U.S. Fish and Wildlife Service

Big Lake National Wildlife Refuge
Hunting and Fishing Plan
2021

Sunset over Ditch 81 on Big Lake NWR– Steven Rimer, USFWS

Big Lake National Wildlife Refuge
Hunting and Fishing Plan

August 2021

U.S. Fish and Wildlife Service

Big Lake National Wildlife Refuge
2274 Highway 18
Manila, AR 72442

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SECTION A
BIG LAKE NATIONAL WILDLIFE REFUGE
UPLAND AND BIG GAME HUNTING AND FISHING PLAN

I. Introduction

National Wildlife Refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, United States Fish and Wildlife Service (Service, USFWS) policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966 (Administration Act or NWRSAA), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Improvement Act or NWRSIA), Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

The Central Arkansas National Wildlife Refuge Complex includes six individual and unique National Wildlife Refuges (NWR, refuge). These are Bald Knob NWR, Big Lake NWR, Cache River NWR, Holla Bend NWR, Logan Cave NWR, and Wapanocca NWR. With the exception of Logan Cave NWR, hunting and fishing are approved and existing uses on each of these refuges (USFWS 2009, 2010).

Big Lake NWR was established pursuant to Executive Order 2230 signed on August 2, 1915 by President Woodrow Wilson.

The primary purposes of the refuge are "... as a refuge, reserve, and breeding grounds for native birds" (Executive Order 2230, dated August 2, 1915); "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. § 751d (Migratory Bird Conservation Act of 1934); To manage the Big Lake Wilderness as part of the National Wilderness Preservation System, as compatible with the purpose for which Big Lake NWR was established 16 U.S.C. § 1131-1136 (The Wilderness Act of 1964).

Big Lake NWR is located near the town of Manila in Mississippi County, Arkansas. The refuge was established in August of 1915 by Executive Order of President Woodrow Wilson to serve as an inviolate sanctuary, reserve, and breeding ground for native and migratory birds. It is one of nation's oldest refuges and is 10,935 acres in size. Once a free-flowing river system, the New Madrid earthquakes of 1811- 1812 changed the free-flowing Little River into the lake and swamp environment that exist today. Due to the refuge's location, significant bottomland forest habitat, and abundance of bird life, it was recognized as a Globally Important Bird Area by the American Bird Conservancy in March of 2001. The refuge contains 5,000 acres that is recognized as a National Natural Landmark and 2,144 acres that are part of the National Wilderness Preservation System. The refuge annually winters several species of waterfowl. Peak numbers in January and February often exceed 200,000 and may reach in excess of 500,000. Wood ducks (*Aix sponsa*) are year-round residents and may raise approximately 2,500 young annually on the refuge. There have been over 225 bird species observed on the refuge. The refuge serves as habitat for a variety of migratory bird, upland game, and big game species in addition to a myriad of non-hunted species.

The mission of the NWRS, as outlined by the NWRSAA, as amended by the NWRSIA (16 U.S.C. 668dd et seq.), is to:

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

The NWRSIA (16 U.S.C. 668dd(a)(4) mandates the Secretary of the Interior in administering the NWRS to:

- Provide for the conservation of fish, wildlife, and plants, and their habitats within the NWRS;
- Ensure that the biological integrity, diversity, and environmental health of the NWRS are maintained for the benefit of present and future generations of Americans;
- Ensure that the mission of the NWRS described at 16 U.S.C. 668dd(a)(2) and the purposes of each refuge are carried out;
- Ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the States in which the units of the NWRS are located;
- Assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the NWRS and the purposes of each refuge;
- Recognize compatible wildlife-dependent recreational uses as the priority general public uses of the NWRS through which the American public can develop an appreciation for fish and wildlife;
- Ensure that opportunities are provided within the NWRS for compatible wildlife-dependent recreational uses; and
- Monitor the status and trends of fish, wildlife, and plants in each refuge.

Therefore, it is a priority of the Service to provide for wildlife-dependent recreation opportunities, including hunting and fishing, when those opportunities are compatible with the purposes for which the refuge was established and the mission of the NWRS.

Hunting and fishing occurred prior to the refuge's establishment going back to at least 600 A.D. when Native Americans used the area for subsistence hunting and fishing. In the mid to late 1800's local market hunters and wealthy out of state businessmen competed for the hunting rights on Big Lake. Market hunters could harvest over 5,000 ducks a day and send them by railroad to bigger cities to serve in restaurants and make a good income while the out of state business men would come for hunting vacations. Over time the area gained national attention for the "Big Lake Waterfowl Wars" due to numerous conflicts, including shoot-outs, between the market hunters and out of state businessmen. President Wilson intervened and sent the army to help bring an end to the conflicts and in 1915 the president established the Big Lake NWR for migratory birds. Currently, the refuge serves as a key wintering area for waterfowl and important stopover area for neotropical migrant songbirds.

