#### DRAFT COMPATIBILITY DETERMINATION

**USE:** Hunting

**REFUGE NAME:** West Tennessee National Wildlife Refuge Complex (West Tennessee NWR Complex or Complex) comprises five National Wildlife Refuges: Reelfoot, Lake Isom, Chickasaw, Lower Hatchie, and Hatchie NWRs.

# **DATE ESTABLISHED:**

Reelfoot NWR – August 28, 1941

Lake Isom NWR – May 10, 1935

Chickasaw NWR – August 5, 1985

Lower Hatchie NWR – June 19, 1980

Hatchie NWR – November 16, 1964

### **ESTABLISHING AND ACQUISITION AUTHORITIES:**

Reelfoot NWR – Migratory Bird Conservation Act of 1929 (16 U.S.C. § 715d), Refuge Recreation Act (16 U.S.C. § 460k-460k-4), Endangered Species Act of 1973 (16 U.S.C. Sec. 1534)

Lake Isom NWR – Executive Order 7953, Migratory Bird Conservation Act of 1929 (16 U.S.C. § 715d), Refuge Recreation Act (16 U.S.C. § 460k-460k-4)

Chickasaw NWR – Migratory Bird Conservation Act of 1929 (16 U.S.C. § 715d), Fish and Wildlife Act 1956 (16 U.S.C. § 742f), Refuge Recreation Act (16 U.S.C. § 460k-460k-4)

Lower Hatchie – Migratory Bird Conservation Act of 1929 (16 U.S.C. § 715d), Fish and Wildlife Act 1956 (16 U.S.C. § 742f), Refuge Recreation Act (16 U.S.C. § 460k-460k-4)

Hatchie NWR - Migratory Bird Conservation Act of 1929 (16 U.S.C. § 715d)

# **REFUGE PURPOSES:**

"... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. § 715d (Migratory Bird Conservation Act)

- "... suitable for— (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species
- ..." 16 U.S.C. § 460k-1 " . . . the Secretary ... may accept and use ... real ... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors . . ." 16 U.S.C. § 460k-2 (Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended).
- "... for the development, advancement, management, conservation, and protection of fish and wildlife resources . . ." 16 U.S.C. § 742f (a) (4) "... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude . . ." 16 U.S.C. § 742f (b) (1) (Fish and Wildlife Act of 1956)

# NATIONAL WILDLIFE REFUGE SYSTEM (REFUGE SYSTEM) MISSION:.

The mission of the Refuge System, as defined by the National Wildlife Refuge System Improvement Act of 1997 (Improvement Act), is:

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

# **DESCRIPTION OF USE:**

- (a) What is the use? Is the use a priority public use? The use is an existing, priority public use that includes public hunting of white-tailed deer, squirrel, rabbit, quail, beaver, coyote, raccoon, opossum, duck, goose, coot, mergansers, snipe, woodcock, turkey, and dove on Chickasaw, Lower Hatchie, and Hatchie NWRs; and white-tailed deer, squirrel, rabbit, beaver, coyote, raccoon, opossum, and turkey on Reelfoot and Lake Isom NWRs. Hunting was identified as one of six priority public uses of the Refuge System by the Refuge System Administration Act of 1966, as amended by the Improvement Act (Public Law 105-57), when found to be compatible.
- **(b)** Where would the use be conducted? The Complex is open to hunting on refuge lands except those areas specifically closed according to the annual Public Use Regulations brochure. Hunt areas, seasons, dates, maps, and species can be found in each refuges' Public Use Regulations brochure (Reelfoot/Lake Isom, Chickasaw, Lower Hatchie, Hatchie). Zoning of the refuges is used to minimize conflicts between hunters and other user groups. These units are modified when needed for biological, administrative or safety reasons. Currently hunting is open on most lands of the Complex. This determination applies to the entire Complex and reflects anticipated impacts to all of the refuges.
- **(c)** When would the use be conducted? Hunting seasons are established annually as agreed upon during annual hunt coordination meetings with Tennessee Wildlife Resources Agency (TWRA) personnel. Seasons mostly fall within TWRA framework but sometimes are more

restrictive than the state. Hunters would be able to access the refuge no more than two hours before legal sunrise and no more than two hours after legal sunset (except for permitted nighttime activities) during seasons open to hunting as specified in the annual Public Use Regulations brochure. Hunt season dates, hunting hours, seasonal zone closures and other regulations pertaining to timing of hunting are provided in an annual public use brochure and on the refuge website for each refuge ( <a href="Reelfoot/Lake Isom">Reelfoot/Lake Isom</a>, <a href="Chickasaw">Chickasaw</a>, <a href="Lower Hatchie">Lower Hatchie</a>).

