

DRAFT COMPATIBILITY DETERMINATION

USE: Fishing (Noncommercial)

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, 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? Noncommercial, recreational fishing is an approved and existing use on the West Tennessee NWR Complex. This use was evaluated and found compatible in conjunction with the refuges’ Comprehensive Conservation Plans (CCPs, U.S. Fish and Wildlife Service [USFWS] 2006a-d) and has been conducted on the Complex refuges since their founding. When determined to be compatible, fishing is identified as one of six priority public uses of the Refuge System by the National Wildlife Refuge System Administration Act of 1966 (NWRSA), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

(b) Where would the use be conducted? Noncommercial recreational fishing is allowed on all refuge waters, within the Complex, subject to various area/zone/temporal closures for the safety of the public and for protection of wildlife and habitat. (See refuge-specific public use brochures for regulations and maps: [Reelfoot/Lake Isom](#), [Chickasaw](#), [Lower Hatchie](#), [Hatchie](#).) Recreational fishing occurs in various habitat types, including bottomland hardwood forest, bald cypress/tupelo swamps, oxbow lakes, rivers, streams, lakes, and ponds.

(c) When would the use be conducted? Recreational fishing is conducted annually, seasonally, and daily within the framework seasons as established by the Tennessee Wildlife Resources Agency (TWRA) and according to refuge-specific regulations.

Fishing occurs during the day; however, certain areas of the Complex may be closed to fishing or to public entry, to limit disturbance to wildlife and to avoid hazardous conditions (e.g., road closures due to flooding, waterfowl sanctuary closures). Recreational fishing season dates, hours, seasonal zone closures, and other regulations pertaining to timing of recreational fishing are provided in an annual Public Use Regulations brochure for each refuge.

(d) How would the use be conducted?

Recreational fishing is conducted in accordance with applicable state and Federal regulations and refuge-specific regulations published in 50 CFR 32. Fishing seasons and refuge-specific regulations are published for each refuge in annual Public Use Regulations brochure, along with boat ramps, fishing piers, and water bodies. (See refuge-specific public use brochures: [Reelfoot/Lake Isom](#), [Chickasaw](#), [Lower Hatchie](#), [Hatchie](#).)

Recreational fishing is administered to ensure compatibility and to maintain a safe, high-quality, low-impact recreational opportunity. Fishing is primarily for bream (*Lepomis* spp.), crappie (*Pomoxis* spp.), bass (*Micropterus* spp.), and catfish (*Ictalurus* spp.). Certain areas of some refuges may be closed to fishing or to public entry to limit disturbance to wildlife and to avoid hazardous conditions (e.g., road closures due to flooding, waterfowl sanctuary closures). Bow fishing is allowed according to state and refuge-specific regulations. These activities are for personal use only. Tournament fishing is not allowed on the refuges.

Access to recreational fishing areas will be by foot, motor vehicle, bicycles, e-bikes, motorized boats, canoes, and kayaks, subject to refuge-specific regulations. These modes of travel, which are allowed to facilitate fishing (and other compatible, wildlife-dependent recreation), will be conducted in a manner that ensures compatibility. Motor vehicles (automobiles/trucks), bicycles and e-bikes will use established, open roads only. All-Terrain Vehicles/Utility-Terrain Vehicles (ATV/UTVs) are not permitted.

(e) Why is the use being proposed?

Recreational fishing on the West Tennessee NWR Complex is regulated to ensure compatibility with refuge purposes and mission of the Refuge System, to contribute to goals and objectives for aquatic species populations developed by the TWRA and the refuges' CCPs (USFWS 2006a-d), and to provide low-impact, high-quality, wildlife-dependent recreational opportunities for the resident and nonresident visitors on the refuges. Recreational fishing allows beneficial use of a renewable and sustainable natural resource. In the course of recreational fishing experiences on the Complex, participants should gain an increased understanding of fisheries and aquatic resource conservation practices, habitat/wildlife relationships, aquatic species behavior, the value of aquatic habitat management, and public use programs practiced on the refuges. Furthermore, most anglers consume the fish they catch and may have fish mounted for memorabilia of times afield. These opportunities inspire greater appreciation for fish and wildlife conservation on national wildlife refuges and stimulate anglers to more highly value and support national wildlife refuges, the Refuge System, and the U.S. Fish and Wildlife Service. Recreational fishing also combines the features of other priority public uses, such as wildlife observation and photography, and there is a valuable wildlife and environmental educational component involved, particularly when experienced anglers impart their knowledge and skills to less-experienced fishing partners. Fishing is often a family activity that facilitates a shared appreciation of conserved habitats and consumptive use of abundant, renewable natural resources.

