

Wildlife Observation and Photography Draft Compatibility Determination

Title

Draft Compatibility Determination for Wildlife Observation and Photography,
Tensas River National Wildlife Refuge.

Refuge Use Category

Wildlife Observation and Photography

Refuge Use Types

Wildlife Observation and Photography

Refuge

Tensas River National Wildlife Refuge (NWR, refuge)

Refuge Purposes and Establishing and Acquisition Authorities

In an effort to conserve the largest privately owned tract of bottomland hardwoods remaining in the Mississippi Delta, Congress authorized the Secretary of the Interior to establish the Tensas River NWR by Public Law 96-285 on June 28, 1980. Tensas River NWR was established for various purposes:

“For the preservation and development of the environmental resources ... to conserve the diversity of fish and wildlife and their habitat ... for the conservation and development of wildlife and natural resources, the development of outdoor recreation opportunities, and interpretative education,” and “to give special consideration to management of the timber on the refuge to insure [ensure] continued commercial production and harvest compatible with the purposes for which the refuge is established and the needs of fish and wildlife which depend upon the dynamic and diversified hardwood forest” (94 Stat. 595, dated June 28, 1980);

“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)];

“For conservation purposes” [7 U.S.C. 2002 (Consolidated Farm and Rural Development Act)]; and

“To conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants” [16 U.S.C. 1534 (Endangered Species Act of 1973)].

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, 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 (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes. Wildlife observation and photography were previously determined to be compatible in the Tensas River NWR Draft Comprehensive Conservation Plan (CCP) and associated Environmental Assessment (EA, U.S. Fish and Wildlife Service [USFWS] 2009b). This Compatibility Determination (CD) reviews and replaces the 2009 CD for wildlife observation and photography.

What is the use?

Wildlife observation includes viewing of fish, wildlife, plants, and their habitats by refuge visitors. Wildlife photography involves refuge visitation for the purpose of photographing natural or cultural resources (including fish, wildlife, plants, and their habitats) or public uses of those resources (not for commercial, news, or educational purposes). Wildlife observation and photography is identified in the Refuge System Improvement Act of 1997 as priority wildlife-dependent recreational uses provided they are compatible with the purpose for which the refuge was established (USFWS 2009a). Wildlife photography, including other image-capturing activities such as videography, has occurred on the refuge since its establishment. Wildlife photography has increased in popularity over the past few years; social media photography sites have recently been created as a result. These activities can be accomplished while driving, boating or walking on the refuge according to refuge regulations.

Is the use a priority public use?

Yes

Where would the use be conducted?

Wildlife observation and photography may occur refuge wide on any areas open to the public. The majority of user visits occur in the cooperatively farmed Greenlea Unit along the Wildlife Drive. The Wildlife Drive is approximately 4.5 miles long and is a heavily used area for wildlife observation and photography. The Hollow Cypress Observation Tower and Boardwalk behind the Visitor Center allow users to hike through the woods and view a portion of the Greenlea Unit. Other popular wildlife viewing areas include the Rainey Brake Rookery Observatory, Rainey Lake Piers and Rainey Lake Walking Trail. The Walking Trail allows visitors to access two piers for wildlife observation and fishing. The first pier is 0.2 miles away from the parking lot and the second is 0.7 miles away. These areas are designated in maps in the refuge General Recreation Brochure (USFWS 2014). The All-Terrain Vehicle (ATV) trails are widely distributed and facilitate access to remote areas of the refuge. These trails greatly improve opportunities for the proposed use and are designated in the Hunting and Fishing Regulations Brochure (USFWS 2021b). Fee title acres within the acquisition boundary have increased from 74,622 acres when the CCP was approved in 2009 to 77,868 acres today. To access the additional acres acquired, 3.36 miles of additional ATV trails were designated on existing roads of newly acquired lands. These trails slightly increased opportunities for wildlife observation and photography.

When would the use be conducted?

The refuge is open to wildlife observation and photography except during scheduled quota and open firearm deer hunts. Wildlife observation and photography may occur in conjunction with hunting as long as the individual is selected as a quota firearm lottery winner and follows guidelines established in the Hunting and Fishing Regulations Brochure (USFWS 2021b). ATV trails are open from October 1 until the last day in February and may be utilized to access more areas on the refuge with the purchase of a Annual Public Use Permit (USFWS 2021a). The refuge is open to wildlife observation and photography from one hour before sunrise until one hour after sunset. The Wildlife Drive in the Greenlea Unit is open from daylight until dark. It may be closed occasionally during July and August from daylight until 8 a.m. to conduct wood duck banding activities.