# (d) How would the use be conducted?

Hunting is conducted in accordance with applicable state and Federal regulations and refuge-specific regulations published in 50 CFR 32. Hunting seasons, bag limits, rules, and other regulations are published for each refuge in annual refuge hunting brochures. Refuge units designated as hunting units will be open to hunting unless otherwise posted.

Hunters would be required to sign and carry a Public Use Regulations brochure with them on their person. The brochure will cover all refuge regulations, hunting units, and species. The brochure can be obtained by visiting the refuge headquarters, most refuge parking lots, local sporting goods stores, or by going online to the refuge's website. Hunters would need to attain all other applicable local, state and/or Federal licenses, permits, and stamps in accordance with local, state, and Federal laws. A complete listing of all refuge regulations can be found in the wildlife and Fisheries Code of Federal Regulations (50CFR) and annual Public Use Regulations brochures.

Refuge properties within the Complex will be open to hunting no more than two hours before legal sunrise and no more than two hours after legal sunset, except for permitted nighttime activities. Primary access is by vehicle on roads open to vehicular traffic and by foot, but also by boats and bicycles.

# (e) Why is the use being proposed?

Hunting is an approved and existing use on refuges within the Complex (U.S. Fish and Wildlife Service [USFWS] 2006a-d) and a legitimate wildlife-dependent recreational use that, when compatible, is one of the priority public uses of the Refuge System, as defined in the Refuge System Administration Act, as amended by the Improvement Act (Public Law 105-57). Hunting is a legitimate and appropriate use of refuges within the Complex as supported by the Comprehensive Conservation Plans (CCPs) and Finding of No Significant Impacts (FONSIs, USFWS 2006a-d). Hunting is a healthy, traditional, recreational use of renewable natural resources that is deeply rooted in America's heritage. Hunting is also an important wildlife management tool.

The proposed action will promote a Refuge System priority public use and further align the refuge with the Department of the Interior's Secretarial Order 3356 which directs the Service to enhance and expand public access to lands and waters on national wildlife refuges for hunting, fishing, recreational shooting, and other forms of outdoor recreation. Also, hunting will promote the stewardship of our natural resources and increase the public's appreciation and support for the refuges within the Complex.

Hunting fulfills Public Use Goal 7 in the Refuge CCPs (2006a-d) to provide quality hunting opportunities. In some cases, hunting is used as a management tool to regulate wildlife populations, such as white-tailed deer.

# **AVAILABILITY OF RESOURCES:**

Hunt administration costs for the Complex, including salary, equipment, maintenance, monitoring, and communication with the public, will be approximately \$31,000 annually. Costs associated with updating signage and maintaining access will be funded by the annual operating budget (visitor services and/or maintenance funds, as appropriate).

Table 1. Funding and Staffing Requirements

Identifier	Cost		
Staff (maintenance workers, biologist, and refuge managers)	\$18,000		
Maintain roads, parking lots*	\$5,500		
Brochures/self-clearing permits (funded through quota hunt fees)	\$6,000		
Maintain signage	\$1,500		
Total Annual Cost	\$31,000		
*Refuge trails and roads are maintained for a variety of activities.			

#### ANTICIPATED IMPACTS OF THE USE:

West Tennessee NWR Complex has been open to hunting for decades with no noticeable adverse impacts on the population of species hunted or non-target wildlife. While managed hunting opportunities may result in localized disruption of individual animals' daily routines, no noticeable adverse effect on populations has been documented; however, should it become necessary, the Complex has the latitude to adjust hunting seasons annually or to close the refuges entirely if there are safety issues or other concerns that merit closure. This latitude, coupled with monitoring of wildlife populations and habitat conditions by the Service and TWRA, will ensure that long-term negative impacts to wildlife populations and habitats on the Complex are unlikely. Should hunting pressure increase on the refuges, alternatives such as reducing the number of hunt days or restrictions on specific refuge units open to hunting can be used to limit impacts.