The Service recognizes that the Arkansas Game and Fish Commission (AGFC) is the authority in the state of Arkansas regarding the population status and sustainability of resident wildlife,

including the species that are hunted on Big Lake NWR. The Service strives to provide hunting opportunities at Big Lake NWR that are within the State season framework.

This Hunting and Fishing Plan is tiered from the refuge's Comprehensive Conservation Plan (CCP) (USFWS 2009) and based on the 1985 Hunt plan and 1987 fish plan (USFWS 1985 and 1987); hunting and fishing as outlined herein is consistent with the CCP. This draft Hunting and Fishing Plan for the refuge was developed based on Alternative B (Proposed Action) in the Environmental Assessment (EA) in Section B. The companion Hunting and Fishing Compatibility Determinations (CDs) are included in Appendix B and C. Upon approval, these documents will replace the existing Hunt and Fish Plans and existing Hunting and Fishing CDs.

II. Statement of Objectives

Hunting and fishing are consistent with the NWRSIA and the refuge's CCP (CCP; USFWS 2009) goals and objectives to develop compatible, wildlife-dependent recreation programs that lead to enjoyable experiences; a greater understanding of fish, wildlife, and habitat conservation; and a greater appreciation for the value of Big Lake NWR.

Big Lake NWR CCP Goal 4: *Develop compatible, wildlife-dependent recreation programs that lead to enjoyable experiences, a greater understanding of fish, wildlife, and habitat conservation, and a greater appreciation for the value of Big Lake NWR.*

> ***Big Lake NWR CCP Objective 4-3:*** *Hunting. Annually provide and expand quality, compatible hunting opportunities as feasible.*
>
> ***Big Lake NWR CCP Objective 4-4:*** *Fishing. Annually provide and expand quality, compatible fishing opportunities as feasible.*

III. Description of Hunting and Fishing Program

The hunting and fishing seasons and species generally will be consistent with AGFC season framework and regulations. While specific hunting and fishing seasons, days, and times may vary from state framework, any variations are approved by AGFC. The Big Lake NWR hunt and fish brochures will be annually updated to reflect more specific information and restrictions, including seasons, days, times, bag limits, access, licenses and permits, hunting and fishing devices, ammunition, other equipment, quota application process, and other refuge-specific regulations

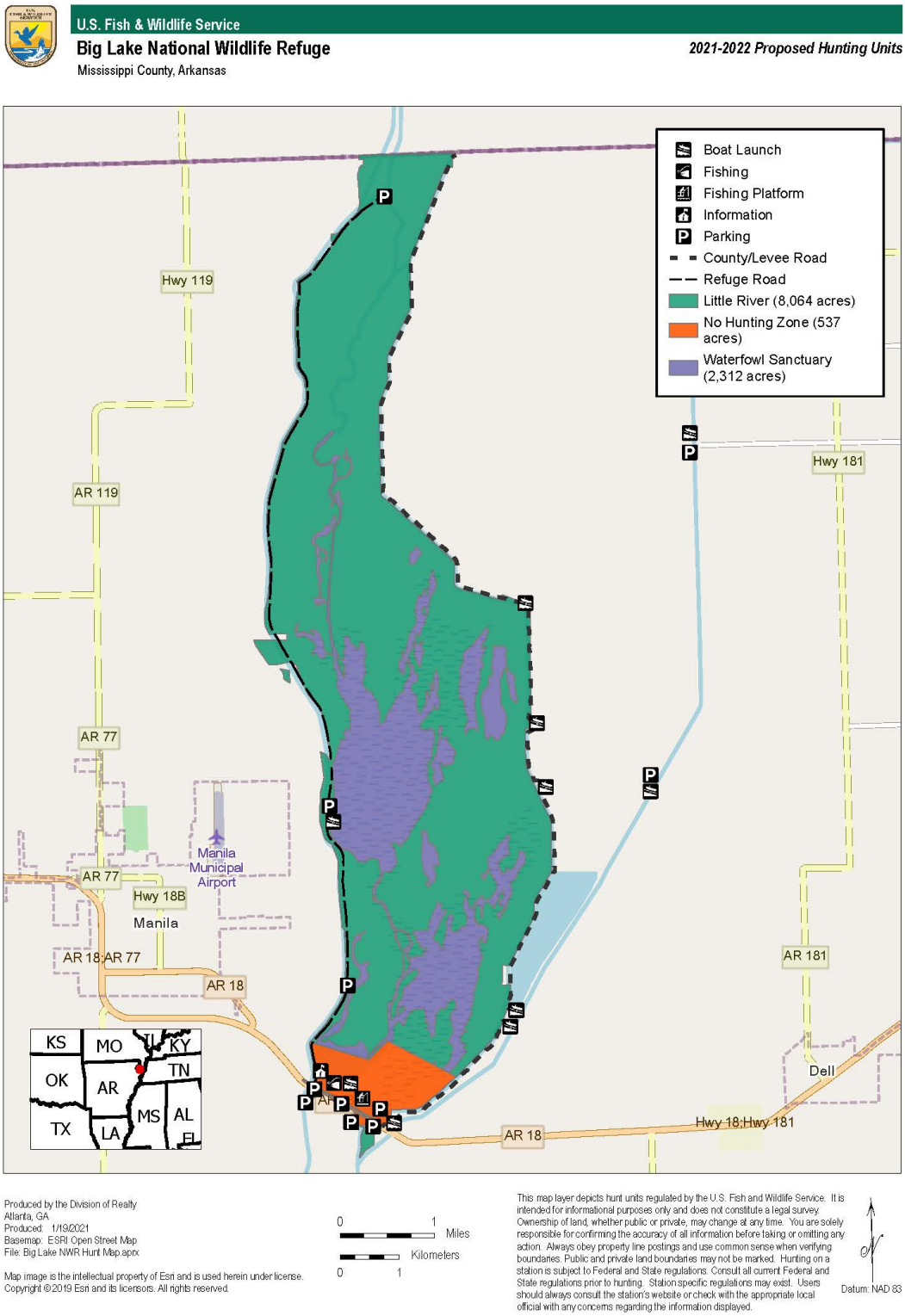
A. Areas to be opened to Hunting and Fishing

