

# **Clarks River National Wildlife Refuge**

## **Findings Of Compatibility**

**July 5, 2017**

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**CLARKS RIVER NATIONAL WILDLIFE REFUGE  
APPROPRIATE USE and COMPATIBILITY DETERMINATION**

The legal provision (16 U.S.C. 668dd-668ee) states that lands within NWRS are closed to public use unless specifically and legally opened. No refuge use may be allowed unless it is determined to be compatible. A compatible use is one that, in the sound professional judgment of the refuge manager, will not materially interfere with or detract from the fulfillment of the mission of NWRS or the purposes of the refuge. All programs and uses must be evaluated based on the mandates set forth in the Improvement Act as follows:

- Contribute to ecosystem goals, as well as refuge purposes and goals;
- Conserve, manage, and restore fish, wildlife, and plant resources and their habitats;
- Monitor the trends of fish, wildlife, and plants;
- Manage and ensure appropriate visitor uses as those uses benefit the conservation of fish and wildlife resources and contribute to the enjoyment of the public; and,
- Ensure that visitor activities are compatible with refuge purposes.

The Improvement Act further identifies six priority wildlife-dependent recreational uses. These uses are hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation. As priority public uses on the NWRS, they receive priority consideration over other public uses in planning and management.

The public use program will be reviewed annually to ensure that it contributes to refuge objectives in managing quality recreational opportunities and protecting habitats, and is subject to modification if on-site monitoring by refuge personnel or other authorized personnel results in unanticipated negative impacts to natural communities, wildlife species, or their habitats. Refuge law enforcement officer(s) will promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions. Refuge law enforcement personnel will monitor all areas and enforce all applicable State and Federal regulations.

**REFUGE NAME:**

Clarks River National Wildlife Refuge, hereafter referred to as the Refuge, located in Marshall, Graves, and McCracken Counties in Kentucky.

**ESTABLISHING AND ACQUISITION AUTHORITY(IES):**

- (1) Migratory Bird Conservation Act {16 U.S.C. 715}
- (2) National Wildlife Refuge System Administration Act {16 U.S.C. 668(a)(2)}
- (3) Fish and Wildlife Act of 1956 {16 U.S.C. 742 (b)(1)}
- (4) Refuge Recreation Act {16 U.S.C. 460 K-1}

(5) Executive Order 9670

**REFUGE PURPOSE(S):**

(1) "...for use as a refuge and wildlife management area for migratory birds and other wildlife..."  
{Executive Order 9670, dated December 28, 1945}

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

(3) "...for the development, advancement, management, conservation, and protection of fish and wildlife resources..." {16 U.S.C. 742 (b)(1)}

(4) "...incidental fish and wildlife-oriented recreational development" {16 U.S.C. 460k-1; Refuge Recreation Act}

(5) "the protection of natural resources" {16 U.S.C. 460k-1; Refuge Recreation Act}

(6) "the conservation of endangered or threatened species..." {16 U.S.C. 460k-1; Refuge Recreation Act}

**OTHER APPLICABLE LAWS, REGULATIONS, AND POLICIES:**

Antiquities Act of 1906 (34 Stat. 225)

Migratory Bird Treaty Act of 1918 (15 U.S.C. 703-711; 40 Stat. 755)

Migratory Bird Conservation Act of 1929 (16 U.S.C. 715r; 45 Stat. 1222)

Migratory Bird Hunting Stamp Act of 1934 (16 U.S.C. 718-178h; 48 Stat. 451)

Criminal Code Provisions of 1940 (18 U.S.C. 41)

Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d; 54 Stat. 250)

Refuge Trespass Act of June 25, 1948 (18 U.S.C. 41; 62 Stat. 686)

Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j; 70 Stat. 1119)

Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4; 76 Stat. 653)

Wilderness Act (16 U.S.C. § 1131; 78 Stat. 890)

Refuge Revenue Sharing Act of 1935, as amended in 1978 (16 U.S.C. 715s; 92 Stat. 1319)

Land and Water Conservation Fund Act of 1965

Animal Welfare Act of 1966, Public Law 89-544. (7 U.S.C. 2131 et. seq.)

National Historic Preservation Act of 1966, as amended (16 U.S.C. 470, et seq.; 80 Stat. 915)

National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd, 668ee; 80 Stat. 927)

National Environmental Policy Act of 1969, NEPA (42 U.S.C. 4321, et seq; 83 Stat. 852)

Endangered Species Act of 1973 (16 U.S.C. 1531 et seq; 87 Stat. 884)

Refuge Revenue Sharing Act of 1935, as amended in 1978 (16 U.S.C. 715s; 92 Stat. 1319)

National Wildlife Refuge Regulations for the Most Recent Fiscal Year:

(Title 50 Code of Federal Regulations Subchapter C; 43 CFR 3103.3.3)

Title 50 Code of Federal Regulations, Parts 25-33

Emergency Wetlands Resources Act of 1986 (S.B. 740)

North American Wetlands Conservation Act of 1990

Food Security Act (Farm Bill) of 1990 as amended (HR 2100)

The Property Clause of the U.S. Constitution Article IV 3, Clause 2

The Commerce Clause of the U.S. Constitution Article 1, Section 8

The National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57, USC668dd)

Executive Order 12996, Management and General Public Use of the National Wildlife Refuge System.  
March 25, 1996

Executive Order 11644, Use of Off-Road Vehicles on Public Lands, as amended by E.O. 10989.

Archaeological Resources Protection Act of 1979

Native American Graves Protection and Repatriation Act of 1990

Consolidated Appropriations Act of 2004 - Section 145 of PL 108-199 is known as the Theodore Roosevelt National Wildlife Refuge Act

### **NATIONAL WILDLIFE REFUGE SYSTEM MISSION:**

The mission of the 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.

### **USES:**

The following uses were found to be appropriate and evaluated below to determine their compatibility with the mission of the Refuge System and the purposes of the Refuge:

Bicycle Use for Priority Public Uses  
Boating for Wildlife Dependent Activities  
Ceremonies (Special Use Permit only)  
Collecting Natural Resources (Special Use Permit only)  
Wildlife Habitat Enhancement and Improvement  
Commercial Photography (Special Use Permit only)  
Commercial Guided Wildlife Observation (Special Use Permit only)  
Cooperative Farming  
Dogwalking  
Field Trails (Special Use Permit only)  
Firewood Cutting (Special Use Permit only)  
Geocaching (Special Use Permit only)  
Horseback Riding  
Integrated Pest Management  
Non-licensed Off-road Vehicles (Special Use Permit only)  
Picnicking  
Recreational Fishing  
Recreational Hunting  
Release of Feral/Captive Wildlife (Special Use Permit only)  
Scientific Research (Special Use Permit only)  
Unmanned Aerial Systems/Drones (Special Use Permit only)  
Wildlife Observation, Environmental Education and Interpretation, and Wildlife Photography

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

The compatibility determination for Clarks River National Wildlife Refuge was made available for public review and comment for 30 days beginning February 15, 2017 and ending March 16, 2017. Announcements were made in the *Marshall County Daily*, *Paducah Sun*, *Lake News* and posted on the Refuge's website and facebook pages.

**NEPA Compliance for Refuge Use Description:** *Place an X in appropriate space.*

<input type="checkbox"/>	Categorical Exclusion without Environmental Action Statement
<input checked="" type="checkbox"/>	Categorical Exclusion and Environmental Action Statement
<input type="checkbox"/>	Environmental Assessment and Finding of No Significant Impact
<input type="checkbox"/>	Environmental Impact Statement and Record of Decision

These compatibility determinations can be categorically excluded from further NEPA analysis under 40 CFR §1508.4, 516 DM 8.5(A)(1), 516 DM 8.5(B)(7), 516 DM 8.5(B)(9), and 516 DM 8.5(C)(5). Further, these actions do not trigger an extraordinary circumstance as outlined under 43 CFR §46.215. These uses are consistent with the 2012 Comprehensive Conservation Plan and associated Environmental Assessment (USFWS 2012) and Finding of No Significant Impact (USFWS 2012) for Clarks River NWR. Environmental conditions have not changed substantially since that analysis. This compatibility determination updates and replaces previous compatibility determinations.

## **COMPATIBILITY DETERMINATIONS**

### **USE:**

Bicycle Use for Priority Public Uses

### **DESCRIPTION OF USE:**

#### **(a) *What is the use?***

Recreational bicycling as a mode of transportation facilitates travel and access for the priority public uses.

#### **(b) *Where would the use be conducted?***

Recreational biking would be permitted on paved or gravel roadways and the abandoned railroad tracks that are owned by Clarks River NWR.

#### **(c) *When would this use be conducted?***

Recreational biking would be permitted from sunrise to sunset, unless the use is to facilitate hunting then the use would be permitted from two hours prior to sunrise until two after sunset.

#### **(d) *How would this use be conducted?***

Access to the refuge is open every day; however certain portions of the refuge may be closed to access by the public for purposes of sanctuary to migratory birds or for management activities. In addition, entry on all or portions of individual areas may be temporarily suspended by posting upon occasions of unusual or critical conditions affecting land, water, vegetation, wildlife populations, or public safety.

#### **(e) *Why is this use being proposed?***

Bicycling as a lone activity is not identified as a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Bicycles are considered legal modes of transportation on local state and county roads. Like walking, bicycling can be used as transport to wildlife observation and photography areas. Bicycling has also been used by hunters and anglers to reach areas along roads closed to vehicle use.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

Groups greater than 10 individuals are required to obtain a special use permit, which requires administrative time to complete. However, a fee could be charged to off-set this cost.

**ANTICIPATED IMPACTS OF THE USE:**

Impacts associated with bicycling as a form of transport for hunters, anglers and wildlife observers are minimal on the refuge due to this use being limited to the paved or gravel roads and the abandoned railroad tracks that are owned by Clarks River NWR. Short-term and negligible disturbance to wildlife may occur due to visitor-wildlife encounters. In most cases, wildlife would be expected to become accustomed to the presence of visitors and their associated modes of transportation. Biking on any area other than paved or graveled roadways and the abandoned railroad tracks that are owned by Clarks River NWR would be prohibited.

In areas where the distance between trails, roads and wetlands is short, there may be some minor and short-term disturbances to shorebirds associated with bicycling. These areas may be seasonally closed to this use. No significant adverse impacts to non-target species are expected. Negative impacts between concurrent public use activities are not expected and no adverse socioeconomic impacts are anticipated. This use should not result in short or long-term impacts that adversely affect the purpose for this refuge or the mission of the National Wildlife Refuge System. It is intended that the primary positive impact will be a better appreciation of the role of the U.S. Fish & Wildlife Service in the conservation arena.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

We will allow bicycling only in designated areas specifically developed to prevent the erosion and degradation of wetlands or water quality and ensure public safety. Bicycles will not be allowed in areas or along trails if there are safety issues or wildlife disturbance issues. Bicycles are allowed for wildlife



dependent activities including but not limited to access related to hunting, fishing, and wildlife observation.

The use of bicycles to go cross country or off designated trails will be prohibited.

Bicycle riding as a general mode of transportation is allowed on paved or gravel roadways and the abandoned railroad tracks that are owned by Clarks River NWR. Organized rides and club rides involving more than 10 bicycles will be required to obtain a special use permit as these large groups may require greater management to prevent negative interactions with other public users and wildlife.

**JUSTIFICATION:**

Hunting, fishing wildlife observation and photography, and environmental education and interpretation are the six priority public uses of the Refuge System, and have been determined to be compatible activities on many refuges nationwide. The Refuge System Improvement Act of 1997 instructs refuge managers to seek ways to accommodate those six uses. Bicycling is allowed as a means to facilitate these priority public uses on Clarks River NWR. Bicycling activities will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established. Bicycling will not pose significant adverse effects on refuge resources; interfere with public use of the refuge; nor cause an undue administrative burden.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

**USE:**

Boating for Wildlife Dependent Activities

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Boating would be allowed as a means to facilitate refuge public use programs, namely the priority public use programs of hunting, fishing, wildlife observation and photography, and environmental education and interpretation. The use would be conducted consistent with refuge and Kentucky regulations, with some additional restrictions to protect fish, wildlife and habitat, and reduce potential conflicts among public uses.

**(b) *Where would the use be conducted?***

Boating would be permitted on all open bodies of water that are owned by Clarks River NWR, except for the Environmental Education and Recreation Area (EERA) fishing pond.

**(c) *When would this use be conducted?***

Boating would be allowed from sunrise to sunset, unless the use is to facilitate hunting then the use would be allowed from two hours prior to sunrise until two after sunset.

**(d) *How would this use be conducted?***

Access to the refuge is open every day; however certain portions of the refuge may be closed to access by the public for purposes of sanctuary to migratory birds or for management activities. In addition, entry on all or portions of individual areas may be temporarily suspended by posting upon occasions of unusual or critical conditions affecting land, water, vegetation, wildlife populations, or public safety.

**(e) *Why is this use being proposed?***

Boating as a lone activity is not identified as a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Boating can be used as transport to wildlife observation and photography areas. Boating has also been used by hunters and anglers to reach areas along roads closed to vehicle use.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

Groups greater than 10 individuals are required to obtain a special use permit, which requires administrative time to complete. However, a fee could be charged to off-set this cost.

**ANTICIPATED IMPACTS OF THE USE:**

Potential impacts of boating:

- Accidental introduction of invasive plants, pathogens, or exotic invertebrates, attached to boats.
- Disturbance of wildlife (particularly waterfowl, eagles, and wading birds): Popular public use boating seasons in Kentucky, coincide in part, with spring-early summer nesting and brood-rearing periods for many species of aquatic-dependent birds. Boaters may disturb nesting birds by approaching too closely to nests, causing nesting birds to flush. Flushing may expose eggs to predation or cooling, resulting in egg mortality.
- Negative impacts on water quality from motorboat and other pollutants, human waste, and litter: Extensive water quality testing on the refuge has not been carried out.
- Bank and trail erosion from human activity (boat landings, foot traffic), which may increase aquatic sediment loads of streams and rivers or alter riparian or lakeshore habitat or vegetation in ways harmful to fish or other wildlife.

**DETERMINATION (CHECK ONE BELOW):**

\_\_\_\_\_ Use is not compatible

  X   Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Use of boats is considered an acceptable for of transportation as part of hunting, fishing, wildlife observation and photography.

The refuge will close areas seasonally to all boating activities, if needed to prevent negative effects on wildlife such as in accordance with regulations regarding bald eagle nesting.

The refuge will increase public outreach and education to minimize conflicts among user groups, help control aquatic invasive plants and lead in the environment, reduce the introduction of nonnative fish species, and minimize the disturbance of wildlife and habitat.

A Federal Wildlife Officer will help to promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions.

Boating would be allowed as a means to facilitate refuge public use programs, namely the priority public use programs of hunting, fishing, wildlife observation and photography, and environmental education and interpretation. The use would be conducted consistent with refuge and Kentucky regulations, with some additional restrictions to protect fish, wildlife and habitat, and reduce potential conflicts among public uses.

The public must inspect all boats and boat trailers and clean them of aquatic invasive species before launching and leaving refuge sites. Cleaning of boats should take place on dry ground well away from the water and not on the Refuge. Exotic, nuisance plants or animals on boats, trailers, diving equipment, or in bait buckets can disrupt aquatic ecosystems and negatively affect native fish and plant species.

Regulatory signs along with educational materials would be made available in high use areas via the kiosks as well as on the refuge website and in brochures.

The use of boats is prohibited at the Environmental Education and Recreation Area (EERA) fishing pond.