How would the use be conducted?

Wildlife observation and photography will primarily occur in vehicles along maintained roads, from boats, and on foot from observation towers, piers, hiking

trails and ATV trails. The 4.5 mile Greenlea Unit Wildlife Drive is probably the most popular area for wildlife viewing. Users typically drive through the farmed unit during daylight hours to see deer and other wildlife species. The production of agricultural crops in the fields and waterfowl impoundments set the stage for ample viewing opportunities as wildlife use these areas to forage. A raised observation tower at the end of the .25 mile Hollow Cypress Boardwalk overlooks a moist-soil impoundment where waterfowl, wading birds, shorebirds and deer can be seen with the use of mounted binoculars. The Rainey Lake Trail leads to a rookery and two piers and observation areas overlooking Rainey Lake. Alligators, herons, egrets, wood ducks, snakes, turtles and many other species are often seen from the pier and observation areas along this scenic lake. Wildlife observation and photography may also occur in conjunction with other wildlife dependent recreational activities such as hunting, fishing and boating, anywhere on the refuge. A free Self-Clearing Visitor Registration Permit is required for non-consumptive use, including wildlife observation and photography. Users can obtain Self-Clearing Daily Visitor Registration Permits at refuge entry points and at the Visitors Center. ATV use is allowed on the refuge during hunting season as specified in the Refuge Hunting and Fishing Regulations Brochure. Annual Public Use Permits (USFWS 2021a) are now required to operate an ATV instead of a separate ATV permit as in previous years.

Why is this use being proposed or reevaluated?

Wildlife observation and photography are being reevaluated pursuant to the National Wildlife Refuge System Improvement Act of 1997 (603 FW 2.11 H, USFWS 2000). These are wildlife-dependent activities, as specified in the Refuge System Improvement Act of 1997. These uses are also included in the visitor services goals and objectives identified in the final CCP for Tensas River NWR (USFWS 2009a):

Goal D: Develop and implement a quality, compatible wildlife-dependent public use program that leads to a greater understanding and appreciation of the natural resources found in the Tensas River Basin.

Objective D.5 – Wildlife Observation and Wildlife Photography Opportunities: Promote wildlife observation and wildlife photography, when compatible, to visitors of all ages and abilities.

The proposed use provides a way for people to connect with nature and fostering that connection is a priority of the U.S. Fish and Wildlife Service (Service). In support of this, a Southeast Regional Priority is to accomplish the Service mission by “connecting with people to inspire value, support, enjoy and benefit from the fish and wildlife resources and their habitats.” The Southeast Regional Priorities continues to state:

We will promote hunting, fishing, wildlife observation, and nature

photography as a means to connect people with nature and provide for sustainable resource utilization. Similarly, we will encourage environmental education programs and interpretive resources to raise awareness of our mission, how we implement it, and how it benefits the public. We must continue to expand on existing and seek out new outreach efforts and recreational opportunities in order to remain relevant to the American people and generate the appreciation and enthusiasm that is needed to fuel the next generation of conservationists (USFWS 2022).

Availability of Resources

The analysis of cost for administering and managing each use will only include the incremental increase above general operational costs that we can show as being directly caused by the proposed use. Adequate resources exist to properly develop, operate, and maintain the use in a way that will not materially interfere with or detract from fulfillment of the refuge purposes and the System mission.

One-time costs:

- Facilities – New construction costs of the Rainey Brake Trail and associated structures is \$177,168.78. The Dunlop Observation Blind is scheduled for replacement with a cost of \$60,219.19. The Mobility Impaired Observation Deck on the Hollow Cypress Observation Tower is scheduled for replacement which will cost \$53,301.47.