# **Migratory Birds**

To minimize and monitor impacts to waterfowl, each year Service biologists and others gather, analyze, and interpret biological survey data and provide this information to all those involved in the process through a series of published status reports and presentations to Flyway Councils and other interested parties (USFWS 2019).

Because the Service is required to take abundance of migratory birds and other factors into

consideration, the Service undertakes a number of surveys throughout the year in conjunction with the Canadian Wildlife Service, state and provincial wildlife-management agencies, and others. To determine the appropriate frameworks for each species, the Service considers factors such as population size and trend, geographical distribution, annual breeding effort, the condition of breeding and wintering habitat, the number of hunters, and the anticipated harvest. After frameworks are established for season lengths, bag limits, and areas for migratory game bird hunting, migratory game bird management becomes a cooperative effort of state and Federal Governments. After Service establishment of final frameworks for hunting seasons, the states may select season dates, bag limits, and other regulatory options for the hunting seasons. States may always be more conservative in their selections than the Federal frameworks but never more liberal. Season dates and bag limits for NWRs open to hunting are never longer or larger than the state regulations. Chickasaw, Lower Hatchie and Hatchie NWR, regulations are more restrictive for waterfowl than the state allows by ending hunting at noon. We allow waterfowl hunting every day of the 60-day state season and therefore must minimize disturbance during the hunting season by limiting hours of day that boat and hunting disturbance can occur. The negative effects of disturbance to wintering waterfowl are discussed in the refuges' CCPs (USFWS 2006a-d) and Habitat Management Plans (USFWS 2006e-h).

National Environmental Policy Act (NEPA) considerations by the Service for hunting migratory game bird species are addressed through the programmatic document "Second Final Supplemental Environmental Impact Statement: Issuance of Annual Regulations Permitting the Sport Hunting of Migratory Birds (EIS 20130139)," filed with the Environmental Protection Agency on May 24, 2013, and addresses NEPA compliance by the Service for issuance of the annual framework regulations for hunting of migratory game bird species. A notice of availability was published in the Federal Register on May 31, 2013 (78 FR 32686), and Record of Decision on July 26, 2013 (78 FR 45376). NEPA compliance is also addressed for waterfowl hunting frameworks through the annual preparation of separate environmental assessments, the most recent being "Migratory Game Bird Hunting Regulations 2019-20," with its corresponding June 14, 2018, FONSI.

Although woodcock are showing declines in numbers on their breeding grounds, habitat loss is considered to be the culprit, not hunting. This assertion was tested in a study conducted by the U.S. Geological Patuxent Wildlife Research Center in 2005 (McAuley *et al.* 2005). Results showed no significant differences in woodcock survival between hunted and non-hunted areas. Furthermore, the authors concluded that hunting was not having a considerable impact on woodcock numbers in the Northeast (McAuley *et al.* 2005). Very little woodcock habitat is available on the Complex, and few hunters attempt to harvest woodcock; therefore, woodcock hunting should have no adverse cumulative effects on their local, regional or flyway populations.

Snipe and coot hunting are not popular in West Tennessee and few hunters participate. Expected harvest numbers is less than 10 for each species. In 2017/2018, statewide harvest estimates in Tennessee for snipe and coot were 0 (Raftovich et. al. 2019).

Hunting migratory birds on the refuge would make the birds more skittish and prone to disturbance, reduce the amount of time they spend foraging and resting, and alter their habitat usage patterns (Raveling 1979, Owen 1973, Pease *et al.* 2005, St. James *et al.* 2013, Shirkey *et* 

al. 2020). Disturbance to non-target birds and resident wildlife would likely occur from hunting and associated hunter activity but would be short-term and temporary. Because migratory bird hunting occurs during the non-breeding season for non-target and target birds, the effects on migratory birds are expected to be minimal.

# **Big Game**

Deer hunting does not have regional population impacts due to restricted home ranges. The average home range of a male deer in Mississippi is  $1,511 \pm 571$  hectares. (Mott *et al.* 1985). Therefore, only local impacts occur. Deer hunting has been occurring on lands adjacent to the refuge for decades. TWRA estimates 160,254 deer were harvested throughout the state in the 2020-2021 season (TWRA 2021). There were 413 deer harvested on the Complex in the 2020/2021 season, representing less than approximately a quarter of one percent of the statewide harvest.