#### **JUSTIFICATION:**

Hunting, fishing, wildlife observation and photography, and environmental education and interpretation are the six priority public uses of the Refuge System, and have been determined to be compatible activities on many refuges nationwide. The Refuge System Improvement Act of 1997 instructs refuge managers to seek ways to accommodate those six uses. Non-motorized boating is allowed as a means to facilitate these priority public uses on Clarks River NWR. Boating activities will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established. Motorized and non-motorized boating will not pose significant adverse effects on refuge resources; interfere with public use of the refuge; nor cause an undue administrative burden. In addition, this activity will fulfill one or more purposes of the refuge or Refuge System including hunting, fishing, wildlife observation and photography.

#### **MANDATORY 10-YEAR RE-EVALUATION DATE:**

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## **USE:**

Ceremonies in Public Use Areas: any organized event such as birthday parties, family reunions, weddings (Special Use Permit only)

## **DESCRIPTION OF USE:**

### ***(a) What is the use?***

Ceremonies would be any organized event such as birthday parties, family reunions, weddings. They would be allowed as a means to facilitate connection to natural resources and a sense of stewardship for the Refuge system.

### ***(b) Where would the use be conducted?***

To ensure this use does not have the potential to disturb wildlife, impact refuge management, or interfere with scheduled programs, special use permits must be obtained for this activity to occur on the Refuge. Ceremonies will only be permitted at public use "zones" of the Refuge (excluding office buildings) with developed facilities for public access, such as Refuge trails, overlooks, and boardwalks, and as long as the proposed use does not conflict with the public use of those areas or is in sensitive areas managed for trust species.

While small ceremonies such as birthday parties and wedding can have the potential to cause wildlife disturbance, most users request to host these events at the Refuge's Environmental Education and Recreation Area (EERA). This area is arranged for extensive public use with limited wildlife disturbance. The area is situated next to a subdivision and has miles of trails and a fishing pond for visitors. The Refuge routinely holds environmental education and interpretation events at the EERA hosting 100-150 children at each event. A section of this area is closed to the public from November 1 through March 31 to reduce disturbance to wildlife.

### ***(c) When would this use be conducted?***

Ceremonies would be permitted from sunrise until sunset in areas open to the public.

### ***(d) How would this use be conducted?***

Each request must be presented in writing with details of who, what, where, when, why, and how the ceremony will be conducted, and must comply with the stipulations listed below. Each request has different logistics, and therefore, would be evaluated individually for impacts on the Refuge mission. Ceremonies will only be permitted at public use "zones" of the Refuge (excluding office buildings) with developed facilities for public access, such as Refuge trails, overlooks, and boardwalks, and as long as the proposed use does not conflict with the public use of those areas or is in sensitive areas managed for trust species. No portion of the Refuge will be closed to accommodate such ceremonies and the Refuge Manager can deny or restrict any request to reduce the potential of wildlife disturbance or if the request conflicts with a scheduled Refuge environmental education event. In order to allow for continued public use of the EERA during ceremonies, ceremonies would be limited to 50 participants and restrictions for props and materials allowed would be detailed in the Special Use Permit.

**(e) *Why is this use being proposed?***

Ceremonies as a lone activity are not priority public uses of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

These uses may provide a connection to natural resources and a sense of stewardship for the Refuge system. Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. However, a fee could be charged to off-set this cost.

**ANTICIPATED IMPACTS OF THE USE:**

Potential impacts of ceremonies:

- Accidental introduction of invasive species.
- Disturbance of wildlife (particularly waterfowl, eagles, and wading birds) Trail erosion from human activity (foot traffic), which may increase aquatic sediment loads of streams and rivers or alter riparian or lakeshore habitat or vegetation in ways harmful to fish or other wildlife.

**DETERMINATION (CHECK ONE BELOW):**

\_\_\_\_\_ Use is not compatible

  X   Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Each request must be presented in writing with details of who, what, where, when, why, and how the ceremony will be conducted two weeks prior to ceremony. All public use stipulations listed in the brochure apply to the ceremony. Each request will then be evaluated for impacts to the Refuge.

Additional stipulations include:

- No portion of the Refuge will be closed to accommodate such ceremonies.
- Ceremonies are permitted at any public use "zone" of the Refuge (excluding office buildings) with developed facilities for public access, such as Refuge trails, overlooks, and boardwalks, as long as the proposed use does not conflict with the public use of those areas or is in sensitive areas managed for trust species.
- Ceremonies are limited to a maximum of 50 participants.
- No receptions are allowed following the ceremony.
- Props like music, archway, and aisle runners are allowed. Music will be limited to unplugged instruments of 5 or less pieces or hand-held players, but may be restricted depending on location and time of year to reduce wildlife disturbance. Only shade canopies 10 feet by 10 feet or smaller are allowed. Ceremonial props are allowed to be in place one hour before the ceremony and must be removed within one hour after the ceremony. Any additional ceremony props will have to be approved before the ceremony. All items must be removed within 1 hour of the ceremonies conclusion.
- Special accommodations and settings for people with special needs (elderly, physically disabled) may be granted. If needed, this should be described in a written request.
- Refuge staff does not provide any assistance in setting up or removal of props for ceremonies.
- The Refuge is open to the public and does have scheduled events, the ceremony may not cause disturbance to wildlife or other public uses. The public may not be excluded from a site due to a ceremony.
- The ceremony must be held within normal operating hours: sun rise to sunset
- No litter may be left on site including biodegradable materials (i.e. flowers). Balloons, silly string, birdseed and rice are not allowed.
- No fires or lit candles are allowed.
- A damage bond may be required at the discretion of the Refuge Manager, based on an analysis of the nature and scope of the event, and the associated level of risk for resource damage and anticipated cost of any restoration or repair of any damage. The permittee is responsible for site cleanup immediately following any ceremonial event. The Refuge Manager shall inspect the site prior to release of any bond.

As long as there is no significant negative impact to natural resource or visitor services, or violation of Refuge regulations, a Special Use Permit may be issued and the use allowed.

**JUSTIFICATION:**

This use is not a priority public: use of the National Wildlife Refuge system under the National



Wildlife Refuge system Administration Act of 1966 (16 U.S.C: 668dd-668c:.c), as amended by the National Wildlife Refuge System Improvement Act of 1997.

Allowing various ceremonies are not outlined in an approved plan; however in general, this one-time use does not conflict with the Refuge goal and objectives. Therefore, although this use typically is not undertaken to benefit Refuge natural and cultural resources, it obviously provides participants an appreciation, or at least exposure to outdoor environments, and may provide a stronger connection to the Refuge and the mission of the FWS. This activity will not materially interfere with or detract from the mission of the NWRS or purposes for which Clarks River NWR was established.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

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**USE:**

Collection of Natural Resources (Special Use Permit only)

**DESCRIPTION OF USE:**

***(a) What is the use?***

Collection of Natural Resources would be allowed as a means to facilitate environmental education and a sense of stewardship for the Refuge system.

***(b) Where would the use be conducted?***

This use could be conducted on any areas of the Clarks River NWR open to the public. The Refuge has approximately 9,500 acres of land owned by the Fish & Wildlife Service with the majority being open to public use.

***(c) When would this use be conducted?***

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

***(d) How would this use be conducted?***

Each request must be presented in writing with details of who, what, where, when, why, and how the collection of natural resources will be conducted, and must comply with the stipulations listed below. Each request has different logistics, and therefore, would be evaluated individually for impacts on the Refuge mission. Manager can deny or restrict any request to reduce the potential of wildlife disturbance or if the request conflicts with a scheduled Refuge environmental education event.

***(e) Why is this use being proposed?***

Collection of natural resources as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Collection of natural resources in this instance is interpreted as a “Special Use” for to purpose of environmental education and therefore this objective applies in this circumstance. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Consideration may be given to research and environmental education for the purposes of the broader enhancement, protection, use, preservation, or management of the native populations of fish, wildlife and plants, and their natural diversity. Research is conducted by Federal, State, and private entities, including the U.S. Geological Survey, State departments of natural resources, students and professors at State and private universities, and independent non-government researchers and contractors. This activity would allow permitted users to collect natural resources for both educational projects. The refuge issues special use permits for collection of natural resources for studies investigating biological, physical, or social issues and concerns to address refuge management information needs, and to enhance the understanding of trust resources. Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. However, a fee could be charged to off-set this cost.

#### **ANTICIPATED IMPACTS OF THE USE:**

Potential impacts of collecting natural resources:

- Accidental introduction of invasive plants, pathogens, or exotic invertebrates.
- Efforts to capture animals, such as for DNA sampling, can cause disturbance, injury, or death to groups of wildlife or to individuals. To wildlife, the energy cost of disturbance may be appreciable in terms of disruption of feeding, displacement from preferred habitat and the added energy expended to avoid disturbance.
- Disturbance of wildlife
- Negative impacts on water quality
- Trail erosion from human activity, which may increase aquatic sediment loads of streams and rivers or alter riparian or lakeshore habitat or vegetation in ways harmful to fish or other wildlife.

#### **DETERMINATION (CHECK ONE BELOW):**

☐ Use is not compatible

☒ Use is compatible, with the following stipulations

#### **STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

In accordance with 16 U.S.C. 668dd(d) and 50 C.F.R. Part 25, Subpart D, the refuge manager is responsible for reviewing applications for special use permits (SUPs) and determining whether to authorize a proposed use. Uses must be "appropriate," and if so, also found to be "compatible" with the refuge purposes, and those of the Refuge System, prior to be approved and undertaken. These decisions are based on the Service's best professional judgment, consistent with Service regulations and policy, including the Policy on Maintaining the Biological Integrity, Diversity, and Environmental Health of the National Wildlife Refuge System (66 Fed. Reg. 3810 (2001); 601 FW 3).

Each request must be presented in writing with details of who, what, where, when, why, and how the collections will be conducted, and must comply with the stipulations listed in the Special Use Permit. Each request has different logistics, and therefore, would be evaluated individually for impacts on the Refuge mission. Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit

**JUSTIFICATION:**

This use is not a priority public: use of the National Wildlife Refuge system under the National Wildlife Refuge system Administration Act of 1966 (16 U.S.C: 668dd-668c:.c), as amended by the National Wildlife Refuge System Improvement Act of 1997.

The Service encourages collection of some natural resources on national wildlife refuges to promote new information (research) which will improve the quality of refuge and other Service management decisions, to expand the body of scientific knowledge about fish and wildlife, their habitats, the use of these resources, appropriate resource management, and the environment in general, and to provide the opportunity for students and others to learn the principles of field research. This activity will not materially interfere with or detract from the mission of the NWRS or purposes for which Clarks River NWR was established.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

## **USE:**

Commercial Filming, Television, Motion Picture Production and Still Photography  
(Special Use Permit only)

## **DESCRIPTION OF USE:**

### **(a) *What is the use?***

Commercial filming involves an individual or company taking photographs, films, or videos for commercial gain. Photography classes, television and film documentary crews, and photographic production shoots are examples of commercial photography. This category applies to any photography, filming, or videography activity that results in images that are intended for sale or where the person is otherwise paid for the work by salary, contract, or other means. These activities are varied in their scopes and impacts, ranging from a single individual in a single vehicle to numerous people and associated support vehicles (e.g., trucks with aerials). The definition of commercial photography in Public Law 106-206 (16 U.S.C. 4601.6d) is as follows: "... commercial filming means the film, electronic, magnetic, and digital or other recording of a moving image by a person, business or other entity for a market audience with the intent of generating income. Examples include, but are not limited to feature film, video, television broadcast, documentary, or similar projects. Commercial filming may include the advertisement of a product or service and/or the use of actors, models, sets, or props.

### **(b) *Where would the use be conducted?***

This use could be conducted on any areas of the Clarks River NWR open to the public. The Refuge has approximately 9,500 acres of land owned by the Fish & Wildlife Service with the majority being open to public use.

### **(c) *When would this use be conducted?***

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

### **(d) *How would this use be conducted?***

Each request for this use will be considered, and if appropriate, will result in a special use permit being issued by the Refuge Manager. Each request must be presented in writing with details of who, what, where, when, why and how the commercial operation will be conducted. Each request will be evaluated on its own merit. The Refuge Manager will use professional judgment in ensuring that the request will have no considerable negative impacts; will not violate Refuge regulations; and that it will contribute to the achievement of the Refuge purpose or the Refuge System mission. Special needs will be considered on a case-by-case basis and are subject to the Refuge Manager's approval and may include a secondary component negotiated to ensure compatibility (if appropriate). Any approved special use permit will outline the framework in which the use can be conducted, and Refuge staff will ensure compliance with the permit.

For proposed commercial filming where the environmental educational/awareness values are not clear to the Refuge Manager, the use would be considered incompatible. For example, if filming could more appropriately be conducted on non-refuge lands, interference with priority public uses or other stipulations mentioned below cannot be accounted for properly and no educational/environmental component is offered as part of the request, the use would be considered not appropriate or compatible and the permit request will be denied.

Filming efforts may take one day to multiple days and may involve multiple periods throughout the year as stated in the special use stipulations that are approved for each request. Two types of commercial filming may occur including requests where a film crew accompanies Refuge staff or cooperators on projects or where a film crew has a specific project that has been reviewed as appropriate by Refuge staff and the filming will occur in open public use areas of the Refuge with limited supervision.

(e) *Why is this use being proposed?*

Commercial photography/filming as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Commercial photography in this instance is interpreted as a "Special Use" and therefore this objective applies in this circumstance. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Commercial photography/filming is a popular enterprise on the refuge due to the scenic natural habitats and abundant wildlife in the area. The Refuge staff anticipates that an increase in commercial photography and filming will occur in the area over the next few years as the Refuge gains visibility and areas of natural habitat in the surrounding areas decrease. If the number of requests expands dramatically, this use and its stipulations to ensure compatibility may need to be re-evaluated prior to the mandatory re-evaluation date.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities. Additional staff costs are incurred to review each request, analyze affected habitats and wildlife, coordinate with the outside entity, and process a permit if necessary. Compliance with the terms of the permit is within the regular duties of the Refuge's law enforcement officers.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of the public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. Additionally, costs may be assumed by the requestor as appropriate given the level of oversight needed. The Service requires the permittee to offset any cost incurred by the Refuge. This will be determined on a case-by-case basis. The offsetting cost should always be equal to the Refuge-incurred cost and would come to the Refuge in the form of fees paid by the commercial media permittee. These fees should at least equal our cost to administer the use, including any costs associated with facilities, equipment, supplies, and services.

#### **ANTICIPATED IMPACTS OF THE USE:**

Any public use activity has the potential for impacts: however, the focus is to minimize any potential impacts to within acceptable limits. Each request for a filming permit will be evaluated for impacts to wildlife, habitats and priority public uses. Stipulations will be added to the Special Use Permit to minimize the anticipated impacts.

Wildlife photography can negatively impact wildlife by altering wildlife behavior, reproduction, distribution, and habitat {Purdy et al 1987, Knight and Cole 1995}. Of the wildlife observation techniques, photographers tend to have the largest disturbance impacts (Klein 1993, Morton 1995, Dobb 1998). While wildlife observers frequently stop to view species, wildlife photographers are more likely to approach wildlife (Klein 1993). Even a slow approach by photographers tends to have behavioral consequences to wildlife species (Klein 1993). Other impacts include the potential for photographers to remain close to wildlife for extended periods of time, in an attempt to habituate the wildlife subject to their presence (Dobb 1998) and the tendency of casual photographers, with low power lenses, to get much closer to their subjects than other activities would require {Morton 1995}, including wandering off trails. This usually results in increased disturbance to wildlife and habitat, including trampling of plants. Klein (1993) recommended that refuges provide observation and photography blinds to reduce disturbance to wildlife when approached by visitors. Potential impacts from this use include purposeful or inadvertent disturbance to wildlife. Large commercial activities could also interfere with priority public uses.