All but 537 acres (No Hunting Zone around office and public use trails and fishing pond, boat ramp, and parking lots) of Big Lake NWR will be open to hunting and/or fishing.

Hunting:

Hunting for upland and big game would occur in the Little River Hunt Unit, which is approximately 8,064 acres (Figure 1). This unit consists primarily of bottomland hardwood forest and cypress swamp. The Unit extends from the north boundary (which is the Missouri state border), to the west boundary (which is defined by Ditch 81), south to the No hunting unit that includes the office/ visitor center, and Ditch 81 water control structures, and to the east boundary (that is defined by Ditch 28). Hunting also will occur in the Waterfowl Sanctuary Hunt Unit (2,312 acres), which consists primarily of Big Lake,

Figure 1. Big Lake National Wildlife Refuge Hunt Units.



and is surrounded by the Little River Hunt Unit. However, this hunt unit, which is designated as a waterfowl sanctuary, will be closed to all public entry, including hunting, from November 1st through February 28th (Figure 1).

Fishing:

Fishing, frogging, and crawfishing are allowed on all refuge waters from March 1st through October 31st. The lake closes to all public entry, including fishing, November 1st through February 28th to adhere to the waterfowl sanctuary status. From November 1st through February 28th, fishing is restricted to the lake area below Sand Slough Dam with non-motorized boats and boats with electric trolling motors (Figure 1).

B. Species to be Taken, Hunting and Fishing Periods and Access

Any changes will be identified in the annual refuge public use brochure.

Rabbit (*Sylvilagus floridanus, S. aquaticus*) - follows the statewide season in accordance with state and refuge-specific seasons and regulations listed in the AGFC Hunting Guidebook and annual refuge public use brochure. Dogs are permitted north of Timm's Point.

Squirrel (*Sciurus carolinensis, S. niger*) - hunting is allowed in accordance with state regulations and with refuge-specific season and regulations listed in the AGFC Hunting Guidebook and annual refuge public use brochure. Dogs are permitted north of Timm's Point.

Quail (*Colinus virginianus*) – will follow the statewide season in accordance with state and refuge-specific regulations listed in the AGFC Hunting Guidebook and annual refuge public use brochure. This hunt will be conducted when a sustainable population is maintained and both refuge and state managers agree to conduct the hunt. Dogs will be allowed north of Timm's Point.

Raccoon (*Procyon lotor*) - hunting is allowed in accordance with state regulations and with refuge-specific season and regulations listed in the AGFC Hunting Guidebook and annual refuge public use brochure. Dogs are required when hunting at night.