Annual/recurring expenses:

- Administration and Management - A full-time equivalent Employee (FTE) refuge manager and FTE park ranger each spend 520 hours per year collectively (\$18,000) to interact with the public and refer users to observation areas and hiking trails and produce planning documents, brochures and social media posts.
- Maintenance – A FTE Wage Grade and refuge staff spend approximately 80 hours a year (\$5,000) clearing fallen trees on the Rainey Lake Hiking Trail and mowing/ grading the Wildlife Drive.
- Monitoring – Two FTE Law Enforcement Officer's spend approximately 520 hours per year (\$27,000) monitoring individuals engaged in this use.
- Special Equipment – Six car counters are used across the refuge. The initial purchase cost was \$3,300.
- Improvements to Support the Use – None

Offsetting Revenue:

- The Annual Public Use Permit (USFWS 2021a) costs twenty dollars and provides recreation fee funding, which is used to maintain hiking trails, roads, ATV trails and purchase gravel for parking lots. This permit generates approximately \$80,000-100,000 dollars per year.

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purposes and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Resident and migratory wildlife will not be more than negligibly impacted by the action and have been dismissed from further analyses. This use was previously analyzed in an EA (USFWS 2009b) and then approved in the refuge CCP (USFWS 2009a). Furthermore, the Intra-Service Section 7 for the CCP supports the CCP’s Finding of No Significant Impact (USFWS 2009a).

Short-term impacts

Anticipated impacts were assessed with issuance of the preceding CD for this use and are provided in the EA for the Tensas River NWR Draft CCP (USFWS 2009b). That analysis is incorporated and summarized here. Public use has remained stable since the previous EA analysis; therefore, impacts have not substantially changed since that time and are not expected to increase significantly. Total non-consumptive annual use on the refuge has averaged 2,566 visits out of 17,776 annual total visits from 2014-2020 (Dickson, unpublished data).

As stated in the preceding CD and CCP:

The refuge provides habitat for resident and migratory wildlife. As a result of these activities, individual animals may be disturbed by human contact to varying degrees. Examples of potential disturbance include flushing of birds from feeding, resting, or nesting areas and trampling of plants by observers and photographers. Disturbance to trust species are expected to be minimal. Short-term impacts to facilities, such as roads and trails, can be avoided by special closures due to unsafe conditions. Construction of hiking trails, boardwalks, observation platforms and upgrading refuge roads will alter

small portions of the natural environment. Proper planning prior to construction, sediment retention, and grade stabilization features will reduce negative impacts to wetlands and species of special concern.

As stated in the EA (USFWS 2009b):

Public use visits for wildlife observation and photography are currently very low on the refuge. Wildlife observation and photography conducted in an ethical manner can have minimal to no impacts on wildlife. However, these uses can produce negative effects if public visitation levels increase or the public pursues rare species or approaches wildlife too closely (Pease et al., 2005). All these effects can differ depending upon which species are involved. Impacts can be mitigated by the use of established viewing areas and trails. Gabrielson and Smith (1995) suggested that some species are disturbed to a greater degree with unpredictable movement compared to humans following a particular trail.

The Rainey Lake Rookery Observatory is an established viewing area located so that visitors may take pictures of nesting wading birds. This blind is located near the rookery and obscures the birds' view of the observers and photographers minimizing disturbance. Species such as great and snowy egrets have successfully produced offspring in this rookery for decades.

The refuge imposes regulations to protect wildlife and their habitats. Most of the anticipated negative impacts, such as disturbance of wildlife and plants, littering and vandalism, would result because of violation of these regulations. Refuge management exerts spatial and seasonal control of public access to minimize disturbance during critical times, such as during nesting seasons and overwintering of waterfowl on the refuge. Flushing of adults from nests increases nest predation (Burger and Gochfeld 1998), and wintering waterfowl require energy stores for spring migration to their breeding grounds and reproduction (Ankney and MacInnes 1978). Primary waterfowl wintering areas, including the Greenlea Unit, are closed to visitors except for vehicular travel along the Wildlife Drive through the Greenlea Unit to provide sanctuary for wintering waterfowl. Disturbance of migratory waterfowl along the Wildlife Drive during critical wintering periods is possible, but waterfowl can easily move to other impoundments further away from the Wildlife Drive where disturbance is minimal. Vehicular and foot traffic is not allowed outside of the Wildlife Drive, and vehicular traffic is not allowed after dark.