Special use permit conditions and associated monitoring of permitted activities would be designed to minimize wildlife and habitat impacts of this use. Some requests may require further analysis of the impacts of the proposed activity which may also require additional compliance with the National Environmental Policy Act (NEPA) and consultation under any other relevant laws.

#### **DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

#### **STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Each request must comply with 43 CFR Part 5, Public Law 106-206 of May 2000, 8 RM 16 (Refuge Manual) and 50 CFR 27.71 a,b 1-4. To ensure compatibility with the Refuge System and refuge goals and objectives and to minimize or exclude adverse impacts as described above, additionally, the activity will be subject to the following stipulations:



1. Only commercial photography/filming that are in support of conservation, Refuge purposes, the Refuge System mission, or for educational and interpretation purposes will be permitted. Requests that do not directly support these will be considered on a case-by-case basis to see if a secondary component can be considered to ensure compatibility and appropriateness.
2. Any permittee or other non-Service unescorted personnel acting under a Special Use Permit accessing any area within the Clarks River NWR must notify the appropriate Refuge personnel and give at least a 72 hour advance notice prior to access for filming/photography. In most cases, the photographer's access is limited to the same areas in which the general public is allowed to go, but this will be evaluated on a case by case basis. Filming/photography activities approved in areas of the Refuge closed to the public will require Refuge staff to be present as an escort. The permittee acknowledges and agrees that this Special Use Permit does not give the permittee or its designees exclusive use or access to any site, facility, or wildlife.
3. Permittee will limit the crew size to the smallest number possible and necessary for filming.
4. Permittee shall provide a detailed description of filming/photography plans, including site specific location, support equipment, number of persons involved, client name, description of the project theme and key messages, and other details that would allow for evaluation of the project. The special use permit will detail who, what, where, when, why and how the commercial operation will be conducted.
5. Permittee will not clear, trim, cut, or disturb vegetation nor erect any facilities or structures, whether temporary or permanent, without written approval of the Refuge Manager.
6. All methodologies, e.g., aerial photography via drone or helicopter, must be requested and approved through the Special Use Permit process prior to filming.
7. Permittee is responsible for acquiring and/or renewing any necessary state and federal permits prior to beginning or continuing the project.
8. Firearms, weapons, alcohol, controlled substances or fires associated with filming/photography is prohibited.
9. Permittee will not capture or retain wildlife without specific written permission from the U.S. FWS as well as having all required permits.
10. Staging of equipment will not be allowed on the Refuge. The permittee agrees to remove all equipment and completely clear and clean each location of any materials brought to the site upon leaving a site each day.
11. Proper credit to the Refuge and the Service will be requested for all commercial filming, including commercial recording of images and sounds collected on the Refuge. Any footage used from Clarks River NWR must include a credit, acknowledgement, or caption acknowledging the U.S. Fish and Wildlife Service: "Filmed on location at Clarks River National Wildlife Refuge, Benton, Kentucky courtesy of the U.S. Fish and Wildlife Service".
12. Permittee will not capture or retain wildlife without specific written permission from the Service, as well as having all required permits.

13. Priority consideration is extended to producers of wildlife and natural resource related audio or visual materials. Producer's credentials will be verified by the appropriate Refuge personnel.
14. Production activities will be conducted so as to minimize impact or interference with Refuge visitors, wildlife or natural and/or cultural resources within the Refuge.
15. Disturbing, injuring, destroying or collecting or attempting to disturb, injure, destroy or collect any plant or animal is prohibited.
16. Permittee is required to adhere to all Refuge rules and regulations.
17. Failure to comply with any of the special conditions will result in revocation of the permit and the permit fee will not be refundable.
18. Permittee will provide the Refuge Manager with a copy of the final product of the commercial filming project within 180 days of completion of the project.
19. The U.S. Fish and Wildlife Service is not responsible for any mishaps or injuries that may occur during filming and associated activities. The permittee acknowledges and agrees to provide appropriate safety equipment and training to all people participating in the filming/photographic and associated activities with regard to hazards likely to be encountered on Clarks River NWR managed lands and waters.
20. Indemnification: The permittee shall save, hold harmless, defend and indemnify the United States of America, its agents, and employees for losses, damages, or judgments and expenses on account of fire or other peril, bodily injury, death, or property damage, or claims for bodily injury, death, or property damage of any nature whatsoever, and by whomsoever made, arising out of the activities of the permittee, its employees, subcontractors, or agents under this Special Use Permit.
21. (a) The permittee shall purchase at a minimum the types and amounts of insurance coverage as stated herein and agrees to comply with any revised insurance limits that the Refuge Manager may require during the term of this Special Use Permit.  
(b) Upon request of the Refuge Manager, the permittee shall provide a Statement of Insurance and Certificate of Insurance.  
(c) The U.S. Fish and Wildlife Service will not be responsible for any omissions or inadequacies of insurance coverages and amounts if such prove to be inadequate or otherwise insufficient for any reason whatsoever.

**Public Liability.** The permittee shall provide comprehensive general liability insurance against claims occasioned by actions or omissions of the permittee or its designees in carrying out the activities and operations authorized hereunder. Such insurance shall be in the amount commensurate with the degree of risk and the scope and size of such activities authorized herein, but in any event, the limits of liability shall not be less than (\$300,000) per occurrence covering both bodily injury and property damage. If claims reduce available insurance below the required per occurrence limits, the permittee shall obtain additional insurance to restore the required limits. An umbrella or excess liability policy, in addition to a comprehensive general liability policy, may be used to achieve the required limits.



(a) All liability policies shall specify that the insurance company shall have no right of subrogation against the United States of America or shall provide that the United States of America is named an additional insured.

(b) The permittee agrees that the U.S. Fish and Wildlife Service does not take any responsibility or liability for the security, loss, damage, or otherwise of any vehicle, machinery, equipment, or other goods or property owned by, or under the control of, the permittee.

The refuge shall also collect any costs incurred by the refuge as a result of photography activities, including but not limited to administrative, security and personnel costs in accordance with policy.

#### **JUSTIFICATION:**

Wildlife photography is a priority wildlife-dependent use for the Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). The Service's policy is to provide expanded opportunities for wildlife-dependent uses when compatible and consistent with sound fish and wildlife management, ensuring that they receive enhanced attention during planning and management.

Specific refuge regulations address equity and quality of opportunities for visitors and help safeguard refuge habitats. Impacts from this proposal, short-term and long-term, direct, indirect, and cumulative, are expected to be minor and are not expected to diminish the value of the refuge for its stated objectives. Stipulations above will ensure proper control of the use and provide management flexibility should detrimental impacts develop. Allowing this use also furthers the mission of the Refuge System by providing renewable resources for the benefit of the American public while conserving fish, wildlife, and plant resources on the refuge.

Commercial photography/filming, although not a priority public use, has been determined to be compatible provided the Permit Special Conditions are implemented because it may increase the public's understanding of America's wildlife, wildlife conservation, and the Service's role in managing and protecting natural resources. We do not expect this use to materially interfere with or detract from the mission of the National Wildlife Refuge System nor diminish the purposes for which the refuge was established. It will not pose significant adverse effects on Refuge resources, nor interfere with public use of the refuge, nor cause an undue administrative burden.

Commercial photography is considered an economic use of a national wildlife refuge and is guided by the following policies:

#### **16USC668dd, 50 CFR 27.71, Motion or Sound Pictures**

The taking or filming of any motion or sound pictures on a national wildlife refuge for subsequent commercial use is prohibited except as may be authorized under the provisions of 43 CFR part 5.

#### **16USC668dd, 50 CFR 27.97, Private Operations**

Soliciting business or conducting a commercial enterprise on any national wildlife refuge is prohibited except as may be authorized by special permit.

#### **16USC668dd, 50 CFR 27.86, Begging**

Begging on any national wildlife refuge is prohibited. Soliciting of funds for the support or assistance of any cause or organization is also prohibited unless properly authorized.

16USC668dd, 50 CFR, Subpart A, 29.1 Allowing Economic Uses on National Wildlife Refuges

We may only authorize public or private economic use of the natural resources of any national wildlife refuge, in accordance with 16 U.S.C. 715s, where we determine that the use contributes to the achievement of the national wildlife refuge purposes or the Refuge System mission.

8 RM 16, Audio Visual Productions

5 RM 17, Commercial and Economic Uses on National Wildlife Refuges

43 CFR Part 5, Making Pictures, Television Productions or Sound Tracks on Certain Areas Under the Jurisdiction of the Department of the Interior

Public Law 106-206, Commercial Filming

Under certain circumstances, commercial photography, filming, and videography can support priority public uses of the National Wildlife Refuge System such as environmental education, interpretation, and wildlife observation by increasing public awareness, understanding, and support of the U.S. Fish and Wildlife Service, the National Wildlife Refuge System, and conservation of natural resources, in general. Further, commercial photography, filming, and videography can promote ethical outdoor behavior, thereby helping to reduce and minimize adverse impacts to wildlife and habitats. Commercial photography and/or filming have the potential to inspire and educate the public about the National Wildlife Refuge System (Refuge System), natural habitats, and wildlife. These activities will not materially interfere with, or detract from, the mission of the Refuge System or purposes for which Clarks River National Wildlife National Wildlife Refuge was established. In addition, these activities will fulfill one or more purposes of the refuge or the Refuge System. Commercial photography and/or filming are an appropriate use of the Refuge with special conditions. A Special Use Permit will be issued for each commercial operation and special conditions will be determined on an individual bases. In addition, this activity will fulfill one or more purposes of the refuge or Refuge System.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

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## References:

Knight, R.L. and D.N. Cole. 1995. Wildlife response to recreationists. Pages 71-79 in R.L. Knight and K.J. Gutzwiller, eds., *Wildlife and Recreationists: Coexistence through Management and Research*. Island Press, Washington, D.C. 372 pp.

Klein, M.L. 1993. Waterbird behavior responses to human disturbances. *Wildlife Society Bulletin* 21: 31-39.

Morton J.M. 1995. Management of human disturbance and its effects on waterfowl. Pages F59-F86 in W. R. Whitman, T. Strange, L. Widjeskog, R. Whitemore, P. Kehoe and L. Roberts, eds., *Waterfowl Habitat Restoration, Enhancement and Management in the Atlantic Flyway*. Third Edition. Environmental Management Committee, Atlantic Flyway Council Technical Section, and Delaware Division of Fish and Wildlife. Dover, Delaware. 1114 pp.

Purdy, K.G., G.R. Goft, OJ. Decker, G.A. Pomerantz, and N.A. Connelly. 1987 . *A guide to managing human activity on National Wildlife Refuges*. Office of Information Transfer, U.S. Fish and Wildlife Service, Ft. Collins, CO. 57 pp.

**USE:**

Commercially Guided Wildlife and Nature Observation (Special Use Permit only)

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Commercial guided wildlife and nature observation involves an individual or company taking clients on tours of the Refuge to view wildlife and nature for commercial gain. Guiding also includes outfitting operations which may not provide an accompanying guide. These activities are varied in their scopes and impacts, ranging from a single individual in a single vehicle to numerous people and associated support vehicles. The refuge will authorize commercially guided wildlife observation within the refuge and will regulate such use through the implementation of a commercial wildlife guide management program, including issuance of Special Use Permits (SUPs) with conditions. Guiding does not include no-fee or not-for-profit guided tours conducted by non-profit groups, schools and colleges, or other agencies. This use also does not include tour bus or other road-based commercial tours which may stop at refuge administered overlooks or landings.

This activity provides recreational, and often educational, opportunities for the paying public who desire a successful, quality experience, but who may lack the necessary equipment, skills, or knowledge to observe wildlife or otherwise experience the refuge. Commercial guiding for wildlife or other observation is an existing activity on the refuge, but it has not been consistently administered. This use is not a priority public use but will contribute to priority public uses.

**(b) *Where would the use be conducted?***

Clarks River NWR has primarily forested habitat, being approximately 9,000 acres of forest on about 9,500 acres of land owned by the Fish & Wildlife Service. The use will be conducted within the refuge's boundary except for areas closed to the public. While the refuge will be open to these uses, the majority of the public use infrastructure is located near the Refuge Environmental Education and Recreation Area (EERA). Opportunities for commercially guided wildlife observation is available via existing trails, already maintained trail/road networks, and existing observation tower from sunrise to sunset.

**(c) *When would this use be conducted?***

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

**(d) *How would this use be conducted?***

Each request for this use will be considered, and if appropriate, will be issued a special use permit (SUP) by the refuge manager. Each request must be presented in writing with details of who, what, where, when, why, and how the commercial operation will be conducted. Each request will be evaluated on its own merit. The refuge manager will use professional judgment and ensure that the request will have no considerable negative impacts to natural, cultural, or visitor services, does not violate refuge regulations, and contributes to the achievement of the refuge purpose or the Refuge System mission. Special needs will be considered on a case-by-case basis and are subject to the refuge manager's approval. Any approved SUP will outline the framework in which the use can be conducted and refuge staff will ensure compliance with the permit.

Opportunities for commercially guided wildlife observation is available via existing trails, already maintained trail/road networks, and existing observation tower from one hour before sunrise to one hour after sunset. Using existing roads will minimize impacts to refuge resources. Moderate beneficial impacts are expected. Some conflict between refuge users is expected to result in short-term moderate adverse impacts, which will be managed through seasonal closures. These seasonal closures are in place to minimize wildlife disturbance.

Often guides and clients use the same site, route, or one of several locations selected by the guide. Some guided programs may walk to sites/routes from parking lots or roadsides. Guided wildlife viewing operations have typically used existing refuge or other public observation sites. In addition to the observation activities, guides and clients may use refuge facilities for breaks, lunch, or other activities during the outing, and in accordance with refuge regulations.

The total number of wildlife observation guides and clients on the refuge is not known. A first step in establishing a commercial guiding program on the refuge will be to identify existing guides and outfitting businesses through a review of public records and outreach through news releases and special meetings. Administration of commercially guided wildlife activities will be conducted in accordance with commercial guide use stipulations (attached) developed to ensure consistency throughout the refuge; provide a safe, quality experience; protect resources; and to ensure compliance with pertinent Refuge System regulations and policies.

**(e) *Why is this use being proposed?***

Commercially guided wildlife observation as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Wildlife observation is a compatible educational and recreational opportunities for visitors to enjoy the resource and to gain understanding and appreciation for fish and wildlife, wild lands ecology and the relationships of plant and animal populations within the ecosystem, and wildlife management. Based on apparent existing client demand, a significant number of the public are willing to pay for the additional expertise and local knowledge provided by commercial businesses and guides. The refuge provides excellent populations of watchable wildlife in a wild and scenic setting. It is expected that demand for guided wildlife observation will continue to increase, and with it, the number of interested commercial operators.

The guide use stipulations will address all aspects of the guided wildlife observation program including the number of permits to be issued, guide qualifications, permit cost, and selection methods. Commercial Guide Use Areas will be established based on factors such as habitat and wildlife sensitivity, other refuge resources and users, and other pertinent issues.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities. Additional staff costs are incurred to review each request, analyze affected habitats and wildlife, coordinate with the outside entity, and process a permit if necessary. Compliance with the terms of the permit is within the regular duties of the Refuge's law enforcement officers.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. Additionally, costs may be assumed by the requestor as appropriate given the level of oversight needed. The Service requires the permittee to offset any cost incurred by the Refuge. This will be determined on a case-by-case basis. The offsetting cost should always be equal to the Refuge-incurred cost and would come to the Refuge in the form of fees paid by the commercial media permittee. These fees should at least equal our cost to administer the use, including any costs associated with facilities, equipment, supplies, and services.

