wildlife during the open firearms deer hunting season and possessing buckshot, slugs, a primitive firearm, or a centerfire rifle shall display on their head, chest and/or back “HUNTER ORANGE” in accordance with statewide WMA requirements.

Youth 17 or younger may hunt either sex deer with any legal weapon during the Primitive Firearms Season in each deer hunting area. Legal Primitive Firearms for Primitive Firearms Season shall comply with state defined weapons, ammunition, and accessories.

Deer Season

Deer season dates will coincide with published dates for Sherburne WMA and will be published in the state hunting regulations, by public notice, or other means as deemed appropriate.

Turkey:

Turkey seasons on the Refuge include a youth lottery hunt, lottery hunt (all ages), and general season. Seasons from year to year remain generally during the same timeframes. The general season will focus on managing the number of hunters during the opening days for both safety and improved hunting condition due to lower competition from other hunters. Fifty hunters are drawn for the first two days of the season with the last three days of hunting open to all hunters.

Turkey Season

Season dates will coincide with published dates for Sherburne WMA and will be published in the state hunting regulations, by public notice, or other means as deemed appropriate.

Small Game:

The entire Refuge is open to small game (fox and grey squirrel, rabbit, and raccoon). Hunters must be in possession of all necessary state and federal licenses, as well as a mandatory self-clearing permit monitored by LDWF while hunting on the Refuge. Hunters must complete the self-clearing permit and place it in a self-clearing permit station after each day's hunt.

Small Game Season

Youth Squirrel Hunt: Season dates will coincide with published dates for Sherburne WMA and will be published in the state hunting regulations, by public notice, or other means as deemed appropriate.

Quail: closed

Raccoon (nighttime): Season dates will coincide with published dates for Sherburne WMA and will be published in the state hunting regulations, by public notice, or other means as deemed appropriate. A licensed hunter may take raccoon or opossum, one per person per day, during daylight hours, during the open rabbit season.

Waterfowl:

The Refuge, except as deemed closed on the map, is open to waterfowl hunting except hunting after 2p.m. is prohibited. Hunters must be in possession of all necessary state and federal licenses and stamps, as well as a mandatory check in/check out permits monitored by LDWF while hunting on the Refuge. They must possess a valid Louisiana State Hunting License, a Louisiana Duck Stamp, and a Federal Migratory Bird Hunting and Conservation Stamp (Federal Duck Stamp), except children under 16. All hunters 16 and older must carry on their person a Federal Duck Stamp that is validated by the hunter signing across the face of the stamp in ink. Hunters must complete a self-clearing permit and place them in a self-clearing permit station after each day's hunt.

Only approved non-toxic shot may be used for waterfowl Refuge hunts. The possession of toxic shot while hunting waterfowl is prohibited. The legal weapon for waterfowl hunting is a shotgun only.

Waterfowl, Snipe, Rail, Woodcock and Gallinule Season

Season dates will coincide with published dates for Sherburne WMA and will be published in the state hunting regulations, by public notice, or other means as deemed appropriate.

Youth Waterfowl Lottery Hunt – Contact LDWF Opelousas Office for details and application.

C. Areas of the Refuge Proposed to be Opened for Hunting:

Feral Hog:

In an effort to avoid confusion on the part of the public and in order to assist the state with management and control of this exotic species, feral hog hunting on Refuge lands shall comply with and adopt such standards and regulations as may be promulgated by the state for such hunts on lands of Sherburne WMA. Only areas open to hunting on the Refuge will be open to feral hog hunting. Hunters may only take hogs with gear legal for the season in progress. The take of hogs is prohibited during nighttime raccoon seasons. Season dates will coincide with published dates for Sherburne WMA and will be published in the state hunting regulations, by public notice, or other means as deemed appropriate.

Spring Squirrels:

The same areas of the Refuge that are opened for fall squirrel hunt will be opened for the spring hunt. Season dates will coincide with published dates for Sherburne WMA and will be published in the state hunting regulations, by public notice, or other means as deemed appropriate.