Service policy directs refuges to evaluate refuge uses every 15 years for wildlife dependent recreational uses or when circumstances change, whichever is earlier (603 FW 2.11 H). Recreational fishing is an approved and existing use on the refuges within the Complex (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 NWRSA, as amended by the National Wildlife Refuge System Improvement Act (Public Law 105-57). Fishing is one of the most popular uses in the Complex. Demand for access to, and recreational fishing on, public lands appears to be increasing according to the [American Sportfishing Association](#). The refuges host abundant and sustainable populations of game fish and other aquatic species.

AVAILABILITY OF RESOURCES:

Fishing administration costs for the West Tennessee NWR Complex including salary, equipment, maintenance, monitoring, and communication with the public will be approximately \$15,000 annually. It is difficult to split costs associated with the fishing program from that of the hunting program; however, fishing is less expensive to administer. With fishing, there is no need for permits and manned check stations. 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)	\$8,000
Maintain roads, parking lots, boat ramps*	\$5,000
Brochures	\$1,000
Maintain signage	\$1,000
Total Annual Cost	\$15,000
<i>*Refuge trails, boat ramps, and roads are maintained for a variety of activities.</i>	

ANTICIPATED IMPACTS OF THE USE:

Revenues generated by angler trip expenses, such as purchases of gear, supplies, and fishing licenses, provide local and state economic benefits through sales and fuel taxes, employment, and installation of boat ramps and other supportive infrastructure that benefit anglers and non-anglers. Federal excise taxes on recreational fishing tackle, trolling motors, fish finders, and other equipment used for recreational fishing, as well as Federal fuel taxes on motorboat/small engine fuels, generate funds that support state fisheries conservation, research, management, stocking, and educational efforts that benefit fish populations and habitats and consumptive users of fisheries resources. According to statistics in the 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Department of the Interior et al. 2018), freshwater anglers spent \$29.9 billion on freshwater fishing trips and equipment.

Fishing invariably results in some negative effects to habitat and wildlife. Fish are killed; most are taken for consumption. Some individuals that are caught, handled, and released also will succumb. However, fisheries management is directed toward populations and not individuals, and fish are abundant. The endangered pallid sturgeon, which is known to occur in the Mississippi River, could be impacted by noncommercial fishing, however consultation with the Ecological Service Field Office has concluded (9-13-2021) that these impacts are not likely to affect the sturgeon. Some fish and other aquatic and terrestrial wildlife along anglers' routes of travel and at recreational fishing sites will be disturbed and disrupted from their normal activities (Cole and Knight 1990), but this disturbance and displacement is temporary, dispersed in its occurrence, and is not pervasive enough to result in significant negative impacts to populations. Noise pollution from motorized boats can occur, and its effect on wildlife and humans is dependent on various factors of time of day/night, habitat, and weather conditions. Small invertebrates and vegetation can be trampled and some surface effects such as trail compaction, bank erosion, and minor pollution from boat motors can occur. Limiting the number of visitors spatially and temporally, reduces many of these impacts. Currently, the recreational fishing use on the Complex is popular during spring and early summer, but anglers are usually well distributed throughout each refuge.

Waterfowl sanctuaries on the Complex provide wintering waterfowl with areas of escape and respite from disturbances. However, waterfowl using these refuges (in both sanctuary and non-sanctuary areas) typically do not spend 24 hours per day onsite; they move from place to place within the refuges and trade back and forth between the refuges and adjacent non-refuge lands. Fishing may be limited or closed during high waterfowl use periods in sanctuary areas.

Littering is typically evident around recreational fishing sites and travel routes. Unfortunately, littering results from all uses of the refuges. Litter is aesthetically unappealing and can be injurious to wildlife and aquatic organisms. Lead sinkers lost during fishing could be ingested by wildlife, possibly causing lead poisoning. Conflicts between anglers and non-fishing visitors to the refuges could occur. These conflicts typically involve the spontaneous disturbance of wildlife and fish with which anglers and non-anglers are both seeking contact. Additionally, there may be competition for use of popular recreational fishing spots. These conflicts are managed by monitoring and signage at high use areas and are considered to be minor.

All refuge recreational fishing on the Complex is coordinated with the staff of TWRA, who continually monitor fish populations, evaluate recreational fishing harvest, and determine the status of the fisheries across the state. Fishing harvests and aquatic wildlife populations are evaluated at the local, state, and national levels by various agencies and are regulated to ensure sustainability in perpetuity.