#### **ANTICIPATED IMPACTS OF THE USE:**

Commercially guided wildlife observation can result in positive or negative impacts to the wildlife resource. A positive effect of allowing visitor's access to the refuge will be the provision of additional wildlife-dependent recreational opportunities and a better appreciation and more complete understanding of the wildlife and habitats associated with the ecosystem. Each application will be evaluated on its own merit and stipulations will be adapted to individual requests to minimize impacts to vegetation and wildlife and ensure that the use is consistent with goals of the refuge and the Refuge System.

Visitors engaging in commercially guided activities are expected to use and stay on hiking and canoe trails or roads to access the interior of the refuge. Disturbance of refuge resources is the primary concern regarding commercially guided activities for wildlife observation. While field trip routes and observation sites are usually located in areas open to the public, disturbance caused by large groups could be more intense because the number of people, and desire to get close to wildlife, may be greater than what normally occurs during general public activities. This disturbance will displace individual animals to adjacent areas of the refuge. Commercially or recreationally, groups of 6 or more cyclists or groups of 15 or more pedestrian travelers will require an SUP.

Facilities most utilized by refuge visitors engaging in commercially guided wildlife observation are roads, parking lots, trails, and boat launching ramps. Maintenance or improvement of these facilities will cause negligible short term impacts to localized soils and waters and may cause some wildlife disturbances and damage to vegetation. Impacts from the construction of expanded facilities for visitor services programs that would accommodate commercially guided activities are expected to be negligible.



Commercially guided wildlife observation is expected to have negligible short-term, long-term, or cumulative impacts on the economy of the towns or county in which the refuge lies based on findings of economic activity. No adverse impacts are foreseen to be associated with changes in the community character or demographic composition.

This activity will result in several minor beneficial impacts on the social communities near the refuge and in the state and region as a whole. In the case of commercial guiding, additional economic benefit will be gained by any local businesses providing guided wildlife observation opportunities.

Commercially guided wildlife observation is expected to have negligible adverse short-term, long-term, or cumulative impacts on local or regional air and water quality. Localized increases in emissions from visitor's vehicles would be negligible. The use of boats by these visitors has the potential to affect water quality negatively by increasing erosion, or introducing pollutants into waterways. We do not expect emissions from vehicles to substantially affect the water quality of the region due to the low level of use authorized.

Commercially guided wildlife observation is expected to have negligible adverse short-term, long-term, or cumulative impacts on soils and vegetation.

Many of the impacts described for waterfowl, shorebirds, and secretive marsh and waterbirds are similar. Commercially guided wildlife observation is expected to have negligible adverse short-term, long-term, or cumulative impacts on waterfowl. To minimize waterfowl disturbance from this use, the refuge has designated approximately 140 acres as waterfowl sanctuaries that will be closed on a seasonal or annual basis. This use is expected to have negligible adverse short-term, long-term, or cumulative impacts on secretive marsh and waterbirds, shorebirds, and landbirds.

Impacts to fisheries from visitors engaged in commercially guided wildlife observation is expected to be temporary and minor. Use of boats and canoes will cause increased suspension of bottom sediments, which should not adversely affect biological oxygen demand for fisheries resources. Accidental introduction of invasive plants, pathogens, or exotic invertebrates attached to boats or canoes is a concern, but the expectation is that impacts will be negligible.

Commercially guided wildlife observation is expected to have negligible adverse short-term, long-term, or cumulative impacts on invertebrates and mammals. An increase in indirect impacts to mammals due to expansions such as new trails is also expected. The use was evaluated for its potential to benefit or adversely affect amphibians and reptiles or their habitats used for mating, reproduction, over-wintering, and foraging.

Guided tour activities may conflict with other refuge users, including commercial or non-commercial tours that will likely use the same areas as independent wildlife viewers, kayakers and canoeists, and hunters and anglers during open seasons. Unregulated or inadequately regulated commercial guiding operations may adversely affect the safety of other refuge users, the quality of their experience, and the equity of opportunity. The refuge's visitor use programs will be adjusted as needed to eliminate or minimize each conflict and provide quality wildlife dependent recreational opportunities.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

### **STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The following stipulations apply to the special use permits issued for commercial guided recreational tours. Law enforcement and administrative monitoring of permit holders will continue for compliance with the following conditions, which are incorporated into all permits to minimize impacts on refuge lands and resources:

1. Impacts of the commercial guiding for wildlife observation will continue to be assessed and adjustments made to the program to prevent conflicts to wildlife, habitats and other refuge users.
2. Qualified individuals must apply 12 months in advance to conduct guided tours. Qualified individuals are defined as:
  - a. Licensed as a commercial guide by the state in which they operate, as applicable and must also be certified by applicable associations such as the American Canoeing Association (<http://www.americancanoe.org/>) or similar certification if available.
  - b. When operating a boat, possess a current vessel operator license issued by the U.S. Coast Guard, as applicable. Minimum license shall be Operator Uninspected Passenger Vessel. The license shall be valid for the area of operations and type(s) of vessel operated. This license applies to guides transporting patrons by water.
  - c. Possess and provide proof of a current CPR and First Aid training certificate issued by a recognized national Organization.
  - d. Provide proof of insurance, including minimum coverage for general liability and comprehensive for all operations.
  - e. Certified as a "Certified Interpretive Guide" through the National Association for Interpretation (<http://www.interpnet.com>) and certified annually by the refuge manager through an orientation of current refuge news and information.
3. Administrative fee will be a minimum \$100 yearly. In addition to the administrative fee, the permit fee will be 5 percent of gross revenues or \$50, whichever is greater.
4. The permittee will not advertise on refuge property or distribute leaflets via the refuge visitor contact station, refuge headquarters, etc. They may distribute leaflets only during the approved programs covered by the permit and only to those participants registered for that program.
5. All special use permits will expire on September 30, regardless of the date of issue. The permittee is responsible for accurate record keeping and shall provide the refuge manager with the following information by October 10 of each year:
  - a. Fee schedule for the year (charge per patron)
  - b. Number of guided or outfitted trips performed on the refuge
  - c. Number of individuals guided or outfitted
  - d. Date of each trip
  - e. Location of each trip, or general area of activity
  - f. Individual names and description of duties for all additional staff who assist with a trip on the refuge.



6. A copy of a valid special use permit must be available for inspection on request by any law enforcement officer or refuge staff member, whenever an activity authorized by the permit is occurring. Storing permits in the glove box of a vehicle is acceptable; however, all guides must be knowledgeable about the permit and its conditions.
7. Violation of any special conditions of the permit or of any federal, state, local, or refuge regulations may result in a Notice of Violation being issued or the revocation or cancellation of the permit without written or verbal warning. In that case, the permit holder will receive immediate notification by phone with follow-up notification by mail. The permit holders are responsible for the actions of their employees, agents, others working under their special use permit, and their clients.
8. Regardless of the reason for the revocation or cancellation of a permit, no refund will be made to the permit holder.
9. The refuge will issue permits on a year-to-year basis, and will not reissue them automatically on consecutive years.
10. Permit holders will provide all participants with relevant refuge information, including the refuge's brochures. The refuge will supply information to the permit holder.
11. All boats must comply with U.S. Coast Guard, state and refuge requirements.
12. Tours must begin and end during daylight hours only.
13. Groups will police their routes for litter, vandalism, etc., and report any problems to the refuge office.
14. All vessels and vehicles used in guide operations shall be marked with a guide identifier.
15. The permittee and their clients shall save, hold harmless, defend and indemnify the United States of America, its agents, and employees for losses, damages, or judgments and expenses on account of fire or other peril, bodily injury, death, or property damage, or claims for bodily injury, death, or property damage of any nature whatsoever, and by whomsoever made, arising out of the activities of the permittee, its employees, subcontractors, or agents under this Special Use Permit.
16. (a) The permittee shall purchase at a minimum the types and amounts of insurance coverage as stated herein and agrees to comply with any revised insurance limits that the Refuge Manager may require during the term of this Special Use Permit.  
(b) Upon request of the Refuge Manager, the permittee shall provide a Statement of Insurance and Certificate of Insurance.  
(c) The U.S. Fish and Wildlife Service will not be responsible for any omissions or inadequacies of insurance coverages and amounts if such prove to be inadequate or otherwise insufficient for any reason whatsoever.

Public Liability. The permittee shall provide comprehensive general liability insurance against claims occasioned by actions or omissions of the permittee or its designees in carrying out the activities and operations authorized hereunder. Such insurance shall be in the amount commensurate with the degree of risk and the scope and size of such activities authorized herein,

but in any event, the limits of liability shall not be less than (\$300,000) per occurrence covering both bodily injury and property damage. If claims reduce available insurance below the required per occurrence limits, the permittee shall obtain additional insurance to restore the required limits. An umbrella or excess liability policy, in addition to a comprehensive general liability policy, may be used to achieve the required limits.

(a) All liability policies shall specify that the insurance company shall have no right of subrogation against the United States of America or shall provide that the United States of America is named an additional insured.

(b) The permittee agrees that the U.S. Fish and Wildlife Service does not take any responsibility or liability for the security, loss, damage, or otherwise of any vehicle, machinery, equipment, or other goods or property owned by, or under the control of, the permittee.

The refuge shall also collect any costs incurred by the refuge as a result of photography activities, including but not limited to administrative, security and personnel costs in accordance with policy.

#### **JUSTIFICATION:**

Allowing commercially guided wildlife observation on the refuge will not materially interfere with the purposes of the refuge or the mission of the Refuge System because:

- (1) Existing federal and state agency oversight and regulation of affected species and habitat is sufficient to ensure healthy populations. Disturbance to fish and wildlife will be local, short-term, and not adversely impact overall populations.
- (2) There are adequate state and federal enforcement officials to enforce state and federal regulations.
- (3) Qualifying standards for commercial operators will help ensure that the public is guided by competent individuals.
- (4) Restricting the number of guides and managing how guided activities are conducted will reduce adverse habitat effects, conflicts between competing guide services, and conflicts between guided operations and other refuge users.
- (5) Designated areas of operation (Guide Use Areas), operating requirements, and other regulation of guided activities will minimize conflicts with other refuge users.
- (6) Administrative (application) and SUP fees will help off-set costs to administer and provide oversight to this use.
- (7) Regulating and limiting the number of commercial operators as stated in the refuge commercial guide program stipulations will provide a safe, quality experience to individuals who want to enjoy the resources of the refuge. It will also increase opportunities for those who wish to observe wildlife and experience the scenic and wild nature of the refuge, but may lack the required equipment, knowledge, or expertise.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or purposes for which the refuge was established. In addition, this activity will fulfill one or more purposes of the refuge or Refuge System.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

**USE:**

Cooperative Farming

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Farming is used by the U.S. Fish and Wildlife Service on national wildlife refuges in the Southeast Region as a habitat management tool to provide high energy food sources for millions of wintering ducks, geese, and swans and other migratory bird species. Within the lower Mississippi Valley, these food resources are critical to each refuge's ability to successfully meet the goals and objectives set by the Lower Mississippi Valley Joint Venture (LMVJV 2016) as stepped down from the North American Waterfowl Management Plan (NAWMP 2012) and the respective Comprehensive Conservation Plans (CCPs) and Habitat Management Plans (HMPs) developed for each refuge in this landscape. Clarks River National Wildlife Refuge (NWR or Refuge) has a wintering waterfowl habitat objective to provide adequate flooded hardwoods, moist-soil, and agriculture habitats to meet the foraging needs of 10,000 ducks by 2020. (CCP Objective A-1, HMP Objectives 4.1.9) (USFWS 2012, USFWS 2013).

The Refuge uses a combination of farming, moist soil management, and managed forested wetlands to provide suitable wintering waterfowl habitat. Studies have documented that wintering waterfowl in the Mississippi Alluvial Valley (MAV) prefer regions composed of 50% cropland, 20% moist soil wetlands, 20% forested wetlands, and 10% open water habitats. (Strickland et. al 2009). Thousands of acres of naturally occurring moist soil and forested wetlands, as well as open water, are present on Clarks River NWR. These acres of natural food and open water, in conjunction with farming, will allow the Refuge to mimic the preferred composition of wintering waterfowl habitats found by Strickland et al. (2009).

Cooperative farming is an economic use whereby a farmer produces crops (primarily corn, rice, and millet) on a refuge and, in lieu of a rental payment, leaves an unharvested 25% share of the planted crop for wintering waterfowl and other wildlife species. The farmer is responsible for all equipment, fuel, seed, fertilizer, approved herbicides, and labor necessary to farm the Refuge. The Refuge is responsible for identifying the type and location of crops to be planted, providing the farmer with an approved list of herbicides for use, and identifying the Refuge's 25% crop share which will contribute to the waterfowl management goals and objectives.

There are three primary management options to meet step-down habitat objectives for wintering waterfowl on the Refuge: 1) moist soil management, 2) force account farming (i.e., Refuge staff farms the fields), and 3) cooperative farming (i.e., private farmer farms the fields and leaves 25% of crops unharvested).

Moist soil management is the manipulation of naturally occurring wetland plants to produce preferred waterfowl forage (Strader and Stinson 2005). Under moist soil management, staff uses a combination of 1) disking, mowing, and/or burning wetland plants to set back plant succession, 2) application of herbicides or mechanical disturbance to control undesirable plants, and 3) prescribed flooding of natural wetlands or wetland impoundments to make forage available to waterfowl. Several natural-occurring moist soil wetlands are already present on Clarks River NWR.

Force account farming is farming conducted by the Refuge staff which allows 100% of the crop to be retained for waterfowl use. Extensive staff time and farming equipment (e.g., farm tractors, seed drill(s), boom sprayers, and other farming implements) are used by the Service to force account farm. Knowledgeable staff are also needed to ensure desired crop productivity is obtained, which will meet habitat objectives and energetic requirements of wintering waterfowl.

Of the three management options available to meet wintering waterfowl objectives, force account farming and moist soil management require high initial investments by the Service for equipment and high annual expenses such as equipment repair and replacement, large requirements of staff time, seed, fertilizer, lime, diesel fuel, and herbicide costs. Refuge Managers also must decide if staff time dedicated to these management options can be conducted in a way that does not limit other management needs such as threatened and endangered species management, forest management, and management of priority public uses. Cooperative farming is therefore considered to be the most effective option for the Refuge to meet wintering waterfowl habitat objectives.

**(b) *Where would the use be conducted?***

Farming on the Refuge would occur on the 600 to 1,000 acres of agriculture fields. The Refuge Manager may decide to farm less than 600 acres in any given year due to weather conditions, economic considerations, or refuge management needs.

**(c) *When would this use be conducted?***

Cooperative farming activities (field-prep, planting, harvesting, etc.) generally occur between March 15 and November 15.

**(d) *How would this use be conducted?***

The cropping is done under the terms and conditions of a cooperative farming agreement or special use permit issued by the Project Leader. The terms of the permit insure that all current Service and Refuge guidelines and restrictions are followed. Permittee selection and associated determination of cost or shares will follow relevant Refuge Manual guidance (5 RM 17 and 6 RM 4) and Region 4 specific guidance for farming.

The cooperative farming program is a component of the refuge's annual habitat management program and activities conducted by the cooperator support the accomplishment of refuge habitat management objectives. We follow best management practices in the implementation of the cooperative farming program. Forested or grass buffers are established between all farm fields and any adjacent wetlands and streams. We prepare pesticide use proposals (7 RM 14) for application of all pesticides, and only those that are shown to not impact fish and wildlife resources are approved.