Pease et al. (2005) found that humans walking, biking and "out of vehicle traffic" caused more disturbance to waterfowl than vehicular traffic. The number of birds that flew from human disturbance fell when the distance was over 100 meters. The

majority of the waterfowl impoundments are over 100 meters from the Wildlife Drive, thus minimizing disturbance while providing viewing opportunities. Bélanger and Bédard (1990) found energetic cost of man-induced disturbance to fall-staging greater snow geese (*Chen caerulescens atlantica*) in Québec. Two responses of birds to disturbance were considered (1) birds fly away but promptly resume feeding following a disturbance (Response A) and (2) birds interrupt feeding altogether (Response B). Daylight foraging time decreased by 4 to 51% depending on disturbance levels. They concluded that man-induced disturbance can have significant energetic consequences for fall-staging greater snow geese.

Overall, the existing research clearly demonstrates that disturbance from recreation activities always has at least temporary effects on the behavior and movement of birds within a habitat or localized area (Burger 1981, 1986; Klein 1993; Burger et al. 1995; Klein et al. 1995; Rodgers and Smith 1997; Burger and Gochfeld 1998). The findings that were reported in these studies are summarized as follows in terms of visitor activity and avian response to disturbance:

Presence: Birds avoided places where people were present and when visitor activity was high (Burger 1981; Klein et al. 1995; Burger and Gochfeld 1998).

Distance: Disturbance increased with decreased distance between visitors and birds (Burger 1986), though exact measurements were not reported.

Approach Angle: Visitors directly approaching birds on foot caused more disturbance than visitors driving by in vehicles, stopping vehicles near birds, and stopping vehicles and getting out without approaching birds (Klein 1993). Direct approaches may also cause greater disturbance than tangential approaches to birds (Burger and Gochfeld 1981; Burger et al. 1995; Knight and Cole 1995; Rodgers and Smith 1995, 1997).

Noise: Noise caused by visitors resulted in increased levels of disturbance (Burger 1986; Klein 1993; Burger and Gochfeld 1998), though noise was not correlated with visitor group size (Burger and Gochfeld 1998).

Short-term impacts to air quality may occur from car and boat engine exhaust when these vehicles are used for this activity; however, the level of use of this activity as measured since the use has been underway from establishment of the refuge is not significant enough to change air quality on a short-term basis.

Long-term impacts

There are no plans to construct new observation platforms or trails. For this reason, long-term negative impacts are not expected from disturbance or habitat modifications. Disturbance to wildlife is an unavoidable consequence of any

public use program regardless of the activity involved. The Wildlife Drive is the primary area for this activity and most of the waterfowl impoundments are over 100m away from the road. Foot traffic and nighttime activities are not allowed. As stated in the 2009 EA, “General wildlife observation may result in minimal disturbance to wildlife. If the refuge determines that impacts from the expected additional visitor uses are above the levels that are anticipated, those uses will be discontinued, restricted, or rerouted to other less sensitive areas.”

Even though the current level of use occurring at the refuge is low, appropriate solutions are developed to ensure a quality visitor experience while minimizing any negative human/wildlife interactions. Potential impacts to wildlife and habitats include disrupting foraging or resting activities, repetitive flushing of nesting birds, and stress or change in behavior due to group size and/or volume. Negative responses from wildlife due to human impacts can include, but are not limited, to:

- permanent disappearance of migratory bird species or individuals that are unable to adapt to the presence of people by habituation,
- increased nest predation due to the continued flushing of birds from their nests,
- change of patterns of behavior due to repetitive flushing,
- increase of energy demands for wildlife fleeing from human disturbance, and
- variation in feeding behavior (Burger and Gochfeld 1998).

The location of recreational activities and the size of participating groups are also important factors affecting the magnitude of disturbance. Miller et al. (1998) found that nesting success was lower near recreational trails, where human activity was common, compared to nests further from trails. A number of species have shown greater reactions when pedestrian use occurred off trail (Miller et al. 2001, Samia et al. 2015), and when pedestrians traveled in large groups (Beale and Monaghan 2004). The dense palmetto and wet forest conditions on Tensas River NWR discourage visitors from leaving trails and make the few existing trails preferred routes for traversing the refuge.

Additional impacts may be seen from the combination of uses on the refuge, including hunting, 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. Programs are structured spatially and temporally to allow multiple, high quality uses while not overlapping.

While anticipated adverse impacts are expected to be minimal for wildlife

observation and photography, stipulations are required to ensure that wildlife resources are adequately protected. Evaluations of all refuge uses will be conducted periodically to assess if objectives are being met and to ensure that the natural resources are not being adversely impacted. Beneficially, allowing wildlife observation and photography on the refuge allows people to connect with nature, thus fostering an appreciation of and public support for the refuge, the Refuge System, and natural resources as a whole.