The Complex defers to TWRA for evaluation and determination of status and health of statewide fisheries and conducts seasons within state frameworks and seasons.

Cumulative Impacts

Effects that are minor when considered alone, but collectively may be important, are known as cumulative effects. Incremental increases in activities by people engaged in the variety of

allowed uses, including recreational fishing, on the Complex that continue unchecked potentially could result in cumulative detrimental consequences to wildlife and/or habitats. Refuge and TWRA staff monitor these activities to ensure wildlife and other refuge resources are not affected in a detrimental manner. Various methods, such as spatial and temporal restrictions, monitoring, and signage, are available to refuge managers and can be readily implemented to effectively manage participant numbers and activity patterns to maintain a compatible, high-quality, low-impact, and safe recreational fishing program on the Complex.

Recreational fishing conducted in accordance with state and Federal regulations is not expected to adversely affect fish and wildlife populations that occur on the Complex and may assist in maintaining desirable age structure in fish populations and promoting the biological integrity, diversity, and environmental health of the refuges. Recreational fishing is an activity that is monitored and regulated to maintain stability within fisheries and a healthy balance between fish populations and aquatic habitats. Cumulative impacts could occur from the combination of uses on the refuges including hunting, fishing, wildlife observation, photography, education, interpretation, habitat management, and research. Conflicting programs that occur in the same space and time can cause decreased satisfaction from user groups and increase disturbance to wildlife from frequent human visitation, consumptive or non-consumptive. The areas used by the public to fish and those areas frequented by users engaged in other activities are dispersed and often not overlapping temporally and spatially to such degree that there are any significant adverse cumulative effects to fish and wildlife and their habitat resources, public safety, or quality of the visitor experience.

Management actions, such as water management and timber management, are necessary aspects of refuge management; the conduct of these activities may not be conducive to fishing activities occurring at the same time and location. Certain research activities may require areas free of public use and disturbance to accomplish research objectives. The refuges consider all uses as activities that are planned and implemented on a yearly basis, and programs are structured to allow multiple uses to occur with minimal conflict. Recreational fishing seasons and locations allow for anglers to pursue this public use while other uses may be located in other areas of the Complex or at other times to reduce potential conflicts. There will be no adverse cumulative effects attributable to recreational fishing to refuge aquatic or terrestrial plant and wildlife communities.

In addition to environmental health, there are other cumulative beneficial effects to recreational fishing on the Complex. Increased wildlife-dependent recreation (e.g., fishing, hunting, wildlife observation and photography, environmental education); beneficial use of renewable, sustainable aquatic resources; and increased appreciation for fish and wildlife conservation and the role of national wildlife refuges in fish and wildlife conservation and habitat management and restoration are promoted through recreational fishing programs on national wildlife refuges. Additionally, increased revenues at the local, state, and national levels benefit economies and provide (Federal) funding for fisheries research, habitat management, acquisition of habitats, supportive infrastructure, and educational programs designed to raise public awareness and support for fisheries conservation at the local, state, and national levels.

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, refuge websites, and at refuge headquarters/visitor center. Comments received will be published here in the final document. Public involvement, Tribal engagement, and interagency coordination related to fishing were also conducted during the planning process for the Reelfoot/Lake Isom, Chickasaw, Hatchie, and Lower Hatchie NWRs CCPs, Environmental Assessments, and Finding of No Significant Impact (FONSIs, USFWS 2005a-d and 2006e-h) and refuge step-down management plans (Habitat Management Plans, Hunting and Fishing plans, Environmental Assessments, and FONSIs).

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

Use is compatible, with the following stipulations

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

Refuge-specific regulations (published annually in Public Use Regulations brochures for each refuge) ensure that recreational, noncommercial fishing occurring on refuges in the Complex will not interfere with the purposes of the refuges or the mission of the Refuge System. Station specific regulations are attached to this document. Recreational fishing is annually evaluated within the Complex and coordinated with, and approved by, TWRA. The Complex continues to adapt the recreational fishing program as necessary to maintain compatibility. The stipulations necessary to ensure compatibility are encompassed in the annual Public Use Regulations brochures ([Reelfoot/Lake Isom](#), [Chickasaw](#), [Lower Hatchie](#), [Hatchie](#)).