Annual cooperative farming agreements (agreement) are established with farmers prior to the planting season. An agreement outlines the crop(s), location, and amount of acreage to be planted during the coming year and is signed by the cooperative farmer (cooperator) and the Refuge Manager or designee. The cooperator is responsible for all equipment, fuel, seed, fertilizer, chemicals, and labor necessary to produce the crop. Shares are acreage-based with a 75% cooperator's share and 25% Refuge's share. Cooperative farmers are required to perform soil tests to determine nutrient needs (fertilizer and lime

applications) according to the local Agriculture Extension Service. Application of pesticides must follow the Refuges Integrated Pest Management plan and be approved through the U.S. Fish and Wildlife Service's Pesticide Use Proposal System (PUPS) process. Attached to the agreement will be a list of pesticides approved for use through the PUPS process. The cooperator assumes responsibility for all associated costs for the crops grown. Modifications to the original farming agreement may occur throughout the farming season, by writing addendums to the original agreement which have been agreed upon and signed by both the cooperator and Refuge Manager or designee. The Refuge Manager or designee will administer the cooperative farming program and be required to prepare farming contracts, meet with farmers, verify crop plantings, verify pest problems, and negotiate any needed addendums during the year.

**(e) *Why is this use being proposed?***

The Mississippi Alluvial Valley (MAV) is a continentally important region for migrating and wintering waterfowl in North America (Reinecke et al. 1989). The total wintering waterfowl population objective in the MAV is 4.2 million ducks and geese (Reinecke and Loesch 1996; Lower Mississippi Valley Joint Venture (LMVJV) 2016), which includes Mallard, Northern Pintail, American Black Duck, Gadwall, American Wigeon, Green-winged Teal, Northern Shoveler, Wood Duck, and geese. The initial population goals were adjusted for 15% winter mortality (Reinecke and Loesch 1996) and to account for early migrating ducks that winter in Mexico (LMVJV 2007). Waterfowl habitats are ranked with a value that describes the amount of energy they provide in food resources, known as "duck-energy-days" or DED's. DEDs are defined as the number of ducks that can be energetically sustained in one acre of foraging habitat for one day (LMVJV 2016). Waterfowl energy needs are modeled for an overwintering period of 110 days, representing early November to late February (Reinecke and Loesch 1996). Additionally, DED objectives were adjusted to account for goose competition (LMVJV 2016) and Wood Ducks were assumed to feed 75% in forested wetlands and 25% in moist-soil wetlands (LMVJV 2016).

As a result, across the 110-day period the overall NAWMP goal for the MAV is 469,336,891 DEDs. Kentucky is above its target objective for providing DEDs, whereas the MAV as a whole remains below objective, it is imperative that partners, at minimum, maintain current DED production (LMVJV 2016). Thus, the cooperative farming program adds essential capacity in the ability of National Wildlife Refuges to significantly contribute to NAWMP DED goals and objectives.

At the present time, the Refuge does not have staff or equipment necessary to manage and maintain the acreage needed to meet its waterfowl DED objectives without the assistance of the cooperative farming program. Refuge cooperative farming operations will continue under carefully regulated conditions.

The primary purpose for farming on national wildlife refuges is to ensure that waterfowl can meet their foraging needs which enhances their body condition and supports reproductive output. Female ducks that are in good physical condition when leaving the wintering grounds, nest earlier and have larger clutch sizes than those in poor condition (Ringelman 1990, Dzus and Clark 1998). Early nests and larger clutch sizes produce a greater number of fledgling ducks than late nests and smaller clutches (Krapu 1981, Heitmeyer 1988, Strickland et al. 2009). Thus, availability of high-quality foraging habitat on the wintering grounds, especially in disturbance-free areas (sanctuary), is positively related to the reproductive output of waterfowl during breeding season. Waterfowl habitat in the Southeastern United



States is of paramount importance since 50% of the continental waterfowl population winter in this region annually (unpubl. data, M. Koenff, USFWS).

TABLE 1. DUCK ENERGY DAY (DED) OBJECTIVES BASED ON ENERGY DEMAND OF STEPPED-DOWN NAWMP OBJECTIVES FOR THE MAV PORTION OF THE LMVJV (LMVJV 2016).

State	DED Objective1
Arkansas	219,427,337
Kentucky	4,708,843
Louisiana	120,913,290
Mississippi	72,637,077
Missouri	18,025,015
Tennessee	33,625,658
<b>MAV TOTAL</b>	<b>469,336,891</b>

The cooperative farming use on the Refuge was previously analyzed in the Environmental Assessment (USFWS 2012) for the Refuge's CCP; the Finding of No Significant Impact for the CCP's Environmental Assessment was signed in August 2012 (USFWS 2012). The cooperative farming use was found to be appropriate and compatible on Clarks River NWR. The cooperative farming use was also analyzed in the Refuge's HMP and associated Environmental Action Statement (USFWS 2013). Environmental conditions and farming operations have not changed substantially since those analyses. Compatibility policy (603 FW 2) requires that the Service reevaluate these types of uses at least every 10 years; the previous compatibility determination for cooperative farming had a Finding of No Significant Impact. This compatibility determination updates and replaces the previous compatibility determination for cooperative farming.

#### **AVAILABILITY OF RESOURCES:**

The need for staff time for the development and administration of cooperative farming program is already committed and available. Most of the needed work to prepare for this use would be done as part of routine habitat management duties. The decision to use a cooperative farmer would occur as part of strategies developed under habitat management planning and discussions (USFWS, 2013).

Refuge staff is responsible for drafting the Cooperative Farming Agreement and necessary Pesticide Use Proposals. Administration of the cooperative farming program consists of approximately 20 staff days or less than five percent of refuge staff time devoted to administering this activity.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

No offsetting revenues exist for this use.

### **ANTICIPATED IMPACTS OF THE USE:**

The 2012 Environmental Assessment for the CCP (USFWS 2012) analyzed the impacts of the Proposed Action, including cooperative farming; a summary of that analysis is included. The 2012 Finding of No Significant Impact for the CCP's Environmental Assessment found that no significant impacts were expected to result from implementation of the Proposed Action, which included cooperative farming activities. Further, the 2013 HMP and companion Environmental Action Statement, the Section 7 for the CCP, the Section 7 for the HMP, and the Section 7s for the annual Pesticide Use Proposals all support the CCP's Finding of No Significant Impact, including from cooperative farming activities.

In terms of the impacts related specifically to habitat objectives of the Refuge, we expect no impact to the diversity of fish, wildlife or plants occurring on the Refuge. The relatively small impact area (10% of the Refuge) suggests that no plant or species of fish and wildlife will be negatively impacted or extirpated from the refuge.

Short-term impacts – Soil disturbance is likely to occur when the areas are disked during the spring planting season, but these impacts can be lessened by the implementation of no-till and conservation tillage farming methods. It is Service policy that the long-term productivity of the soil will not be jeopardized to meet wildlife objectives (6 RM 4). Buffer strips adjacent to waterways and sensitive areas help trap sediments and hold agricultural run-off.

Pesticides will be used and approved through the PUPS process prior to application. The minimum effective volume will be applied and Best Management Practices will be followed.

Long-term impacts – Both current and proposed management recognize the benefits for providing supplemental forage for migratory waterfowl and waterbirds within the Mississippi Flyway. Refuge farming practices (both current and proposed) are designed for the predominate benefit of waterfowl (ducks and geese). However, many other species would benefit directly or indirectly from Refuge crops. Croplands on the Refuge provide an accessible, high-energy food source during the wintering period of migratory waterfowl. Most waterfowl are opportunistic feeders, and some species such as Canada geese, snow geese, mallard, northern pintails, and teal have learned to capitalize on the abundant foods produced by agriculture (Bellrose 1976). During the last century, migration routes and wintering areas have changed in response to availability of these foods (Fredrickson and Drobney 1979). Some species have developed such strong migratory traditions that many populations are now dependent on agricultural foods for their migration or winter survival (Ringelman 1990). However, during breeding and molting periods, waterfowl require a balanced diet with high protein content. Agricultural foods, most of which are neither nutritionally balanced nor high in protein, are seldom used during these periods. During fall, winter, and early spring, when vegetative foods make up a large part of their diet, agricultural foods are preferred forage except in arctic and subarctic environments (Sugden 1971).

Cooperative farmers are allowed to use Environmental Protection Agency (EPA) approved pesticides by way of a closely monitored Service-wide Pesticide Use Proposal System. These pesticides are reviewed and approved by the U.S. Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (7 USC §136) (FIFRA). EPA conducts risks assessments to ensure that approved pesticides will not generally cause unreasonable adverse effects on the environment. In addition to EPA's review of each pesticide, pesticides proposed for use on refuge lands go through an extensive Service review process in order to conduct a toxicity profile prior to their use. This review process provides the refuge with best management practices (BMP's) that assist the refuge with the use of each pesticide and reduces potential impacts to non-target pest species. As part of the PUPS process, Section 7 consultation is conducted, for each pesticide, which evaluates any possible impacts to threatened and/or endangered species that are near and/or adjacent to the spray area. The Service is



typically more restrictive than what is called for on the label particularly when it comes to buffers. Each chemical is carefully evaluated and ultimately approved by the Regional IPM Coordinator through the PUPS process.

**DETERMINATION (CHECK ONE BELOW):**

- \_\_\_\_\_ Use is not compatible
- X   Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The cooperative farming program is regulated through annual cooperative farming agreements that specify the fields, crops to be grown, acceptable farming practices, and approved pesticides and use procedures. Examples of special conditions contained in each cooperative farming agreement include:

- The program will adhere to general conditions for cooperative farming programs as listed in the Refuge Manual (6 RM 4 Exhibit 1).
- All operations on the refuge cropland are to be carried out in accordance with the best management practices (BMPs) and soil conservation practices
- Fifty foot (50') vegetative buffer strips are maintained around all fields and water bodies
- Cooperating farmers will be subject to Service policy and regulations regarding use of chemicals. Herbicide and pesticide use is restricted by type and to the minimum necessary amount applies.
- The use of genetically modified crops and neonicotinoid treated seeds are prohibited on Service lands.
- Special conditions of special use permits will address unique local conditions as applicable.

**JUSTIFICATION:**

Cooperative farming use was analyzed in the Environmental Assessment (USFWS 2012) for the Refuge's CCP; the Finding of No Significant Impact for the CCP's Environmental Assessment was signed at that time. Cooperative farming use was found to be appropriate and compatible on Clarks River NWR. Cooperative farming use was also analyzed in the Refuge's HMP and associated Environmental Action Statement (USFWS 2013). Environmental conditions and farming operations have not changed substantially since those analyses. Conditions/stipulations imposed in cooperative farming agreements ensure that farming activities minimize impacts to Refuge resources.

The Biological Integrity, Diversity, and Environmental Health Policy (601 FW 3) was approved in 2001 and updated in 2006 as one of the 14 directives contained within the NWRS Improvement Act of 1997. This policy provides Refuge Managers with an evaluation process to analyze refuge resources and recommend the best management practices in concert with the Refuge purpose(s) and the NWRS mission. This policy specifically addresses farming in 601 FW 3.15(B) and 601 FW 3.15(C).

“Our habitat management plans call for the appropriate management strategies that mimic historic conditions while still accomplishing refuge objectives... Farming, haying, logging, livestock grazing, and other extractive activities are permissible habitat management practices only when prescribed in plans to meet wildlife or habitat management objectives, and only when more natural methods, such as fire or grazing by native herbivores, cannot meet refuge goals and objectives.” [601 FW 3.15(B)]

“We do not allow refuge uses or management practices that result in the maintenance of non-native plant communities unless we determine there is no feasible alternative for accomplishing refuge purpose(s).” [601 FW 3.15(C)]

In addition this policy provides guidance on biological integrity, diversity, and environmental health in a landscape context (601 FW 3.7(C)).

“In pursuit of refuge purposes, individual refuges may at times compromise elements of biological integrity, diversity, and environmental health at the refuge scale in support of those components at larger landscape scales. When evaluating the appropriate management direction for refuges, refuge managers will consider their refuges’ contribution to biological integrity, diversity and environmental health at multiple scales.”

The Refuge acknowledges that the cooperative farming program may influence some aspects of biological integrity, diversity, and environmental health from the cooperating farmer’s share on the Refuge. We try to minimize these impacts using best management practices. However, cooperative farming through the refuge’s share on Clarks River NWR allows the Refuge to meet HMP (2013) and CCP (2012) objectives and contribute to, regional (LMVJV 2016), and national objectives (NAWMP, 2012) for providing vital wintering waterfowl habitat in the most productive and cost-effective manner.

In the case of Clarks River NWR, croplands constitute less than 10% of the Refuge acreage, but allow the Refuge to potentially provide foraging needs of 10,000 ducks by 2020. The use of cooperative farming is the only viable method available to meet the goal. Measures are taken to ensure that Integrated Pest Management and best management practices are followed by the cooperative farmers. Cooperative farming is the most cost effective method to produce the necessary foods to support wintering waterfowl and associated objectives.

The missions of the Refuge System provided in the Refuge Improvement Act of 1997 states that the “...mission of the National Wildlife Refuge System is to administer a national network of lands for the conservation, management and, where appropriate, restoration of fish, wildlife, and plant resources, and their habitats with the United States for the benefit of present and future generations of Americans (emphasis added).

Conservation and management means to sustain and, where appropriate, restore and enhance, healthy populations of fish, wildlife, and plants utilizing, in accordance with applicable Federal and States laws, methods and procedures associated with modern scientific resource programs. These definitions denote active management and is in keeping with the House report on the Act which states that the “Refuge System should stand as a monument to the science and practice of wildlife management.”

It thus follows, that if an economic use of a natural resource is shown to be conservation and management as defined in the Act, it does contribute to the mission by the very definition of terms used. If a use contributes to the mission, it thus meets the standard or threshold established in 50 CFR 29.1. In accordance with 50 CFR 29.1, cooperative farming, as described in this compatibility determination, significantly contributes to the mission, purposes, goals, and objectives of Clarks River NWR and Refuge System mission.