D. Species to be taken, hunting periods/seasons, hunting access for the hunt areas.

Current hunts are listed in the state's annual Hunt Brochure under Sherburne WMA. Future hunt dates and seasons may change based on population status. Access to each hunt area is depicted on the WMA map. Roads are open for vehicular access unless gated closed or signed as closed to vehicles. All roads in the hunt units are open for foot access unless administratively closed with an "Area Closed" sign.

E. Justification for the permit.

A WMA Hunting Permit, which costs \$15, is required for persons age 18-59 to hunt on the Sherburne Complex. Also all hunters must obtain a WMA Self-Clearing Permit from a Self-Clearing Permit Station. The check-in portion must be completed and put in a permit box before each day's activity on the day of the activity, except if hunting from a private camp adjacent to the WMA being hunted or if camping on the WMA, users need only to check in once during any 72 hour period. Users may check in one day in advance of use. The checkout portion must be carried by each person while on the WMA and must be completed and put in a permit box immediately upon exiting the WMA or within 72 hours after checking in if hunting from a private camp adjacent to the WMA (LDWF 2015-16a.).

F. Consultation and Coordination with the State.

The Refuge lies adjacent to Sherburne WMA and public use on the Refuge is managed by the LDWF under a cooperative agreement with approval from the Refuge. All seasons, rules, and regulations, conform to those of the Sherburne WMA when applicable.

G. Law Enforcement

Enforcement of Refuge violations associated with hunting on the Refuge is the responsibility of the LDWF. Service Federal Officers and Special Agents have concurrent jurisdiction and may also enforce Refuge regulations. Other local officers may also assist during hunts.

H. Funding and Staffing Requirements

The Refuge is managed by the LDWF consistent with specific language in the authorizing legislation and under a cooperative agreement with approval from the Refuge.

VI. MEASURES TAKEN TO AVOID CONFLICTS WITH OTHER MANAGEMENT OBJECTIVES

A. Biological Conflicts

The harvest program is designed to minimize disturbance to over-wintering migratory birds. Time and space zoning will be used, if necessary, to meet Refuge objectives. Every precaution necessary to minimize biological conflict will be taken. None of the current hunts should have any impact on endangered or threatened species on the Refuge.

B. Public Use Conflicts

The Refuge annually hosts over 50,000 visitors. These visitors have a variety of interests such as hunting, fishing, photography, bird watching, wildlife observation, etc. Some conflict may occur between hunters and other user groups. However, due to the short nature of the hunts, conflicts should be very minimal. Efforts will be made to inform the public of future dates of hunting.

C. Administrative Conflicts

The hunt program will be administered and conducted by LDWF as part of Sherburne Complex. The state has the administrative ability to conduct a hunt program that provides visitors with a safe, positive hunting experience.

Hunting opportunities provided on Refuge are designed to result in minimal disturbance to trust resources. Minimizing disturbance factors and potential impacts are a primary consideration in season and regulation development.

VII. HUNT SPECIFICS

A. Refuge-specific Regulations

These regulations are found in the LDWF State hunting pamphlet as part of Sherburne WMA.

The following activities are prohibited:

1. Use or possession of alcoholic beverages while hunting or operating a boat.
2. Littering.
3. Camping/overnight parking.
4. Taking of plants (or parts of), including cutting trees or brush.

5. Taking of wildlife (or parts of), including antlers and skulls, except where authorized (hunting and fishing).
6. Discharging of firearms if not engaged in hunting activities.
7. Baiting or hunting over bait.
8. Hunting from any road, levee or in any area that is not clearly posted as open to hunting.
9. Marking trails with non-biodegradable flagging tape.
10. Fires.
11. Blocking gates or roadways with vehicles.

B. Anticipated Public Reaction to the Hunting Program

The public generally supports the Refuge hunting program to the extent of requesting more hunts, greater access, and longer hunt seasons. Public reaction from surrounding communities to all Refuge hunts has been very favorable and is expected to remain so in the future.

C. Hunter Application and Registration Procedures

All hunters for any seasons will be required to have in their possession a self-clearing permit, valid Louisiana State Basic Hunting License, and WMA hunting permit. In addition, additional licenses are required for the following hunts:

Waterfowl

All waterfowl hunters will be required to carry a Louisiana Duck Stamp, and a signed valid Federal Migratory Bird Hunting and Conservation Stamp.