Opossum (*Didelphis virginana*) - follows the state-wide season in accordance with state and refuge-specific regulations listed in the AGFC Hunting Guidebook and annual refuge public use brochure. Dogs are required when hunting at night.

Furbearer (coyote (*Canis latrans*), beaver (C*astor canadensis*), nutria (*Myocastor coypus*), gray fox (*Urocyon cinereoargenteus*, red fox (*Vulpes vulpes)*, mink (*Mustela vison*), muskrat (*Ondatra zibethicus)*, striped skunk (*Mephites mephitis*), bobcat (*Felis rufus*), and river otter (*Lutra canadensis*) - are open for incidental take with devices legal for refuge hunts that occur from September 1st to March 31st, and according to any applicable state regulations.

White-tailed deer (*Odocoileus virginianus*) – Archery hunting follows the statewide season in accordance with state and refuge regulations listed in the AGFC Hunting Guidebook and in the annual refuge public use brochure. The Waterfowl Sanctuary Hunt Unit is closed to all public entry and use, including hunting, from November 1st – February 28th.

The modern gun quota deer hunt requires a quota permit (FWS Form 3–2439). During this hunt, the refuge is closed to all other activities. The dates and regulations for this hunt will

be listed in the AGFC Hunting Guidebook and in the annual refuge public use brochure.

The modern gun youth quota deer hunt requires a quota permit (FWS Form 3–2439) and occurs during the first statewide youth gun deer hunt weekend. The dates and regulations for this hunt will be listed in the AGFC Hunting Guidebook and in the annual refuge public use brochure.

Turkey (*Meleagris gallopavo*)- The Firearms Quota Spring Turkey and Youth Quota Spring Turkey hunts will consist of two-day hunts that follow the state-wide season and regulations for the Wildlife Management Areas (WMA) listed in the AGFC Turkey Hunting Guidebook and in the annual refuge public use brochure. Currently, the Youth Quota hunt will be the only hunt conducted until the turkey population level can sustain both hunts and both refuge and state managers agree to conduct the Firearms Quota hunt. Both hunts will require a quota permit (FWS Form 3–2439).

Feral hogs (*Sus scrofa*) - In conjunction with AGFC's Feral Hog Control Program, feral hogs are open only for incidental take only during the modern gun deer seasons with hunting devices legal for those hunts and by archery hunters from November 1st through December 31st unless otherwise prescribed by AGFC in conjunction with their statewide feral hog control program.

Note: of the above-listed species, red and gray fox, bobcat, river otter, mink, striped skunk, and feral hog are species that would be newly-opened for take under this hunting and fishing plan. Hunting Access: Hunters may access refuge hunting areas no earlier than 4:00 a.m. and must leave one hour after sunset except for those engaged in raccoon/opossum hunting at night with the appropriate equipment and required license. Hunters trailing or retrieving deer after hours should call the Refuge Office and leave a message stating their name, phone number and the general area in which they are searching for or retrieving deer.

All FmHA tracts in Lawrence and Craighead counties that are managed by Big Lake NWR are closed to all entry and public use including hunting and fishing.

Any additional access information will be described in the annual refuge public use brochure.

Sport Fishing and Access: Fishing, crawfishing, and frogging are allowed for all species legal for harvest according to AGFC regulations on all refuge waters from March 1st through October 31st and in accordance with state and refuge regulations listed in the AGFC Fishing Guidebook and annual refuge public use brochure.

C. Hunter and Angler Permit Requirements

Hunters are required to have a State hunting license, as well as a Refuge-Specific Hunting Permit and, if applicable, a Refuge Quota hunt permit (FWS Form 3-2439). Anglers will be required to have a State fishing license, but a Refuge-Specific permit currently is not required.

D. Consultation and Coordination with the State

The refuge reviewed the operations and regulations for neighboring State wildlife

management areas and refuges to find consistency where possible. Biennially, plans for the upcoming hunting seasons are presented to the AGFC at the Hunt Coordination Meeting for concurrence. However, coordination with AGFC occurs regularly. The refuge generally follows state seasons, bag limits, and regulations, deviating only when necessary for biological, safety, staffing, or hunt quality reasons, and as approved by AGFC. The Service recognizes that AGFC is the authority in the state of Arkansas regarding the population status and sustainability of resident wildlife, including the species that are hunted on Big Lake NWR. The Service strives to provide hunting opportunities at Big Lake NWR that are within the State season framework. We continue to consult and coordinate on specific aspects of the Hunting and Fishing Plan.