**MANDATORY 10-YEAR RE-EVALUATION DATE:** \_\_\_\_\_

## **References Cited:**

- Bellrose, F.C. 1976. Ducks, geese and swans of North America. Harrisburg, PA: Stackpole.
- Dzus, E.H. and R.G. Clark. 1998. Brood survival and recruitment of mallards in relation to wetland density and hatching date. *Auk* 115(2): 311-318.
- Fredrickson, L.H. and R.D. Drobney. 1979. Habitat utilization by post breeding waterfowl. Pages 119-131 in: T.A Bookhout, ed. Waterfowl and wetlands-an integrated review. La Crosse, WI: La Crosse Printing.
- Heitmeyer, M.E. 1988. Body composition of female mallards in winter in relation to annual cycle events. *Condor* 90:669-680.
- Krapu, G.L. 1981. The role of nutrient reserves in mallard reproduction. *Auk* 98(1): 29-38.
- Lower Mississippi Valley Joint Venture (LMVJV). 2007. MAV Waterfowl Stepdown State Summaries. LMVJV Waterfowl Working Group c/o Lower Mississippi Valley Joint Venture, Vicksburg, MS.
- NAWMP (North American Waterfowl Management Plan) Committee. 2012. North American Waterfowl Management Plan 2012: People Conserving Waterfowl and Wetlands. Available at <http://www.dgif.virginia.gov/wildlife/waterfowl/north-american-waterfowl-management-plan-2012.pdf>.
- Ringelman, J.K. 1990. Managing agricultural foods for waterfowl. Pp. 35-38 in Waterfowl Habitat Management Handbook for the Lower Mississippi River Valley. eds. Strickland, B.K and A. Tullos. 2009. Mississippi State University, Mississippi, 31 pp.
- Reinecke, K. J., and C. R. Loesch. 1996. Integrating Research and Management to Conserve Wildfowl (Anatidae) and Wetlands in the Mississippi Alluvial Valley, U.S.A. Pages 927-940 in M. Birkan, editor. Anatidae 2000: an international conference on the conservation, habitat management and wise use of ducks, geese and swans: Strasbourg, France, December 5-9, 1994. *Gibier Faune Sauvage, Game and Wildlife* 13(3).
- Reinecke, K.J., R.M. Kaminski, D.J. Moorhead, J.D. Hodges, and J.R. Nassar. 1989. Mississippi Alluvial Valley. Pp.203-247 in Habitat management for migrating and wintering waterfowl in North America, eds. L.M Smith, R.L. Pederson, and R.M. Kaminski. 1989. Texas Tech University Press. 560 pp.
- Strader, R.W., and P.H. Stinson. 2005. Moist Soil Guidelines for the U.S. Fish and Wildlife Service, Southeast Region. Division of Migratory Birds, U.S. Fish and Wildlife Service. Jackson, MS. 17 pp plus appendices.
- Strickland, B.K, R.M. Kaminski, and A. Tullos. 2009. Waterfowl Habitat Management Handbook for the Lower Mississippi River Valley. Mississippi State University, Mississippi, 31 pp.
- Sugden, L.G. 1971. Metabolizable energy of small grains for mallards. *Journal of Wildlife Management* 35:781-785.
- Tiner, R. W., Jr. 1984. Wetlands of the United States: current status and recent trends. United States Fish and Wildlife Service, National Wetland Inventory Washington, D.C.

U.S. Fish and Wildlife Service. (1981). Refuge manual. Washington, D.C.: Division of Refuge Management, U.S. Fish and Wildlife Service.

U.S. Fish and Wildlife Service. Updated 2006, 601.FW3, Biological integrity, Diversity and Environmental Health Policy. <https://www.fws.gov/policy/601fw3.html>

U.S. Fish and Wildlife Service. 2012. Comprehensive Conservation Plan and Environmental Assessment: Clarks River National Wildlife. July 2012. U.S. Fish and Wildlife Service, Southeast Region. Atlanta, GA.

U.S. Fish and Wildlife Service. 2013. Habitat Management Plan for Clarks River NWR. Benton, KY.

**USE:**

Recreational Dog Walking

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Like walking and hiking, recreational dog walking is another means to observe wildlife and take photographs.

**(b) *Where would the use be conducted?***

To ensure this use does not have the potential to disturb wildlife, impact refuge management, or interfere with scheduled programs, we propose to allow dog walking on refuge roads and trails on the Clarks River NWR, with stipulations to ensure public safety and compatibility of this use. Recreational dog walking will only be permitted at public use "zones" of the Refuge with developed facilities for public access, such as Refuge trails, overlooks, and boardwalks, and as long as the proposed use does not conflict with the public use of those areas or is in sensitive areas managed for trust species.

**(c) *When would this use be conducted?***

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

**(d) *How would this use be conducted?***

Dogs will be required to be on a leash at all times. Feces must be removed from roads and trails and disposed of properly. Restrictions on this activity will be clearly posted at refuge entrances, parking lots, and within the refuge brochure and website.

**(e) *Why is this use being proposed?***

This use should generally be found not appropriate since no Executive Order or Department and Service policy exists. The exception to this occurs when a refuge contains unique resources that otherwise are not available nearby (off the refuge) and allowing the use would not require significant refuge resources to administer the use.

This use is mainly centered around the Refuge's Environmental Education and Recreation Area which is next to a neighborhood and where significant public use already occurs. Although dogs can increase disturbance to wildlife, the refuge enforces a leash restriction to keep the dog localized and under the control of the pedestrian at all times to minimize both wildlife and public disturbance. Allowing recreational dog walking is not outlined in an approved plan; however Clarks River NWR 2012 CCP Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

In general, this use does not conflict with the Refuge goals and objectives. Therefore, although this is typically not undertaken to benefit Refuge natural and cultural resources, it obviously provides participants an appreciation, or at least exposure to outdoor environments, and may provide a stronger connection to the Refuge and the mission of the FWS. This activity will not materially interfere or detract from the mission of the NWRS or the purposes for which Clarks River NWR was established. Approving this use would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the Refuge, nor would this use materially interfere with or detract from the purposes of the Refuge, nor cause an undue administrative burden.

Dog walking will be monitored annually along with other uses of the refuge roads and trails to ensure compliance and compatibility with wildlife management and wildlife-dependent recreational activities. If monitoring indicates routine non-compliance or compatibility conflicts, the Service will evaluate the need for limiting or prohibiting dog walking. This CD will be revised in ten years or sooner to incorporate additional data and new information.

This is consistent with the town of Benton, KY regulations.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

No offsetting revenues exist for this use.

#### **ANTICIPATED IMPACTS OF THE USE:**

Both hikers and dog walkers can cause structural damage to plants and increase soil compaction. The degree of surface compaction is dependent on topography, soil structure, and soil moisture (Whittaker 1978). Impacts of trampling on vegetation and soils commonly noted on trails (Dale and Weaver 1974, Liddle 1975) are unlikely to occur on the well-defined, gravel surfaces of roads and trails. Although dog-walkers will be required to remain on the roads and trails, some users may leave the trail to provide drinking water for their dogs, or to observe and photograph wildlife. Plants may be trampled in the process and wildlife disturbed.

A human with a dog can elicit the greatest stress reaction in wildlife. In the case of birds, the presence of dogs may, reduce bird diversity and abundance in woodlands (Banks and Bryant 2007) and staging areas (Burger 1986, Lafferty 2001a,b), flush incubating birds from nests (Yalden and Yalden 1990), disrupt breeding displays (Baydack 1986), disrupt foraging activity in shorebirds (Hoopes 1993), and disturb roosting activity in ducks (Keller 1991). Many of these authors indicated that dogs with people, dogs on-leash, or loose dogs provoked the most pronounced disturbance reactions from their study animals. However, the greatest stress reaction results from unanticipated disturbance. Animals show greater flight response to humans moving unpredictably than to humans following a distinct path (Gabrielsen and Smith 1995).

The effects of human disturbance can be reduced by restricting human activity to an established trail, having disturbance free food areas for wildlife, and requiring dogs to be on a short leash under the control of the owner at all times. Sime (1999) concluded that maintaining control of pets while in wildlife habitats reduces the potential of disturbance, injury, or mortality to wildlife. In a study comparing wildlife responses to human and dog use on and off trails, Miller et al. (2001) recommended prohibiting dogs or restricting use to trails to minimize disturbance and that natural land managers can implement spatial and behavioral restrictions in visitor management to reduce disturbance by such activities on wildlife. Korschgen and Dahlgren (1992) and Fox and Madsen (1997) state the importance of disturbance-free food reserves and areas as a management alternative to minimize human disturbances. Dog walkers will be restricted to established, well-defined roads and paths that are sufficiently distant from wildlife habitat to prevent significant disturbance.

Despite thousands of years of domestication, dogs still maintain instincts to hunt and chase. Given the appropriate stimulus, those instincts can be triggered. Dogs that are unleashed or not under the control of their owners may disturb or potentially threaten the lives of some wildlife. In effect, off-leash dogs increase the radius of human recreational influence or disturbance beyond what it would be in the absence of a dog. Dog-walkers will be required to maintain physical control of their animal while on the refuge, thereby reducing the potential and severity of these impacts to wildlife. Special competition or dog training events will not be allowed since dogs function as an extension of their owner, and group size has been found to increase wildlife response to disturbance (Geist et al. 2005, Sime 1999, Yosef 2000). Restrictions on this activity will be clearly posted at refuge entrances, parking lots, and within the refuge brochure and website.

The role of dogs in wildlife diseases is poorly understood. However, dogs host endo- and ecto- parasites and can contract diseases from, or transmit diseases to, wild animals. In addition, dog waste is known to transmit diseases that may threaten the health of some wildlife and other domesticated animals. Domestic dogs can potentially introduce various diseases and transport parasites into wildlife habitats and to humans (Overgaauw 2009, Sime 1999). In order to minimize the risk of disease introduction, dog walkers will be required to pick up dog feces and dispose of them properly.

The studies cited above show that dog walking can and does disturb wildlife. Based on the circumstances described in the scientific literature, it is reasonable to assume similar effects could occur on Clarks River NWR in most areas where dog walking is allowed. However, we anticipate the impacts of dog walkers will be small, as a result of imposing a leash requirement, requiring removal of dog feces, and educating the public on the effects of recreation on wildlife and habitat.

**DETERMINATION (CHECK ONE BELOW):**

\_\_\_\_\_ Use is not compatible



X

Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

- Use is restricted to daylight hours only.
- Dogs must be kept leashed at all times.
- Dog droppings will be collected and disposed of properly off the Refuge by the responsible party. If domestic animal waste becomes a problem, dog-walking will be reevaluated.
- Regulations will be available to the public through a refuge brochure.
- Directional, informational and interpretive signs will be posted and maintained to help keep visitors on trails and help educate the public on minimizing wildlife and habitat disturbance.
- Use will be periodically evaluated for disturbance to wildlife, especially if use numbers increase.

**JUSTIFICATION:**

Although dog walking is not a wildlife-dependent public use of the refuge, as defined by statute (16 U.S.C. 668dd et seq.) this occasional use of the refuge roads and trails is expected to have negligible impacts to wildlife habitat when compared to the effects of other public uses (Klein 1993). Potential for wildlife and habitat disturbance is minimal given the indirect approach of this activity, the enforcement of the leash rule and removal of dog feces. Restricting the disturbance to established roads and trails with appropriate set-back distances (buffers) will increase the predictability of public use on the refuge, allowing wildlife to habituate to non-threatening activities. Impacts of dog walking will be monitored and if they, or other impacts, are discovered, this compatibility determination will be reevaluated. Direct costs to administer existing levels of dog walking on refuge roads and trails will be minor because costs will already be covered by the existing budget for maintaining wildlife-dependent public uses.

It is anticipated that wildlife populations will find sufficient food resources and resting places such that their abundance and use of the refuge will not be measurably lessened from allowing dog walking on the refuge. The relatively limited number of individuals expected to be dog walking will not cause wildlife populations to materially decline, the physiological condition and production of wildlife species will not be impaired, their behavior and normal activity patterns will not be altered dramatically, and their overall welfare will not be negatively impacted. Thus, allowing dog walking to occur with stipulations will not materially detract or interfere with the purposes for which the refuge was established or the Refuge System mission.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

## References:

- Banks, P.B. and J.V. Bryant. 2007. Four-legged friend or foe? Dog walking displaces native birds from natural areas. *Biology Letters* 3:611-613.
- Baydack, R.K. 1986. Sharp-tailed grouse response to lek disturbance in the Carberry Sand Hills of Manitoba. Ph.D. dissertation. Colorado State University, Fort Collins. 83 pp.
- Burger, J. 1986. The effect of human activity on shorebirds in two coastal bays in northeastern United States. *Environmental Conservation* 13:123-130.
- Dale, D. and T. Weaver. 1974. Trampling effects on vegetation of the trail corridors of north Rocky Mountain forests. *Journal of Applied Ecology* 11:767-772.
- Fox, A.D. and J. Madsen. 1997. Behavioral and distributional effects of hunting disturbance on waterbirds in Europe: Implications for refuge design. *Journal of Applied Ecology* 34(1):1-13.
- Gabrielson, G.W. and E.N. Smith. 1995. Physiological responses of wildlife to disturbance. Pages 95-107 in: R.L. Knight and K.J. Gutzwiller, eds. *Wildlife and recreationists; coexistence through management and research*. Washington, D.C.: Island Press.
- Geist, C., J. Liao, S. Libby, and D.T. Blumstein. 2005. Does intruder group size and orientation affect flight initiation distance in birds? *Animal Biodiversity and Conservation* 28.1:69-73.
- Hoopes, E.M. 1993. Relationships between human recreation and piping plover foraging ecology and chick survival. MS thesis. University of Massachusetts, Amherst. 106 pp.
- Keller, V.E. 1991. Effects of human disturbance on Eider ducklings *somateria mollissima* in estuarine habitat in Scotland. *Biological Conservation* 58 (2): 213-228.
- Klein, M.L. 1993. Waterbird behavioral responses to human disturbances. *Wildlife Society Bulletin* 21:31-39.
- Korschgen, C.E. and R.B. Dahlgren. 1992. Human disturbances of waterfowl: causes, effects, and management. 13.2.15. *Waterfowl Management Handbook*. Fish and Wildlife Leaflet 13. U.S. Fish and Wildlife Service.
- Lafferty, K.D. 2001a. Birds at a Southern California beach: seasonality, habitat use and disturbance by human activity. *Biodiversity and Conservation* 10: 1949-1962.
- Lafferty, K.D. 2001b. Disturbance to wintering western snowy plovers. *Biological Conservation* 101:315-325.
- Liddle, M.J. 1975. A selective review of the ecological effects of human trampling on natural ecosystems. *Biological Conservation* 7: 1 7-36.
- Miller, S.C., R.L. Knight, and C.K. Miller. 2001. Wildlife responses to pedestrians and dogs. *Wildlife Society* 29(1):124-132.

Overgaauw, P.A.M., L. van Zutphen, D. Hoek, F.O. Yaya, J. Roelfsema, E. Pinelli, F. van Knapen, and L.M. Kortbeek. 2009. Zoonotic parasites in fecal samples and fur from dogs and cats in the Netherlands. *Veterinary Parasitology*. Available at: doi: 10.1016/j.vetpar.2009.03.044.

Sime, C.A. 1999. Domestic dogs in wildlife habitats. Pages 8.1-8.17 in: G. Justin and H. Youmans, coordinators. *Effects of recreation on Rocky Mountain wildlife: a review for Montana*. Committee on Effects of Recreation on Wildlife, Montana Chapter of the Wildlife Society. 307 pp.

Whittaker, P .L. 1978. Comparison of surface impact by hiking and horseback riding in the Great Smoky Mountains National Park. Report 24. National Park Service, Southeast Region. Atlanta, GA. 32 pp.

Yalden, P.E. and D.W. Yalden. 1990. Recreational disturbances of breeding golden plovers *Pluvialis apricarius*. *Biological Conservation* 51 (4) :243-262.

Yosef, R. 2000. Individual distances among greater flamingos as indicators of tourism pressure. *Waterbirds* 23 (Special Publication 1):26-31.

**USE:**

Dog Field Trials (Special Use Permit only)

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Dog field trials are the use of dogs outside designated hunting seasons for competition events.

**(b) *Where would the use be conducted?***

This use is conducted on lands open to hunting.

**(c) *When would this use be conducted?***

This use could be conducted year-round in areas open to the general public. Currently, the only requests for field trials on Clarks River NWR are for raccoon field trials which are normally conducted during the mid- to late-summer months, typically two to three months prior to the raccoon season, and occur for two to three consecutive nights.

**(d) *How would this use be conducted?***

Dog field trials are limited to sanctioned events under organizations such as the Professional Kennel Club, United Kennel Club, World Hunt, the Breeders Showcase, or other professional organizations and by refuge special use permit only. Field trials dates are considered on a case-by-case basis. A special use permit (SUP) is issued annually, requiring compliance with the specific requirements outlined in Service Manual Chapter 631 FW 5, Field Trials. Because we require organizers of these events to obtain a SUP prior to holding the events, this use is also consistent with 50 CFR 27.91 which prohibits field trials for dogs on national wildlife refuge except where authorized by a SUP.

Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit.

**(e) *Why is this use being proposed?***

Dog field trials as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

The refuge allows the use of dogs during designated seasons only for hunting migratory birds (waterfowl retrieval), squirrel, raccoon, opossum, rabbit, quail and turkey (fall only). Other dogs must be confined or on a leash. Dog field trials are an historical, recreational use around Benton, Kentucky that occurred long before the refuge was created, and it has occurred on the refuge since its establishment. This use also offers an opportunity to participate in wildlife-dependent recreation. The objective of permitting these hunt tests and field trials on Service lands is to encourage practices and techniques that enhance the tradition and quality of the hunting experience and reduce the incidence of downed but unretrieved game. We also believe allowing this use would facilitate observation, and appreciation by participants and observers of the event, of the refuge's wildlife, habitats, and conservation programs. Use of dogs outside designated hunting seasons is limited to sanctioned events under organizations such as the Professional Kennel Club, United Kennel Club, World Hunt, the Breeders Showcase, or other professional organizations and by refuge special use permit only.

Based on observations made by refuge staff, and personal communication with hunters, raccoon hunting on the refuge is popular with a relatively small group of participants (less than 20 individuals). Overall hunting pressure throughout the raccoon season is considered light; however, the annual field dog trials increase disturbance of raccoons and other wildlife for brief periods (i.e. approximately one week) during each event.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. However, a fee could be charged to off-set this cost.

#### **ANTICIPATED IMPACTS OF THE USE:**

The incidental taking of other wildlife species, either illegally or unintentionally, may occur with any consumptive use program. At current and anticipated public use levels for this program, this incidental take would be minor and would not directly or cumulatively impact population levels on the refuge or in the surrounding area. Implementation of a highly effective law enforcement program and continued

development of special regulations for this use would eliminate most incidental take or other violations or safety problems.

Based on available information, it is anticipated that the current levels and expected future levels of hunting or other wildlife-dependent recreation activities would not directly, indirectly, or cumulatively impact any listed, proposed, or candidate species. Data gathered from future biological surveys regarding the importance or potential importance of the Refuge to threatened or endangered species or critical habitat (or proposed threatened, endangered, or critical habitat), could result in changes to public use activities over time; however, these changes would have no effect on listed species.

Impacts such as trampling small vertebrates, invertebrates, and vegetation as well as noise disturbance would be minimal. The activities of raccoon dog field trial participants traveling to and from the event and their subsequent activities would disturb some wildlife, but these disturbances are temporary, short-term, non-lethal, and not highly repetitive.

Raccoon dog field trials are not expected to result in indirect or cumulative negative impacts to refuge resources. As a consumptive use, raccoon dog field trials would have some minimal and short-term direct impacts on refuge resources.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Raccoon field dog trials are permitted in accordance with KDFWR regulations, licensing requirements, and the following refuge-specific regulations:

- Dog use is permitted for specific game species during designated seasons only.
- All other dogs must be on a leash.
- Dog use for raccoon and opossum hunting is limited to hours of darkness.
- Sanctioned raccoon dog field trials are by special use permit only.

**JUSTIFICATION:**

According to the National Wildlife Refuge System Improvement Act of 1997, hunting is a priority public use activity that should be encouraged and expanded where possible. It is through compatible wildlife-dependent public uses such as this that the public becomes aware of and provides support for national wildlife refuges. The raccoon dog field trials are used to train dogs for raccoon hunting.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

**USE:**

Firewood Cutting for Personal Use Only (Special Use Permit only)

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Firewood gathering is the cutting and removal of woody material for private use. Private individuals would be permitted to remove, for personal use only, fallen timber or marked standing timber as designated by the refuge manager.

**(b) *Where would the use be conducted?***

Clarks River NWR has primarily forested habitat, being approximately 9,000 acres of forest on about 9,500 acres of land owned by the Fish & Wildlife Service

**(c) *When would this use be conducted?***

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

**(d) *How would this use be conducted?***

Oversight and administration of public firewood gathering would be by the assistant refuge manager or by other staff experienced with the program. The scope of the use will be determined by the management objective for the area and by the quantity and quality of available wood. Harvest sites will vary in size from a portion of an acre up to several hundred acres depending on the site and management objectives. Wood removal activities may be authorized throughout the year when ground conditions allow access without damaging refuge roads and resources via a Special Use Permit.

Chainsaws and axes may be used to harvest firewood. Access may be by car and trailer or pickup truck. Differences in scope and necessary equipment will occur depending on the amount and type of wood available for removal. This activity will only occur where the Service has determined that a management need exists to remove wood.

**(e) *Why is this use being proposed?***

Firewood cutting for personal use as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

This use would assist in Refuge management in improving wildlife habitat, restoring rare habitats, and maintenance of roads, trails, and firebreaks as well as benefiting the public. Firewood gathering would be offered to the public following forest management for wildlife habitat improvements in small lots or areas, or at times when commercial operations are not feasible. In young tree plantations, firewood gathering could be offered in lieu of a commercial timber harvest operation. It may also be permitted when trees that have fallen across roads, trails, or firebreaks must be removed.

Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. However, a fee could be charged to off-set this cost.

#### **ANTICIPATED IMPACTS OF THE USE:**

The potential exists to directly impact wildlife by displacing animals from localized areas due to disturbance, noise, or removal of nesting areas. Due to the small scale of firewood gathering on the refuge, disturbance to wildlife would be negligible. Avoidance of nesting periods for migratory birds would reduce impacts on populations. Most impacts can easily be avoided by timing of season in accordance with site-specific characteristics.

Large, dead, and downed trees and standing snags are extremely important habitat components that should remain on the refuge unless they pose a danger to the public in concentrated use areas or to refuge operations. Unlikely incidents affecting hunters during general hunts would not be considered reason enough to remove snags. In some cases, the removal of trees along roads, trails, and dikes is necessary to reduce hazards to users caused by falling trees and limbs.

Impacts to refuge roads and trails due to soil compaction from vehicles, rutting, or root damage are possible but can be avoided by restricting use to dry ground conditions. Traffic on refuge roads will need to be carefully controlled (via special use permit) to avoid impacts such as rutting and potholes. Because few requests are received for this type of activity, halting the practice entirely should not create a problem

because local residents do not generally rely upon a supply of wood for home heating. Firewood cutting benefits the public and can be used as a management tool in forested habitats and as a maintenance tool on roads, trails, and grounds. The removal of dead trees reduces litter buildup and the potential for damaging wildfires. Direct impacts on wildlife can be avoided by timing the activity so that it is not coincide with the breeding/production season. Individuals gathering firewood would be required to comply with special use permit conditions and site-specific stipulations to ensure that resources are protected and management goals are achieved.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Firewood gathering would be regulated by Special Use Permit so that site-specific impacts can be reduced or eliminated and Service management goals are met. The permit would include stipulations that ensure the practice is allowed only when it benefits refuge operations or habitat conditions, areas and times of use are specified, ingress and egress points controlled, trees to be removed are marked by refuge staff, allowable equipment is identified, and other important conditions are specified.

The use would be restricted to periods of dry ground conditions to avoid rutting and soil compaction on refuge roads, to the extent practicable.

Firewood cutting would be limited to weekday only to allow for oversight by the refuge's assistant manager.

Firewood removed from refuge lands is for personal use only and may not be sold.

Chainsaws and axes may be used to harvest firewood.

Access with car and trailer or truck would only occur in areas already having developed access routes. No off-road vehicle use would be allowed under this program.

This activity will only occur where the Service has determined that a management need exists to remove wood.

The permittee shall save, hold harmless, defend and indemnify the United States of America, its agents, and employees for losses, damages, or judgments and expenses on account of fire or other peril, bodily injury, death, or property damage, or claims for bodily injury, death, or property damage of any nature whatsoever, and by whomsoever made, arising out of the activities of the permittee, its employees, subcontractors, or agents under this Special Use Permit.

**JUSTIFICATION:**

Firewood cutting and gathering allows the refuge the option to maintain and enhance necessary habitat for trust species by promoting plant communities beneficial to these species, manage forest stands by

manipulating stand composition in order to produce high-quality habitats for trust resources, and manipulate forest stands to provide diverse plant successional stages ranging from regeneration to mature timber, which will support a variety of wildlife species. Additionally, forest health can be protected by emergency forest actions to prevent unwanted spread of insect or disease outbreaks. Silvicultural decisions will be based upon the resources of concern and their habitat requirements as it relates to forest composition and structure.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or purposes for which the refuge was established. In addition, this activity will fulfill one or more purposes of the refuge or Refuge System.

#### **MANDATORY 10-YEAR RE-EVALUATION DATE:**

**USE:**

Geocaching for Environmental Education (Special Use Permit only)

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Geocaching for environmental education is an outdoor recreational activity in which participants use navigational techniques to hide and seek containers called "geocaches".

**(b) *Where would the use be conducted?***

The use will be conducted within the Refuge's boundary. While the entire Refuge will be open to this use, the majority of the public use infrastructure is located near the Refuge Environmental Education and Recreation Area (EERA).

**(c) *When would this use be conducted?***

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

**(d) *How would this use be conducted?***

Refuge could create geocache sites for the general public, as well as for organized groups, including schools and scout groups at various areas throughout the Refuge with environmental educational messages associated with each cache. Brochures and maps depicting the roads and trails open for public use are available at the Visitor Contact Station, kiosks, and on the refuge's Web site.

**(e) *Why is this use being proposed?***

Geocaching as a lone activity is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Environmental education is a priority public use as defined by the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and if compatible, is to receive enhanced consideration over other general

public uses. Geocaching at refuge established sites can be an important tool in connecting people with nature while educating them about nature, the mission of the Service and the purposes for which the refuge was created.

Geocaching opportunities are conducted to provide compatible educational opportunities with a recreational flare for visitors to enjoy the resource and to gain understanding and appreciation for fish and wildlife, wild lands ecology and the relationships of plant and animal populations within the ecosystem, and wildlife management. This use will provide opportunities for visitors to observe and learn about wildlife and wild lands at their own pace in an unstructured environment and to observe wildlife habitats firsthand. These uses will enhance the public's understanding of natural resource management programs and ecological concepts to enable the public to better understand the problems facing our wildlife/wild lands resources, to realize what effect the public has on wildlife resources, to learn about the Service's role in conservation, to better understand the biological facts upon which Service management programs are based, and to foster an appreciation for the importance of wildlife and wild lands. It is anticipated that participation in these uses will result in a more informed public, with an enhanced stewardship ethic and enhanced support and advocacy for Service programs.

These uses will also provide wholesome, safe, outdoor recreation in a scenic setting, with the realization that those who come strictly for recreational enjoyment will be enticed to participate in the more educational facets of the public use program, and can then become informed advocates for the refuge and the Service. Geocache stations will provide visitors with unique opportunities for education and interpretation throughout the refuge.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

No off-setting costs exist for this use.

#### **ANTICIPATED IMPACTS OF THE USE:**

The refuge expects that refuge established geocache locations as part of environmental education and environmental interpretation will have negligible short-term, long-term, or cumulative impacts on the economy of the towns or county in which the refuge lies. We do not expect these activities to considerably alter the demographic of economic characteristics of the local community. No adverse impacts are foreseen to be associated with changes in the community character or demographic composition. In addition, impacts are expected to be negligible based on our observations of past visitor impacts from these uses.

The beneficial impacts of providing the existing level of wildlife-dependent activities, with some modest increases, include helping meet existing and future demands for outdoor recreation and education. Visitor use is increasing over time as local residents and visitors become increasingly aware of refuge

opportunities, and as we progress in creating new facilities and programs. The economic benefits of increased tourism likely would also benefit local communities.

Expanded facilities for environmental education and new or expanded visitor services programs are expected to increase public awareness of, and visitation to, the refuge, and enable staff to provide better customer service. We expect a certain level of inconvenience during the construction of refuge facilities. The adverse effects generally are short-term, and more than offset by the long-term gains in public education and appreciation. Impacts to refuge resources are expected to be negligible.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The refuge will manage this activity within the existing priority public uses (environmental education and interpretation) in accordance with Federal and State regulations and review it annually so that these programs are providing safe, high-quality experiences for participants. To ensure compatibility with refuge purposes and the mission of the Refuge System, wildlife observation, photography, environmental education, and interpretation can occur on the refuge if the refuge-specific regulations are followed and following stipulations are met:

- (1) This use must be conducted in accordance with State and Federal regulations (50CFR), and special refuge specific regulations published in the Public Use Regulations brochure.
- (2) The public use program will be reviewed annually to ensure that it contributes to refuge objectives in managing quality recreational opportunities and protecting habitats, and is subject to modification if on-site monitoring by refuge personnel or other authorized personnel results in unanticipated negative impacts to natural communities, wildlife species, or their habitats. Refuge law enforcement officer(s) will promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions. Refuge law enforcement personnel will monitor all areas and enforce all applicable State and Federal regulations.
- (3) Areas may be closed on the refuge to protect resources or prevent unwanted disturbance.
- (4) Pets allowed on a leash.
- (5) The Visitor Contact Station is open weekdays from 7:00 a.m. to 3:30 p.m..
- (6) The public will not be allowed to establish their own geocache locations; only refuge established geocache sites are authorized for use as part of the environmental education and interpretation programs.

**JUSTIFICATION:**

Environmental education and interpretation are priority wildlife-dependent uses for the Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). The Service's 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.

Specific refuge regulations address equity and quality of opportunities for visitors and help safeguard refuge habitats. Impacts from this proposal, short-term and long-term, direct, indirect, and cumulative, are expected to be minor and are not expected to diminish the value of the refuge for its stated objectives. Available parking and size of the facilities will typically limit use at any given time, except during special events.

Conflicts between visitors are localized and are addressed through law enforcement, public education, and continuous review and updating to public use regulations. Conflicts are further reduced by the establishment of seasonal area closures.

Stipulations above will ensure proper control of the means of use and provide management flexibility should detrimental impacts develop. Allowing this use also furthers the mission of the Refuge System by providing renewable resources for the benefit of the American public while conserving fish, wildlife, and plant resources on the refuge.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or the purpose for which the refuge was established.

#### **MANDATORY 10-YEAR RE-EVALUATION DATE:**



**USE:**

Horseback Riding

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Horseback riding is an outdoor recreational activity in which participants ride horses to access the Refuge for wildlife viewing opportunities.

**(b) *Where would the use be conducted?***

Horseback riding would be allowed on paved or gravel roads and the abandoned railroad tracks that are owned by Clarks River NWR.

**(c) *When would this use be conducted?***

Horseback riding would be allowed year round during daylight hours only (except for raccoon and opossum hunting), except during the refuge's muzzleloader and modern gun deer hunts. Some areas/trails are only open seasonally. Individuals need to consult the public use regulations brochure to determine which trails are open.

**(d) *How would this use be conducted?***

Horseback riders are prohibited from leaving the roadways and trails open to this use and from entering areas closed to vehicular traffic.

**(e) *Why is this use being proposed?***

Horseback riding as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Horseback riding is not one of the six priority wildlife dependent uses of the National Wildlife Refuge System. Horseback riding is a historical recreational activity on the refuge. Horseback riding is a popular enterprise on the refuge due to the scenic natural habitats and abundant wildlife in the area.

It is expected or anticipated that wildlife observation would be part of the horseback riding experience on the refuge.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

No off-setting costs exist for this use.