An overabundance of deer can have a negative impact on refuge habitats, through browse lines and a reduced understory. The Complex has been underplanting oaks over the last decade. If deer numbers were left unchecked, the underplanted oaks would be susceptible to the over grazing caused by large numbers of deer. Hunters help reduce the deer population numbers to achieve the adequate carrying capacity. Deer hunting on the West Tennessee Complex should not have negative cumulative impacts on deer populations.

A total of 32,755 turkey were harvested in Tennessee during the 2021 turkey season and, of those, 51 were harvested on the Complex (TWRA 2021). This is approximately 1/10 of one percent of the state harvest, therefore turkey hunting on the Complex should not have a negative cumulative impact on turkey populations. Only bearded turkeys may be harvested, which limits the disturbance to males. This season dates, which are limited to the spring season on the refuge, occur before many of the hens start nesting.

#### **Small Game**

Since squirrels, rabbit, raccoon, and opossum cannot be affected regionally by refuge hunting because of their limited home ranges, only local effects will be discussed. Opossum and raccoon are hunted primarily at night. Raccoons are more sought after than opossums by the public. Hunting helps regulate opossum and raccoon populations; however, unless the popularity of this type of hunting increases, raccoon and opossum numbers will always be higher than desired. When these species become extremely overabundant, diseases such as distemper and rabies reduce the populations. Waiting for disease outbreak to regulate their numbers, however, can be a human health hazard. Adverse impacts to raccoon and opossum are unlikely considering they reproduce quickly, are difficult to hunt due to their nocturnal habits, and are not as popular for hunting as other game species.

Studies have been conducted outside the State of Tennessee to determine the effects of hunting on the population dynamics of small game. Results from studies have consistently shown that small game, such as rabbits and squirrels, are not affected by hunting but rather are limited by food resources (Yarrow and Yarrow 1999). Gray squirrels, fox squirrels, and eastern cottontails

are prolific breeders, and their populations have never been threatened by hunting in Tennessee even prior to hunting regulations as we know them today.

Incidental take of coyotes and beaver cannot be affected regionally by refuge hunting because of their limited home ranges, therefore only local effects will be discussed. Coyotes depredate small mammals, songbirds and their nests, turkey and quail nests, and any other animal they opportunistically encounter. When coyote numbers are high, local wildlife populations can be negatively affected (Kilgo *et al* 2010). Coyotes are probably the most resilient species in North America. Today regulated hunting has no negative cumulative impact on their populations. Beaver adversely affect the refuges when they impound thousands of acres of forest causing large die-offs of timber (Dickson 2001, Baker and Hill 2003, USDA 2015). Hunting of both coyotes and beaver to keep populations lower is beneficial in helping meet refuge objectives.

# **Cumulative Impacts**

Cumulative impacts on the environment result from incremental impacts of a proposed action when these are added to other past, present, and reasonably foreseeable future actions. While cumulative impacts may result from individually minor actions, they may, viewed as a whole, become substantial over time. The Complex hunt program is designed to be sustainable through time, given relatively stable conditions, particularly because of close coordination with TWRA.

The cumulative impacts of hunting on white-tailed deer, turkey, quail, merganser, squirrel, rabbit, beaver, coyote, raccoon, opossum, duck, goose, coot, snipe, woodcock, and dove populations at the refuge are negligible. The proportion of the refuges' harvest of these species is negligible when compared to local, regional, and statewide populations and harvest.

Because of the regulatory process for harvest management in place within the Service, the setting of hunting seasons largely outside of the breeding seasons of resident and migratory wildlife, the ability of individual refuge hunt programs to adapt refuge-specific hunting regulations to changing local conditions, and the wide geographic separation of individual refuges, we anticipate no direct or indirect cumulative impacts on resident wildlife, migratory birds, and non-target wildlife by hunting on the refuges within the West Tennessee Complex.