Big Lake NWR and AGFC will continue to work together to ensure safe and enjoyable recreational hunting opportunities. Big Lake NWR will support the State in its disease prevention and surveillance efforts as appropriate. Hunter participation and harvest data are collected by the AGFC and Federal Wildlife Officers. Big Lake NWR and AGFC work together to patrol the refuge, safeguarding hunters, visitors, and both game and nongame species.

E. Law Enforcement

Enforcement of refuge violations normally associated with management of a National Wildlife Refuge is the responsibility of commissioned Federal Wildlife Officers. Other officers, Special Agents, State game wardens, and the local Sheriff's Department often assist the Central Arkansas Complex Federal Wildlife Officers.

The following methods are used to control and enforce hunting and fishing regulations:

- Refuge and hunt area boundaries and fishing site locations will be clearly posted;
- The Refuge will provide a brochure that provides hunting and fishing regulations and shows hunting and fishing areas; and
- Central Arkansas NWR Complex Federal Wildlife Officers and AGFC law enforcement officers will randomly check hunters and anglers for compliance with Federal and State Laws.

F. Funding and Staffing Requirements

Annual cost of administering the hunting and fishing program at Big Lake NWR, including salary, equipment, law enforcement, brochures, collection of data and analysis of biological information, etc. totals approximately $12,000 (Table 1). It is anticipated that funding will continue to be sufficient to continue the hunting and fishing program at Big Lake NWR in the future.

Table 1. Approximate costs of administering hunting and fishing programs at Big Lake NWR

Hunting and Fishing Program Needs	Cost
Staff (Maintenance Workers, Biologist, and Refuge Managers)	$4,200
Maintain roads, parking lots, trails*	$5,000
News releases, fact sheets, and reports	$500

Maintain signage	$500
Law Enforcement	$2,200
Total Annual Cost	**$12,400**
Offsetting Revenue for the Complex	$39,662
*Refuge trails and roads are maintained for a variety of activities. Costs shown are a percentage of total costs for trail/road maintenance on the refuge and are reflective of the percentage of trail/road use for hunting and fishing. Volunteers account for some maintenance hours and help to reduce overall cost of the program.	

IV. Conduct of the Hunting and Fishing Program

A. Hunter and Angler Permit Application, Selection, and/or Registration Procedures

- A refuge general hunting permit (signed brochure) is required for all hunts. The refuge general hunting permit must be signed by the hunter to be valid. It must be carried by the hunter at all times while on the refuge and in possession of hunting gear. Permits are non-transferable. A permit is located on the front of the public use brochure or can be downloaded and printed from the refuge website. An electronic signed copy of the permit may also be produced on a person's own cellular phone or other type of portable electronic device that clearly displays and accurately reproduces all of the information. This permit expires June 30. Signing the permit acknowledges that the hunter has read and understands the refuge hunting regulations and agrees to obey them and agrees to allow Service and AGFC officers to inspect or search all equipment used during the permittee's hunt. NOTE: A Quota Permit (FWS Form 3-2439) also is required for the Quota Deer and Turkey Hunts.

- Currently, to apply for quota hunts (except youth hunts), each hunter will be required to create an account with RecAccess. Each hunter will assigned a RecAccess identification number that be an individual hunter's number that will remain consistent from year to year. Quota permits will be purchased through this site.

- All hunters, including those drawn for quota hunts, must comply with state requirements for hunter education. In addition, all hunters under the age of 12 who possess valid hunter education certification must remain within normal sight and voice contact with an adult at least 18 years of age who possesses a valid State hunting license. Hunters under the age of 16 who have not completed hunter education must be under the direct supervision (within arm's reach) of an adult at least 21 years old who possesses a valid State hunting license. One adult may supervise up to two youth hunters for migratory bird and upland game hunting, but may supervise only one youth during big game hunting.On any quota hunt, the supervising adult may not hunt any species unless they also possess a quota permit for that same hunt.

- The Refuge is closed to all entry and public use during the Quota Gun Deer Hunt. Only Quota Gun Deer Hunt permit holders are allowed to enter or use the Refuge during this hunt and only for the purpose of deer hunting and species open for incidental take. Quota hunt permits (FWS Form 3–2439) are currently $12.50 (price subject to change at the refuge's discretion based on administrative/operational need) and must be purchased from the Refuge website at www.fws.gov/refuges/big_lake. Quota permits are issued on a first come, first serve basis beginning August 1st until the 10 quota permits is

reached. The number of quota permits issued is subject to change in the future (in consultation with AGFC) based on hunt quality/safety, hunter demand, deer population status, or other considerations. Permit requests will not be accepted in person. Permits are non-transferable and non-refundable, even in the event of refuge deer hunt closures due to flooding.