Public Review and Comment

The draft CD will be available for public review and comment for 14 calendar days from May 3, 2022 to May 17, 2022. The public will be made aware of this comment opportunity through the refuge website (https://www.fws.gov/refuge/tensas_river/) and Tensas River Refuge Association Facebook page (<https://www.facebook.com/trrapage/>). A hard copy of this document will be posted at the Refuge Headquarters and Visitor Center (2312 Quebec Rd., Tallulah, LA 71282). It will be made available electronically on the refuge website. Please let us know if you need the documents in an alternative format. Concerns expressed during the public comment period will be addressed in the final CD.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

- A Self-Clearing Visitor Registration Permit is required for these activities.
- Regulations for wildlife observation and photography are included in the Refuge Hunting and Fishing Regulations Brochure.
- Special Use Permits are not required (in most cases) if participants:
 - a. are only using handheld recording equipment (e.g., camera, camcorder, smartphone, etc.) and tripods that are hand-carried,
 - b. do not use artificial lights or audio equipment which would cause disturbance, and
 - c. are observing all general, site-specific rules and regulations, and the conditions and stipulations in a current, site-specific, recreational photography compatibility determination.
- A Special Use Permit may be required if the following conditions occur:
 - a. The activity involves more extensive filming equipment than hand-

held video cameras or cameras supported by tripods that are hand-carried

- b. The number of people in the filming group or their associated equipment would interfere with the public's enjoyment of the resources, or with refuge staff operations.
 - c. The filmmaker plans to use artificial lights or audio equipment, which would cause disturbance.
 - d. The filming activity would violate the Endangered Species Act, the Migratory Bird Treaty Act, the Archaeological Resources Protection Act, the Wilderness Act, or any other federal statute or regulation.
 - e. The filming activity will occur during hours the refuge is closed to the public.
 - f. The filmmaker wishes to film inside a facility such as a visitor center or headquarters office.
 - g. The filmmaker wishes to film in an area off limits to the public.
 - h. For filming on refuges, the individual or group wishes to film in a way that does not adhere to the described use, including all stipulations, of recreational photography (as explained in the refuge-specific, recreational photography compatibility determination).
- The Greenlea Bend Wildlife Drive is only open from daylight until dark.
 - Individuals using an ATV for wildlife observation and photography must follow all specific refuge regulations and must possess a valid Annual Public Use Permit.

Justification

Wildlife observation and photography are identified in the Refuge System Improvement Act (1997) as priority wildlife-dependent recreational activities that should be promoted and expanded on refuges. The overall number of hiking trails and observation structures on close to 80,000 acres is minimal for such a large land base. Due to the remote nature of the refuge and relatively low number of non-consumptive visitors, adverse impacts from wildlife observation and photography are expected to be negligible. . The Wildlife Drive in the Greenlea Unit allows users optimal wildlife viewing opportunities in a waterfowl sanctuary by restricting access to vehicular traffic and daytime traffic only. The majority of the waterfowl impoundments are over 100 meters from the Wildlife Drive, thus further minimizing disturbance yet providing viewing opportunities. Any unreasonable harassment of wildlife would be grounds for the refuge manager to close the area to these uses or restrict the use to minimize harm. Provided wildlife observation and photography adheres to the refuge regulations, these activities are compatible with objectives set forth in the refuge's CCP (USFWS 2009a). At the current and proposed levels, providing opportunities for wildlife observation and photography

does not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best professional judgement, the Service has determined that providing opportunities for wildlife observation and photography at Tensas River NWR, as outlined in the refuge CCP, EA, and this CD and in accordance with the stipulations provided here, will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

The proposed uses can be categorically excluded from further National Environmental Policy Act (NEPA) analysis under 40 CFR 1508.4 (definition of categorical exclusion) and

516 DM 8.5 B (7): Minor changes in the amounts or types of public use on Service or state-managed lands, in accordance with existing regulations, management plans, and procedures.

Further, this action does not trigger an extraordinary circumstance as outlined under 43CFR§46.215. This use is consistent with the 2009 CCP and associated EA for Tensas River NWR. The environmental conditions and use have not changed substantially since the previous NEPA analysis and decision in 2009 (USFWS 2009b). This CD updates and replaces the previous 2009 CD.

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Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date