Increases in foot traffic and vehicle traffic are associated with hunting; however, the cumulative impacts are negligible. Visitors usually spatially distance across the units and vehicles are limited to paved or gravel roads. Other competing public uses are managed by Special Use Permit and/or temporally and spatially, which minimizes the overlap in user groups.

#### **PUBLIC REVIEW AND COMMENT:**

This draft compatibility determination was distributed for public review and comment for a period of 14 days from September 13 through September 26, 2021. Availability of this Compatibility Determination was distributed through local media, the refuge website, and at the refuge headquarters/visitor center. Comments received will be published here in the final document. Public involvement, Tribal engagement, and interagency coordination related to

hunting were also conducted during the planning process for the Reelfoot/Lake Isom, Chickasaw, Hatchie, and Lower Hatchie NWRs CCPs, EAs, and FONSIs (USFWS 2005a-d and 2006e-h) and refuge step-down management plans (HMPs, Hunting and Fishing plans, EAs, and FONSIs).

<u>DET</u>	ERMINATION (CHECK ONE BELOW):
	Use is not compatible
X	Use is compatible, with the following stipulations

### STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

To ensure compatibility with the purposes of the refuges and the mission of the Refuge System, hunting can occur at West Tennessee Complex in accordance with state and Federal regulations. Refuge-specific regulations ensure hunting occurring on refuges in the complex will not interfere with the mission of the National Wildlife Refuge System or the purposes of the refuges. Those station specific regulations are listed below. This will ensure that wildlife and habitat management goals are achieved and that the program is providing a safe, high-quality hunting experience for participants. The stipulations necessary to ensure compatibility are encompassed in the annual hunting regulations for each refuge (Reelfoot/Lake Isom, Chickasaw, Lower Hatchie, Hatchie). This hunting program will be monitored and potentially modified or eliminated if any the program's components are found not compatible.

# **JUSTIFICATION:**

Hunting is a priority wildlife-dependent use for the Refuge System through which the public can develop an appreciation for fish and wildlife. It is a legitimate and appropriate use of the refuges as supported by the Complex's CCPs and FONSIs (USFWS 2006a-d). Service policy is to provide expanded opportunities for wildlife-dependent uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management (Executive Order 12996 1996).

Hunting satisfies a recreational need, and hunting of certain species on NWRs is also an important, proactive management action that can prevent overpopulation, spread of disease, and the deterioration of habitat. Disturbance to other species will occur, but this disturbance is generally short-term. Suitable habitat exists on refuge lands to support hunting as proposed.

This activity will not conflict with any of the other priority public uses or adversely impact biological resources; therefore, through this compatibility determination process, we have determined that hunting on the refuges, in accordance with the stipulations provided above, is a compatible use that will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuges within the West Tennessee Complex.

Hunting is a very popular and traditional wildlife-dependent use by the public that has been occurring for centuries in this area. Hunting on private land in this region is becoming less available to most people due to the costs associated with leasing hunting rights—memberships in hunting clubs can range from a couple of thousand to tens of thousands of dollars a year. The Complex often attracts those hunters who cannot afford to join a hunting club. Hunting is an existing use of the West Tennessee Complex refuges and was analyzed and found compatible in the refuges' CCPs (USFWS 2006a-d).

NEPA COMPLIANCE FOR	R REFUGE USE	(Check one below):
•		,

	Categorical Exclusion Without Environmental Action Statement
X	Categorical Exclusion and Environmental Action Statement
	Environmental Assessment and Finding of No Significant Impact
	Environmental Impact Statement and Record of Decision

# **LITERATURE CITED:**

- Baker, B. W., and E. P. Hill. 2003. Beaver (Castor canadensis). Pages 288-310 in G. A. Feldhamer, B. C. Thompson, and J. A. Chapman, eds. Wild mammals of North America: Biology, management, and conservation. Second edition. The Johns Hopkins University Press, Baltimore, MD.
- Dickson, J. G. 2001. Early History. Pp. 20–30 in J. Dickson, ed. Wildlife of the Southern Forests: Habitat and management. Hancock House, Blaine, Washington.
- McAuley, D. G, J. R. Longcore, D. A. Clugston, R. B. Allen, A. Weik, S. Staats, G. F. Sepik, and W. Halteman. 2005. Effects of hunting on survival of American woodcock in the northeast. *Journal of Wildlife Management* 69(4):1565–1577.
- Mott, S. E., R. L. Tucker, D. C. Guynn, and H. A. Jacobson. 1985. Use of Mississippi bottomland hardwoods by white-tailed deer. Proceedings of the Southeast Association of Fish and Wildlife Agencies 39:403-411.
- Kilgo, J. C., H. S. Ray, C. Ruth and K. V. Miller. 2010. Can coyotes affect deer populations in Southeastern North America? *Journal of Wildlife Management* 74(5):929-933.
- Owen, M. 1973. The management of grassland areas for wintering geese. Wildfowl 24:123-130.
- Pease, M. L., R. K. Rose, and M. J. Butler. 2005. Effects of human disturbances on the behavior of wintering ducks. *Wildlife Society Bulletin* 33:103-112.