- The Refuge is closed to all entry and public use during the Youth Quota Gun Deer Hunt. Only Youth Quota Gun Deer Hunt permit holders are allowed to enter or use the Refuge during this hunt and only for the purpose of deer hunting and species allowable for incidental take. Only youth 6 to 15 years old may hunt during this special youth deer hunt. Youth deer hunt permits are free. Contact the refuge office or consult the refuge website at www.fws.gov/refuges/big_lake for application instructions. Quota permits (FWS Form 3–2439) are issued on a first come, first serve basis beginning August 1st until the 10 quota permits is reached. The number of quota permits issued is subject to change in the future (in consultation with AGFC) based on hunt quality/safety, hunter demand, deer population status, or other considerations. Permits are non-transferable, even in the event of refuge deer hunt closures due to flooding.

- Only Quota Gun Youth Spring Turkey Hunt permit holders are allowed to enter or use Wildlife Auto Drive during this hunt and only for the purpose of turkey hunting. Only youth 6 to 15 years old may hunt during this special youth turkey hunt. Hunt permits are free. Contact the Refuge office or consult the Refuge website at www.fws.gov/refuges/big_lake /for application instructions. Quota permits (FWS Form 3–2439) are issued on a first come, first serve basis beginning March 1st until the quota of 10 permits is reached. Permit requests will not be accepted in person. Permits are non-transferable, even in the event of refuge turkey hunt closes due to flooding.

- Only Quota Gun Turkey Hunt permit holders will be allowed to enter or use Wildlife Auto Drive during this hunt and only for the purpose of turkey hunting. Contact the refuge office or consult the refuge website at www.fws.gov/refuges/big_lake for application instructions. Quota permits (FWS Form 3–2439) are issued on a first come, first serve basis beginning March 1st until the quota of 10 permits is reached. Permit requests will not be accepted in person. Permits are non-transferable and non-refundable, even in the event of refuge turkey hunt closes due to flooding. This hunt will not be conducted until State and refuge officials agree turkey numbers can support a sustained harvest, and can agree on number of permits to be issued and length and timing of season.

- The quota hunt application procedures, costs, and selection processes are subject to change, due to administrative circumstances. Any changes to these procedures, costs, or processes will be provided to the public on the Refuge website and/or in the annual public use brochure.

- Anglers currently are not required to obtain a refuge-specific fishing permit, but they must have in their possession a valid AGFC fishing license.

- Hunting blinds accessible by wheelchair-bound hunters may be provided in designated areas on the refuge for big game hunting. Blinds may be moveable or fixed, and their placement sites may vary depending on water/habitat conditions and use of areas by the target game species. Blinds/access paths will be of such construction and placement that will ensure compatibility, safety, minimal environmental footprint, and minimize

conflicts with other users. A draw permit system would be used to assign hunters to these blinds. Permits would be free. Fishing platforms are already in use for wheelchair-bound anglers but additional structures may be constructed in areas suitable for their placement in a manner that will ensure compatibility, safety, and minimize conflicts with other users.

B. Refuge-Specific Hunting Regulations

Specific hunting and fishing seasons, days, and times may vary in some instances from state frameworks, however, these differences are approved by AGFC. The Big Lake NWR annual public use brochure will be updated to reflect more specific information and restrictions, including seasons, days, times, bag limits, access, licenses and permits, allowable hunting and fishing devices and ammunition, other equipment, quota application process, and other refuge-specific regulations. To ensure compatibility with refuge purposes and the mission of the NWRS, hunting must be conducted in accordance with State and Federal regulations, as supplemented by refuge-specific regulations, and information sheets/brochures. Stipulations are detailed in the Hunting Compatibility Determination (Appendix B). The following hunting regulations apply at Big Lake NWR:

(1) *Migratory Bird Hunting* [Reserved]

(2) *Upland game hunting*. We allow hunting of squirrel, rabbit, quail, raccoon, nutria, coyote, beaver, muskrat, river otter, mink, bobcat, fox, striped skunk, and opossum on designated areas of the refuge subject to the following conditions:

(i) We require a signed refuge hunt permit (FWS Form 3-2439). Anyone on the refuge in possession of hunting equipment must sign and possess the permit (FWS Form 3-2439) at all times.
(ii) During the quota gun deer hunt, we close the refuge to all other hunts and public entry.
(iii) We allow incidental take of nutria, beaver, muskrat, river otter, mink, bobcat, fox, striped skunk, and coyote during any refuge hunt with the weapons legal for that hunt, subject to applicable State seasons and regulations.
(iv) We allow squirrel, rabbit, raccoon, opossum, and quail hunting according to season dates and bag limits provided in the annual refuge public use brochure.
(v) We allow the use of dogs only for squirrel, rabbit, and quail hunting in the refuge area north of Timm's Point.
(vi) Hunters may only use shotguns, rifles and handguns chambered for rimfire cartridges, air rifles, and archery tackle.
(vii) We prohibit hunting from mowed and/or gravel road rights-of-way.
(viii) Hunters may enter the refuge beginning at 4 a.m. and must exit the refuge by 1 hour after legal sunset, except that we allow hunting of raccoon and opossum at night (from 30 minutes after legal sunset to 30 minutes before legal sunrise) on the refuge.
(ix) All hunters age 11 and younger who possess valid hunter education certification must remain within normal sight and voice contact with an adult age 18 or older who possesses a valid State hunting license. Hunters age 15 and younger who have not completed hunter education must be under the direct supervision (within arm's reach) of an adult age 21 or older who possesses a valid State hunting license. One adult may supervise up to two youth hunters for upland game hunting, but may supervise only one youth during big game hunting.
(x) From November 1 to February 28, we close all waterfowl sanctuaries to all hunting and public entry.

(xi) Hunters and anglers may not leave motor vehicles, bicycles, e-bikes, or boats overnight on the refuge.
(xii) We only allow use of all-terrain vehicles (ATVs) by hunters with mobility-impairments, and the refuge manager must authorize this use in writing.
(xiii) Hunters and anglers may use motor vehicles, bicycles, and e-bikes only on public use roads not closed by a locked gate, other barrier, or signage.
(xiv) From November 1 through February 28, boat access is restricted to launching at Seven Mile boat ramp and using Ditch 28 only.
(xv) We prohibit the use of personal watercraft (e.g., jet skis), airboats, and hovercraft for hunting and fishing on the refuge.
(xvi) We prohibit hunting from a vehicle.

(3) *Big game hunting*. We allow hunting of white-tailed deer, turkey, and incidental take of feral hog on designated areas of the refuge subject to the following conditions:
(i) The conditions set forth at paragraphs (b)(2)(i) through (iii), and (vii) through (xvi) of this section apply.
(ii) We allow archery/crossbow, modern gun, and muzzleloader deer hunting according to season dates and bag limits provided in the annual refuge public use brochure.
(iii) Modern gun deer hunters may only use shotguns with slugs, muzzleloaders, handguns with barrel lengths greater than 4 inches, large-bore air rifles, and archery/crossbow tackle.
(iv) You may erect portable stands or blinds 7 days prior to the refuge deer season and must remove them 7 days after the closure of archery season (see §27.93 of this chapter).
(v) We prohibit leaving any tree stand, blind, or game camera on the refuge without the owner's Arkansas Game and Fish Commission customer identification number clearly written on it in a conspicuous location.
(vi) Hunters may only take feral hog incidental to modern gun and muzzleloader deer hunts and during a specified period during archery deer hunting according to season dates provided in the annual refuge public use brochure.
(vii) We prohibit the possession or use of lead shot or buckshot for deer hunting. We allow lead shot for turkey hunting.
(viii) Turkey hunting is conducted according to season dates and bag limits provided in the annual refuge public use brochure.
(ix) During the quota gun deer hunts, only hunters possessing a valid quota gun deer permit (FWS Form 3-2439) may use the refuge and only for the purposes of deer hunting and the incidental take of allowable species.
(x) During the quota gun turkey hunts, we close the refuge Wildlife Auto Drive Road to other hunting and public entry, and only hunters possessing a valid quota gun turkey permit (FWS Form 3-2439) may use that area of the refuge and only for the purposes of turkey hunting.
(xi) We prohibit the use of dogs for deer hunting.

C. Refuge-Specific Fishing Regulations

To ensure compatibility with refuge purposes and the mission of the NWRS, fishing must be conducted in accordance with State and Federal regulations, as supplemented by refuge-specific regulations, and information sheets/brochures. Stipulations are detailed in the Fishing Compatibility Determination (Appendix C). The following fishing regulations apply at Big Lake NWR:

Sport fishing. We allow sport fishing, frogging, and crawfishing on designated areas of the refuge subject to the following conditions:

4) *Sport fishing*. We allow sport fishing, frogging, and crawfishing on designated areas of the refuge subject to the following conditions:

(i) The conditions set forth at paragraphs (2)(ii), (x), (xi), (xii) through (xv), and (b)(3)(ix) and (x) above apply.
(ii) Anglers may launch boats only in designated areas.
(iii) We allow frogging and crawfishing for personal use only. All crawfish traps must have the owner's Arkansas Game and Fish Commission license customer identification number permanently affixed.
(iv) We prohibit the take or possession of turtles and/or mollusks (see §27.21 of this chapter).
(v) We allow fishing, frogging, and crawfishing on all refuge waters from March 1 through October 31.
(vi) We allow fishing in the Sand Slough-Mud Slough area from November 1 through February 28 only with the use of nonmotorized boats and electric trolling motors; anglers may enter this area at 4 a.m. and must depart by 1 hour after legal sunset.
(vii) We prohibit climbing onto or fishing from any water control structure and associated wingwalls and fences, or the top of the Floodway Dam south of Highway 18.
(viii) We prohibit tournament fishing on the refuge.

D. Relevant State Regulations

The refuge conducts its hunting and fishing program generally within the framework of State regulations. Hunting and fishing on the refuge is in some cases more restrictive than State of Arkansas. Additionally, the refuge coordinates with the State as needed to maintain regulations and programs that are as consistent as feasible with the State's management programs. All relevant refuge-specific regulations pertaining to hunting and fishing are listed above in Section IV, subsection B.

- Hunter orange or chartreuse must be worn during all quota deer hunts and in accordance with AGFC regulations.
- The use of natural scents or lures that contain natural deer or elk urine or other biofluids is prohibited.
- Reporting Harvest – Hunters will be required to check harvest of deer and turkey according to AGFC regulations.

E. Other Refuge Rules and Regulations for Hunting and Fishing

- Building or hunting from permanent blinds or stands is prohibited.
- Possession or use of bait (feed, grains, etc.) or salt (or minerals) to lure or attract wildlife is prohibited.
- No hunting from mowed or graveled roads.

- Driving or screwing any object into a tree or hunting from a tree in which an object has been driven or screwed in is prohibited.
- Target practice and the non-hunting discharge of firearms is prohibited.
- Hunting from a vehicle or using a vehicle as a deer stand is prohibited.
- Cutting or defacing trees, shrubs, or other plants is prohibited.
  Artificial light may not be used to locate wildlife, except as authorized for fishing, frogging, and raccoon/opossum hunting.
- Climbing onto and/or fishing from any water control structure and associated wingwalls and fences, or the top of the Floodway Dam south of Highway 18, or entering any closed areas (areas are designated by signs) are prohibited.
- Taking or possessing turtles or mollusks is prohibited.
- No fishing tournaments are allowed.

V. Public Engagement

A. Outreach for Announcing and Publicizing the Hunting and Fishing Program

The Refuge maintains a mailing list, for information bulletin purposes, to local newspapers, radio, and websites. Special announcements and articles may be released in conjunction with hunting and fishing seasons. In addition, information about the hunt will be available at Big Lake NWR headquarters or on the Big Lake NWR website.

B. Anticipated Public Reaction to the Hunting and Fishing Program

Based on the comments received during the CCP (2009) and given that hunting and fishing have already been allowed on Big Lake NWR for more than 90 years, little negative public reaction is expected. Hunting and fishing are important economic and recreational uses of Arkansas' natural resources. The public is expected to welcome increased opportunity for hunting and fishing on Big Lake NWR (See Appendix D for public comment and Service Response).

C. How Hunters and Anglers Will Be Informed of Relevant Rules and Regulations

General information regarding hunting, fishing, and other wildlife-dependent public uses can be obtained at Big Lake NWR headquarters at 2274 Highway 18, Manila, AR 72442 or by calling (870)-564-2429. Dates, brochures, hunting unit directions, maps, and permit requirements about the hunt will be available on the station website at: https://www.fws.gov/refuge/big_lake/ and at the Refuge Visitor Center. Information on hunting and fishing in Arkansas can be found at https://www.agfc.com/ or by calling 800-364-4263.

VI. Compatibility Determination

Hunting and fishing are compatible with the purposes of the refuge. See attached Hunting and Fishing Compatibility Determinations (Appendices B and C).

VI. References

U.S. Fish and Wildlife Service. 1985. Big Lake NWR Hunt Plan. Atlanta, GA: U.S. Department of the Interior Fish and Wildlife Service, Southeast Region.

U.S. Fish and Wildlife Service. 1987. Big Lake NWR Fish Plan. Atlanta, GA: U.S. Department of the Interior Fish and Wildlife Service, Southeast Region.

U. S. Fish and Wildlife Service. 2009. Comprehensive Conservation Plan. Central Arkansas National Wildlife Refuge Complex Bald Knob, Big Lake, Cache River, and Wapanocca National Wildlife Refuges. Atlanta, GA. 523 pp.