JUSTIFICATION:

Recreational fishing is a priority public use as defined by the NWRSA. Recreational fishing is legitimate and appropriate at West Tennessee NWR Complex as supported by the refuges' CCPs and FONSIs (USFWS 2006a-d). Recreational fishing may promote at least three other wildlife-dependent uses—wildlife observation, wildlife photography, and environmental education. U.S. Fish and Wildlife Service policy is to provide expanded opportunities for wildlife-dependent uses when compatible and consistent with sound fish and wildlife management and to ensure that they receive enhanced attention during planning and management. Allowing recreational fishing on the refuges not only satisfies a great demand by the public for use of public lands but also enables the refuges to connect with an influential constituency that highly values and supports national wildlife refuges. Recreational fishing on the Complex also inspires support for the art, science, and practice of fisheries conservation and management in the Refuge System. Compatible recreational fishing programs on refuges also promote the use of sustainable natural resources, not only for recreational and educational benefits, but also for human sustenance (i.e., food).

Furthermore, recreational fishing on the Complex is closely monitored and highly regulated and is designed to perpetuate fisheries populations and the habitats on which they and other wildlife depend. Recreational fishing can aid in maintaining a healthy balance between wildlife and their habitats while benefiting the human socio-economic environment. Although short-term disturbances and direct mortality occurs with the conduct of recreational fishing, these effects are short-term, generally dispersed in time and space, and do not result in detrimental long-term or significant cumulative impacts. Recreational fishing on the Complex is administered in a manner that minimizes conflicts with other wildlife-dependent uses and provides a safe, high quality, low-impact recreational use. Recreational fishing as described above will not adversely affect the biological and environmental health and integrity of the refuges within the Complex. Noncommercial fishing is an existing use of the West Tennessee Complex refuges and was analyzed and found compatible in the refuges' CCPs (USFWS 2006a-d). Through this compatibility determination process, we have determined that recreational fishing on the West Tennessee NWR Complex, as described herein and 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 NWR Complex.

NEPA COMPLIANCE FOR REFUGE USE (Check one below):

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

LITERATURE CITED:

Cole, D. N., and R. L. Knight. 1990. Impacts of recreation on biodiversity in wilderness. In *Proceedings of a Symposium on Wilderness Areas: Their Impact*, 33-40. Logan, UT: Utah State University.

U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2018. 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. 132 pp.
https://www.fws.gov/wsfrprograms/subpages/nationalsurvey/nat_survey2016.pdf

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 and Wildlife Service. 2000. Service Manual. 603 FW 2.11 H.
<https://www.fws.gov/policy/603fw2.html>

Chickasaw NWR

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

- (i) We allow fishing only with pole and line, or rod and reel.
- (ii) We allow the use of bow and arrow, or a gig, to take nongame fish on refuge waters.
- (iii) We prohibit taking frog or turtle on the refuge (see §27.21 of this chapter).

Hatchie NWR

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

- (i) We allow fishing only with pole and line, or rod and reel.
- (ii) We allow use of a bow and arrow, or gig, to take nongame fish on refuge waters.
- (iii) We prohibit taking frog or turtle on the refuge (see §27.21 of this chapter).
- (iv) We open Oneal Lake for fishing during a restricted season and for authorized special events.
- (v) We only allow fishing boats of 18 feet (5.5 meters) or less in length on refuge lakes.
- (d) *Lake Isom National Wildlife Refuge.* (1) [Reserved]

Lake Isom

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

- (i) We open all waters of Lake Isom to fishing only from March 16 through November 14, and from legal sunrise to legal sunset.
- (ii) We prohibit taking frog or turtle from refuge waters (see §27.21 of this chapter).
- (iii) We allow fishing only with pole and line, or rod and reel.
- (iv) We allow use of a bow and arrow, or a gig, to take nongame fish on refuge waters.

Lower Hatchie

(4) *Sport fishing.* We allow sport fishing on designated areas of the refuge and the Sunk Lake Public Use Natural Area as governed by State regulations and subject to the following conditions:

- (i) We allow fishing only from legal sunrise to legal sunset.

- (ii) We allow fishing only with pole and line, or rod and reel.
- (iii) We allow use of a bow and arrow, or a gig, to take nongame fish on refuge waters.
- (iv) We prohibit taking frog or turtle on the refuge (see §27.21 of this chapter).

Reelfoot NWR

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

- (i) We allow access to the Long Point Unit (north of Upper Blue Basin) for fishing from March 16 through November 14, and the Grassy Island Unit (south of Upper Blue Basin) for fishing from February 1 through November 14.
- (ii) We allow fishing on the refuge from legal sunrise to legal sunset.
- (iii) We prohibit taking of frog or turtle on the refuge (see §27.21 of this chapter).

Public Use Regulations Brochures

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

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

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

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