- Raftovich, R. V., K. K. Fleming, S. C. Chandler, and C. M. Cain. 2019. Migratory bird hunting activity and harvest during the 2017-18 and 2018-19 hunting seasons. U.S. Fish and Wildlife Service, Laurel, MD, USA, 75 pp.
- Raveling, D. G. 1979. The annual cycle of body composition of Canada geese with special reference to control of reproduction. *Auk* 96:234-252.
- Shirkey, B. T., M. D. Palumbo, and J. W. Simpson. 2020. Land cover switching in Autumn by female mallards in Ohio. *Journal of Wildlife Management* 84(5):968-978.
- St. James, E. A., M. L. Schummer, R. M. Kaminski, E. J. Penny, and L. W. Burger. 2013. Effect of weekly hunting frequency on duck abundances in Mississippi Wildlife Management Areas. *Journal of Fish and Wildlife Management* 4:144-150.
- Tennessee Wildlife Resources Agency. Deer Harvest by County and WMA. 2021. https://hunterstoolbox.gooutdoorstennessee.com/?reportId=180
- U.S. Fish and Wildlife Service. 2006a. Chickasaw National Wildlife Refuge Comprehensive Conservation Plan. Atlanta, GA.
- U.S. Fish and Wildlife Service. 2006b. Hatchie National Wildlife Refuge Comprehensive Conservation Plan. Atlanta, GA.
- U.S. Fish and Wildlife Service. 2006c. Lower Hatchie National Wildlife Refuge Comprehensive Conservation Plan. Atlanta, GA.
- U.S. Fish and Wildlife Service. 2006d. Reelfoot and Lake Isom National Wildlife Refuge Comprehensive Conservation Plan. Atlanta, GA.
- U.S. Fish Wildlife Service. 2006e. Habitat Management Plan for Reelfoot/Lake Isom NWR. Obion County, TN.
- U.S. Fish Wildlife Service. 2006f. Habitat Management Plan for Chickasaw NWR. Lauderdale County, TN.
- U.S. Fish Wildlife Service. 2006g. Habitat Management Plan for Hatchie NWR. Haywood County, TN.
- U.S. Fish Wildlife Service. 2006h. Habitat Management Plan for Lower Hatchie NWR. Lauderdale County, TN.
- U.S. Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services. 2015. Environmental Assessment: Aquatic rodent damage management in Louisiana. Baton Rouge, LA, 142 pp.

- U.S. Fish and Wildlife Service. 2019. Waterfowl population status, 2019. Division of Migratory Bird Management, Laurel, Maryland, 69 pp.
- Yarrow, G. K., D. Yarrow, and Alabama Wildlife Federation. 1999. Managing Wildlife: On Private Lands in Alabama and the Southeast. Sweetwater Press, 1st. ed., pp. 588.

# **Approval of Compatibility Determination**

Project Leader		
West Tennessee NWR Complex	Signature	Date
Concurrence:		
Refuge Supervisor		
Area III, Interior Regions 2 and 4	Signature	Date
Concurrence:		
Regional Compatibility		
Coordinator, Interior Regions 2 and 4	4 Signature	Date
Concurrence:		
David Viker, Regional Refuge Chief		
National Wildlife Refuge System	Signature	Date
Interior Regions 2 and 4		
Mandatory 15-Year Reevaluation l	Date:	