Deer

All deer hunters will be required to carry a big game license and required deer tags. Additional licenses are needed for archery and primitive weapons.

Turkey

All turkey hunters will be required to carry a big game license, required turkey tags, and Louisiana Wild Turkey Stamp.

Small Game

All small game hunters are required to carry a basic hunting license.

D. Media Selection for Announcing and Publicizing the Hunting Program

A news release is sent to the local newspapers and posted on the Refuge and state websites. Hunter orientation of the Refuge will be achieved by providing a map of the Refuge in the Sherburne Complex Hunt Brochure. The map will clearly define all Refuge roads, trails, public use areas, closed areas, etc. These areas will also be well marked with signs and paint. Participants in the hunting program will be able to access the non-sanctuary portions of the Refuge year-round to acquaint them with the

Refuge. Hunters can address questions by calling, writing, or e-mailing Sherburne WMA or Southeast Louisiana National Wildlife Refuges Complex. Annual hunt meetings are held by LDWF prior to hunting seasons for the public to address questions and concerns about the WMA hunt programs.

E. General Requirements

The current hunting regulations can be mailed to hunters and may be emailed in the future. These regulations are printed each summer and are available for pick up at Sherburne WMA. The regulations may also be printed from the LDWF website.

F. Hunter Requirements

1. Youth Hunts - Individuals 17 or younger must possess a hunter safety certification or proof of successful completion of a hunter safety course. Youth must be accompanied by one adult 18 years of age or older. If the accompanying adult is in possession of hunter safety certification, a valid hunting license or proof of successful completion of a hunter safety course, this requirement is waived for youth younger than 16 years of age. Adults may not possess a firearm. Youth may possess only one firearm while hunting. Legal firearms are the same as described for deer hunting. The supervising adult shall maintain visual and voice contact with the youth at all times, except properly licensed youth 16-17 years old and youth 12 years old or older who have successfully completed a hunter safety course may hunt without a supervising adult.
2. Allowable equipment - Any weapons possessed by hunters must be specified as appropriate and permitted by state and Refuge regulations. Only non-toxic shot of the appropriate size specified by state and federal regulations will be allowed by hunters utilizing shotguns. State regulations apply to all stands and blinds.
3. License and permits - All hunters are required to possess and carry all applicable state and federal permits, licenses, and stamps while hunting.
4. Reporting requirements – Each hunter will be required to fill out a self-clearing permit and place it in the permit box after each day’s hunt.
5. Hunter training and safety - All hunters are required to comply with state regulations regarding the Hunter Safety Course. .

6. Vehicles - All motor vehicles are restricted to designated roads and parking areas.

VIII. COMPATIBILITY DETERMINATION

Hunting is a priority public use under the National Wildlife Refuge Improvement Act of 1997. A Compatibility Determination for the existing hunt program on the Refuge is included as item 4 of this Decision Package. The Refuge Manager's determination is that hunting and all associated program activities in this plan are compatible with purposes of the Refuge.

REFERENCES

- Louisiana Department of Wildlife and Fisheries. Sherburne WMA Coordination Meeting, LDWF Activity Reports 2013-2014. Baton Rouge, LA.
- Louisiana Department of Wildlife and Fisheries. 2015-16a. Louisiana Hunting Regulations. Baton Rouge, LA.
- U.S. Fish and Wildlife Service. 1986. Sport Hunting Decision Document Package for Atchafalaya NWR – Hunting Plan, December 1986.
- U.S. Fish and Wildlife Service. 2006. Atchafalaya National Wildlife Refuge, 2006 Annual Narrative Report.
- U.S. Fish and Wildlife Service. 2008. Biological Review Report. Atchafalaya National Wildlife Refuge.
- U.S. Fish and Wildlife Service 2011, Atchafalaya National Wildlife Refuge Comprehensive Conservation Plan, U.S. Department of the Interior, Fish and Wildlife Service, Atlanta, GA.
- U.S. Fish and Wildlife Service. 2013. Habitat Management Plan for Atchafalaya National Wildlife Refuge. U.S. Department of the Interior, Fish and Wildlife Service, Atlanta, GA.