- (a) Chickasaw National Wildlife Refuge—(1) Migratory game bird hunting. We allow hunting of duck, goose, coot, merganser, mourning dove, woodcock, and snipe on designated areas of the refuge subject to the following conditions:
- (i) You must possess and carry a signed refuge permit (signed refuge brochure) and comply with all permit provisions.
- (ii) We allow hunting for duck, goose, coot, and merganser from  $\frac{1}{2}$  hour before legal sunrise to 12 p.m. (noon). We allow hunters to access the refuge no more than 2 hours before legal sunrise.
- (iii) We close mourning dove, woodcock, and snipe seasons during all youth and muzzleloader hunts, and during the first 4 weeks of firearms deer seasons.
- (iv) You may use only portable blinds, and you must remove all boats, blinds, and decoys from the refuge by 1 p.m. each day (see §27.93 of this chapter).
- (2) *Upland game hunting.* We allow hunting of squirrel, rabbit, quail, coyote, beaver, raccoon, and opossum on designated areas of the refuge subject to the following conditions:
  - (i) The condition set forth at paragraph (a)(1)(i) of this section applies.
- (ii) We allow hunters to access the refuge no more than 2 hours before legal sunrise to no later than 2 hours after legal sunset, except that raccoon and opossum hunters may access the refuge from legal sunset to legal sunrise.
- (iii) We close squirrel, rabbit, and quail seasons during all youth and muzzleloader hunts, and during the first 4 weeks of firearms deer seasons.
- (iv) We close raccoon and opossum seasons on Friday and Saturday nights during all firearms, youth, and muzzleloader deer hunts and seasons, including the Friday night prior to any hunt or season that opens on a Saturday morning.
- (v) You may take coyote and beaver incidental to legal hunting activities with legal methods of take for those hunts.
- (3) *Big game hunting.* We allow hunting of white-tailed deer and turkey on designated areas of the refuge subject to the following conditions:
  - (i) The conditions set forth at paragraphs (a)(1)(i) and (a)(2)(ii) and (v) of this section apply.
- (ii) You may only participate in the refuge quota hunts with a special quota permit issued through random drawing (electronic form).

- (c) Hatchie National Wildlife Refuge—(1) Migratory game bird hunting. We allow hunting of duck, goose, coot, merganser, mourning dove, woodcock, and snipe on designated areas of the refuge subject to the following conditions:
- (i) You must possess and carry a signed refuge permit (signed refuge brochure) and comply with all permit provisions.
- (ii) We allow hunting for duck, goose, coot, and merganser from  $\frac{1}{2}$  hour before legal sunrise until 12 p.m. (noon). We allow hunters to access the refuge no earlier than 2 hours before legal sunrise.
- (iii) We close mourning dove, woodcock, and snipe seasons during all quota gun and youth deer gun hunts.
- (iv) You may use only portable blinds, and you must remove all boats, blinds, and decoys from the refuge by 1 p.m. each day (see §27.93 of this chapter).
- (2) *Upland game hunting.* We allow hunting of squirrel, rabbit, quail, coyote, beaver, raccoon, and opossum on designated areas of the refuge subject to the following conditions:
  - (i) The condition set forth at paragraph (c)(1)(i) of this section applies.
- (ii) We allow hunters to access the refuge no earlier than 2 hours before legal sunrise to no later than 2 hours after legal sunset, except that raccoon and opossum hunters may access the refuge from legal sunset to legal sunrise.
  - (iii) We close all small game hunts during the refuge deer quota and youth gun hunts.
- (iv) You may take coyote and beaver incidental to legal hunting activities with legal methods of take for those hunts.
- (3) *Big game hunting.* We allow hunting of white-tailed deer and turkey on designated areas of the refuge subject to the following conditions:
  - (i) The conditions set forth at paragraphs (c)(1)(i) and (c)(2)(ii) and (iv) of this section apply.
- (ii) You may only participate in the refuge deer quota hunts with a special quota permit (electronic form) issued through random drawing.
  - (d) Lake Isom National Wildlife Refuge. (1) [Reserved]
- (2) *Upland game hunting.* We allow hunting of squirrel, coyote, beaver, and raccoon on designated areas of the refuge subject to the following conditions:
- (i) You must possess and carry a signed refuge permit (signed refuge brochure) and comply with all permit provisions.
- (ii) We allow hunters to access the refuge no earlier than 2 hours before legal sunrise to no later than 2 hours after legal sunset, except that raccoon hunters may access the refuge from legal sunset to legal sunrise.

- (iii) You may take coyote and beaver incidental to legal hunting activities with legal methods of take for those hunts
- (3) Big game hunting. We allow only archery hunting for white-tailed deer on designated areas of the refuge subject to the following condition: The conditions set forth at paragraphs (d)(2)(i) through (iii) of this section apply.
- (e) Lower Hatchie National Wildlife Refuge—(1) Migratory game bird hunting. We allow hunting of duck, goose, coot, merganser, mourning dove, woodcock, and snipe on designated areas of the refuge subject to the following conditions:
- (i) You must possess and carry a signed refuge permit (signed refuge brochure) and comply with all permit provisions.
- (ii) We allow hunting for duck, goose, coot, and merganser from  $\frac{1}{2}$  hour before legal sunrise to 12 p.m. (noon). We allow hunters to access the refuge no earlier than 2 hours before legal sunrise.
- (iii) We close mourning dove, woodcock, and snipe seasons all youth and muzzleloader hunts, and during the first 4 weeks of firearms deer seasons.
- (iv) You may use only portable blinds, and you must remove all boats, blinds, and decoys from the refuge by 1 p.m. each day (see §27.93 of this chapter).
- (2) *Upland game hunting.* We allow hunting of squirrel, rabbit, quail, coyote, beaver, raccoon, and opossum on designated areas of the refuge subject to the following conditions:
  - (i) The condition set forth at paragraph (e)(1)(i) of this section applies.
- (ii) We allow hunters to access the refuge no more than 2 hours before legal sunrise to no more than 2 hours after legal sunset, except that raccoon and opossum hunters may access the refuge from legal sunset to legal sunrise.
- (iii) We close squirrel, rabbit, and quail seasons during all youth and muzzleloader hunts, and during the first 4 weeks of firearms deer seasons.
- (iv) We close raccoon and opossum seasons on Friday and Saturday nights during all firearms, youth, and muzzleloader deer hunts and seasons, including the Friday night prior to any hunt or season that opens on a Saturday morning.
- (v) You may take coyote and beaver incidental to legal hunting activities with legal methods of take for those hunts.
- (3) Big game hunting. We allow hunting of white-tailed deer and turkey on designated areas of the refuge subject to the following conditions:
  - (i) The conditions set forth at paragraphs (e)(1)(i) and (e)(2)(ii) and (v) of this section apply.

- (ii) You may participate in the refuge quota hunts only with a special quota permit (electronic form) issued through random drawing.
  - (f) Reelfoot National Wildlife Refuge. (1) [Reserved]
- (2) *Upland game hunting.* We allow hunting of squirrel, coyote, beaver, and raccoon on designated areas of the refuge subject to the following conditions:
- (i) You must possess and carry a signed refuge permit (signed refuge brochure) and comply with all permit provisions.
- (ii) We allow hunters to access the refuge no earlier than 2 hours before legal sunrise to no later than 2 hours after legal sunset, except that raccoon hunters may access the refuge from legal sunset to legal sunrise.
- (iii) You may take coyote and beaver incidental to legal hunting activities with legal methods of take for those hunts.
- (3) *Big game hunting.* We allow hunting for white-tailed deer and turkey on designated areas of the refuge subject to the following conditions:
  - (i) The conditions set forth at paragraphs (f)(2)(i) through (iii) of this section apply.
- (ii) You may participate in the refuge firearms deer and turkey quota hunts only with a special quota permit (electronic form) issued through random drawing.

Public Use Regulations Brochures

Reelfoot/Lake Isom NWR-<u>https://www.fws.gov/southeast/pdf/regulations/reelfoot-national-wildlife-refuge-public-use.pdf</u>

Chickasaw NWR-https://www.fws.gov/southeast/pdf/regulations/chickasaw-national-wildlife-refuge-public-use.pdf

Lower Hatchie NWR-<u>https://www.fws.gov/southeast/pdf/regulations/lower-hatchie-national-wildlife-refuge-public-use.pdf</u>

Hatchie NWR-https://www.fws.gov/southeast/pdf/regulations/hatchie-national-wildlife-refuge-hunt-fish.pdf