**ANTICIPATED IMPACTS OF THE USE:**

The impact of horses on trails has been well documented. Some impacts include erosion, informal trail development, and invasive species introduction. Hammitt and Cole (1987) stated erosion is considered to be the most severe form of impact because its effects are long-lasting. Erosion can cause siltation which can impact nearby streams and rivers. Soil erosion resulting from horse use is a product of trampling and eventual loss of vegetative cover, soil compaction leading to lowered water infiltration rates, and the churning and lifting of surface soil particles (Widner and Marion, 1993). Wells and Lauenroth (2007) found horses used on recreational trails represent a potentially important dispersal vector for alien plants.

Short-term impacts associated with this use involve littering, minor vegetation disturbance on roadsides, and wildlife disturbance caused by the passage of horse and rider. On rare occasions, riders may illegally leave roadways and cause short-term habitat degradation, as a result of trampling of vegetation or soil compaction. Since riding is confined to paved or gravel roads and the abandoned railroad tracks that are owned by Clarks River NWR it is not anticipated that this use would impact refuge resources any more than vehicle traffic. At current use levels no long-term or cumulative impacts are anticipated. However, if monitoring detects resource damage and/or invasive species invasions on trails open to horseback riding, these trails may be closed immediately to mitigate resource damage.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

- Horses are allowed on paved or gravel roads and the abandoned railroad tracks that are owned by Clarks River NWR. Horses and mules are not permitted off these secondary access routes for any purpose.
- The refuge is open to horseback riding from sunrise to sunset year round in areas open to the public except during refuge muzzleloader and modern gun deer hunts, except for raccoon and opossum hunting.
- Trails can be closed without notice for resource damage, flooding, invasive species detections.
- No organized trail rides by local clubs or organizations will be permitted.
- Trucks and trailers are not to block roads or gates.

#### **JUSTIFICATION:**

Horseback riding is a historic use on Clarks River NWR and supports wildlife observation. Horseback riding on paved or gravel roads and the abandoned railroad tracks that are owned by Clarks River NWR is a low impact activity that can be managed with existing refuge resources.

Specific refuge regulations address equity and quality of opportunities for visitors and help safeguard refuge habitats. Impacts from this proposal, short-term and long-term, direct, indirect, and cumulative, are expected to be negligible and are not expected to diminish the value of the refuge for its stated objectives. Stipulations above will ensure proper control of the means of use and provide management flexibility should detrimental impacts develop. Allowing this use also furthers the mission of the National Wildlife Refuge System by providing activities and information for the benefit of the American public while conserving fish, wildlife, and plant resources on the refuge.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or the purpose for which the refuge was established.

#### **MANDATORY 10-YEAR RE-EVALUATION DATE:**

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## References:

- Hammitt, W. E. and D. N. Cole. 1987. *Wildland Recreation: Ecology and Management*. John Wiley & Sons, New York. 341 pp.
- Wells, FH and Lauenroth, WK. 2007. The Potential For Horses to Disperse Alien Plants Along Recreational Trails. *Rangeland Ecology & Management* 60:574-577.
- Widner, Carolyn and Jeffery L. Marion. 1993. *Horse Impacts: Research Findings and Their Implications*. Master Network, A publication of the National Outdoor Leadership School, part 1-1993: No. 5(pp.5,14); part 2-1994: No. 6(pp.5-6).

**USE:**

Recreational Use of Off-road Vehicles (Special Use Permit only)

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Recreational use of off-road vehicles is the use of non-licensed off-road vehicles to facilitate wildlife-dependent activities for mobility impaired visitors and for refuge management actions conducted by non-refuge employees.

**(b) *Where would the use be conducted?***

The use would be conducted on Clarks River NWR which has approximately 9,500 acres of land owned by the Fish & Wildlife Service

**(c) *When would this use be conducted?***

This use could be conducted year-round in areas open to the general public from sunrise to sunset.

**(d) *How would this use be conducted?***

A Special Use Permit request would be necessary in order for the Refuge to determine the positive or negative impact of non-licensed off-road vehicles, if the request met Refuge goals and objectives, and the appropriateness of the request. Each request must be presented in writing with details of who, what, where, when, why, and how the use will be conducted, and must comply with the stipulations listed in the hunting brochure and the mobility-impaired access application. Each request has different logistics, and therefore, would be evaluated individually for impacts on the Refuge mission. Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued on a case-by-case basis outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit.

**(e) *Why is this use being proposed?***

Recreational use of off-road vehicles as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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." Non-licensed Off-road Vehicles (ATVs/UTVs) use is not a priority public use. All-terrain vehicle use is prohibited at Clarks River National Wildlife Refuge with the following exceptions, mobility-impaired individuals, contractors, scientific research, and search/rescue and/or law enforcement operations. Mobility-impaired individuals are allowed to use a personal ATV for access to designated areas of the refuge if a reasonable accommodation is required to participate in refuge programs. A formal request must be filed with the refuge with a verified physician's statement attesting to the nature of the disability. If approved, the individual is issued a special use permit (SUP) permitting ATV use for access purposes only in designated areas. Mobility-impaired ATV access on the refuge is minimal, generally no more than five individuals per year are approved for the permit. Additionally, contractors can need to use non-licensed off-road vehicles to access rights-of-ways, conduct treatments of invasive species or other activities. Researchers may also need to access their sites via ATVs/UTVs on occasion. Search and rescue operations may also require the use of ATVs/UTVs. In each case, except for instances where a life was at stake, the refuge will authorize the use within the refuge on a case by case basis, and will regulate such use through the issuance of Special Use Permits (SUPs) with conditions.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

No off-setting costs exist for this use.

#### **ANTICIPATED IMPACTS OF THE USE:**

According to the 2017 article in the Journal of Fish and Wildlife Management "An Evaluation of U.S. National Wildlife Refuge Planning for Off-Road Vehicle Use" by Fischman et al.:

"Recreational ATVs/UTVs activity can kill wildlife directly through collision but may also disturb animals by increasing stress and decreasing reproduction (Havlick 2002). In addition, ATVs/UTVs increase access for illegal hunting (Switalski and Jones 2012). But habitat modification poses a more common threat to wildlife. Soils are vulnerable to compaction and erosion from ATVs/UTVs use. Erosion in the form of mud holes and gullies causes sediment to be discharged to streams, decreasing water quality, destroying in-stream habitat, and harming aquatic organisms (Switalski and Jones 2012; Marion et al. 2014). In addition, oil and gasoline from ATVs/UTVs can enter soil and waters on public lands (Havlick 2002). Off trail ATVs/UTVs use may destroy vegetation and impair wildlife habitats. Surviving plants are often weakened and become more susceptible to diseases and insects. Diversity of vegetation often decreases and sensitive species die out, allowing invasive species to take over. Recreational use of ATVs/UTVs also contributes to the spread of invasive species by transporting seeds and plant



materials (Switalski and Jones 2012; Banha et al. 2014). Some ATVs/UTVs trails act as barriers to animal movement and create fragmentation effects (Trombulak and Frissell 2000). On the other hand, ATVs/UTVs recreation also generates benefits—both to ATVs/UTVs users and to Refuges (Deisenroth et al. 2009; Jakus et al. 2010). It can facilitate the wildlife-dependent activities that Congress instructed Refuges to promote. The use of ATVs/UTVs may better distribute hunters, increasing safety and the quality of the hunting experience. In the case of people with disabilities, ATVs/UTVs use may be necessary for promoting wildlife-dependent recreation and complying with the Americans with Disabilities Act (42 U.S.C. ch. 126). Users report that ATVs/UTVs recreation connects them with nature, facilitates special activities in nature (such as hunting and fishing), and provides close access for wildlife observation (Mann and Leahy 2010). These pursuits are consistent with the goals of the System and the establishment purposes of many Refuges. However, ATVs/UTVs activity may create conflicts with other outdoor recreationists, often through vehicle noise and intrusion (Adams and McCool 2009).”

Non-licensed Off-road Vehicles (ATVs/UTVs) access on the refuge is very light and restricted to designated areas. This activity may result in some potential disturbance to wildlife. Minimal impacts in the form of trampling small vertebrates, invertebrates, and vegetation, and littering may also occur. Significant short-term, long-term or cumulative adverse impacts to refuge resources are not expected.

**DETERMINATION (CHECK ONE BELOW):**

- \_\_\_\_\_ Use is not compatible
- X   Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Non-licensed Off-road Vehicles (ATVs/UTVs) access will be limited to daylight hours only and restricted to designated roads, trails, and parking areas only.

**JUSTIFICATION:**

According to the National Wildlife Refuge System Improvement Act of 1997, priority public use activities should be encouraged and expanded where possible. It is through compatible wildlife-dependent public uses that the public becomes aware of and provides support for national wildlife refuges. Use of off-road vehicles on Clarks River NWR is prohibited, except for routes designated by the refuge manager or pursuant to a valid permit (43 CFR 36.11). Mobility-impaired ATV access supports certain wildlife-dependent activities such as hunting and fishing by providing a reasonable access accommodation.

Access via ATVs/UTVs can facilitate scientific research conducted on the Refuge. The Service encourages research on national wildlife refuges to promote new information which will improve the quality of refuge and other Service management decisions, to expand the body of scientific knowledge about fish and wildlife, their habitats, the use of these resources, appropriate resource management, and

the environment in general, and to provide the opportunity for students and others to learn the principles of field research.

Contractors occasionally need access for maintenance or treatment of rights-of-way, invasive species, or other wildlife habitat management.

Search and rescue occasionally request to have trainings on Clarks River NWR and could request the use of ATVs/UTVs during these trainings. Additionally, if someone is lost or hurt on the Refuge, search and rescue operations would use this equipment to facilitate saving lives.

By limiting this activity, it will not materially interfere with or detract from the mission of the NWRS or purposes for which Clarks River NWR was established.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

## References:

- Adams JC, McCool SF. 2009. Finite recreation opportunities: the Forest Service, the Bureau of Land Management, and off-road vehicle management. *Natural Resources Journal* 49:45–116.
- Banha F, Marques M, Anastacio PM. 2014. Dispersal of two freshwater invasive macroinvertebrates, *Procambarus clarkii* and *Physella acuta*, by off-road vehicles. *Aquatic Conservation: Marine and Freshwater Ecosystems* 24:582–591.
- Deisenroth D, Loomis J, Bond C. 2009. Non-market valuation of off-highway vehicle recreation in Larimer County, Colorado: implications of trail closures. *Journal of Environmental Management* 90:3490–3497.
- Fischman RL, Meretsky VJ, Freeman K, Lamm A, Missik L, Salmon S. 2017. An Evaluation of U.S. National Wildlife Refuge Planning for Off-Road Vehicle Use. *Journal of Fish and Wildlife Management* 8(1):xx-xx; e1944-687x. doi:10.3996/052016-JFWM-040.
- Havlick DG. 2002. No distant place: roads and motorized recreation on America's public lands. Washington, D.C.: Island Press.
- Jakus PM, Keith JE, Liu L, Blahna D. 2010. The welfare effects of restricting off-highway vehicle access to public lands. *Agricultural and Resource Economics Review* 39:89–100.
- Mann M, Leahy J. 2010. Social capital in an outdoor recreation context. *Environmental Management* 45:363–376.
- Switalski TA, Jones A. 2012. Off-road vehicle best management practices for forestlands: a review of scientific literature and guidance for managers. *Journal of Conservation Planning* 8:12–24.
- Trombulak SC, Frissell CA. 2000. Review of ecological effects of roads on terrestrial and aquatic communities. *Conservation Biology* 14:18–30.

**USE:**

Picnicking in association with Wildlife Dependent Activities

**DESCRIPTION OF USE:**

**(a) What is the use?**

Picnicking is an outdoor excursion in which the participants carry food with them and share a meal in the open air.

**(b) Where would the use be conducted?**

This use will be permitted on open areas of the Refuge. Several areas are considered public use "zones" of the Refuge with developed facilities for public access, such as Refuge trails, overlooks, and boardwalks, and as long as the proposed use does not conflict with the public use of those areas or is in sensitive areas managed for trust species. The designated picnic area at the office currently includes manicured grounds as well as tables.

**(c) When would this use be conducted?**

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

**(d) How would this use be conducted?**

Access to the refuge is open every day; however certain portions of the refuge may be closed to access by the public for purposes of sanctuary to migratory birds or for management activities. In addition, entry on all or portions of individual areas may be temporarily suspended by posting upon occasions of unusual or critical conditions affecting land, water, vegetation, wildlife populations, or public safety.

**(e) Why is this use being proposed?**

Picnicking as a lone activity is not priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 and against Code of Federal Regulations. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Picnicking has been occurring on the Refuge since early in the refuge's history. By permitting picnicking, the refuge gives visitors an opportunity to get a closer view of the refuge's important wetlands and the wildlife that depend on these wetlands, thus contributing to the public appreciation, understanding, and enjoyment of refuge habitats and wildlife. This use can also contribute to the mission of the National Wildlife Refuge System because it enables visitors to enjoy wildlife-dependent recreation, thus enhancing understanding and appreciation of conservation, and benefiting present and future generations of Americans.

This use is conducted to provide compatible educational and recreational opportunities for visitors to enjoy the resource and to gain understanding and appreciation for fish and wildlife, wild lands ecology and the relationships of plant and animal populations within the ecosystem, and wildlife management. Following these activities it is often customary for visitors to break for lunch or other meal under a picnic style setting. These activities, and the picnic that follows, provides wholesome, safe, outdoor recreation in a scenic setting, with the realization that those who come strictly for recreational enjoyment will be enticed to participate in the more educational facets of the public use program, and can then become informed advocates for the refuge and the Service.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

No off-setting costs are associated with this use.

#### **ANTICIPATED IMPACTS OF THE USE:**

The refuge expects picnicking associated with hunting, fishing, wildlife observation, wildlife photography, environmental education, and environmental interpretation will have negligible short-term, long-term, or cumulative impacts on the economy of the towns or county in which the refuge lies. We do not expect these activities to considerably alter the demographic or economic characteristics of the local community. No adverse impacts are foreseen to be associated with changes in the community character or demographic composition. In addition, impacts are expected to be negligible based on our observations of past visitor impacts from these uses.

Picnicking is expected to have negligible adverse short-term, long-term, or cumulative impacts on soils, litter, local or regional air quality, and hydrology or water quality. Negative impacts to water quality can also result from human waste and litter.

Picnicking is expected to have negligible adverse short-term, long-term, or cumulative impacts on waterfowl. Providing waterfowl sanctuaries will minimize some of these impacts and allow waterfowl to have undisturbed access to these areas during biologically critical periods of the day. To minimize waterfowl disturbance from these uses, the refuge has designated waterfowl sanctuaries that closed to hunting and other recreational use on a seasonal or annual basis.

This use is expected to have negligible adverse short-term, long-term, or cumulative impacts on shorebirds and landbirds. Disturbance to landbirds in proposed areas for wildlife observation, photography, hunting and fishing, and subsequently picnicking, is expected to be negligible since all visitors will be required to be on designated walking trails and access routes.

Impacts to fisheries from visitors engaged in picnicking are expected to be temporary and minor. Public outreach and education efforts in areas used by picnickers will emphasize conservation and importance of buffering of wetlands, connectivity for wildlife between forest, grassland, and wetlands.

Visitor use is increasing over time as local residents and visitors become increasingly aware of refuge opportunities, and as we progress in creating new facilities and programs. The economic benefits of increased tourism likely would also benefit local communities. Expanded facilities for environmental education and new or expanded visitor services programs are expected to increase public awareness of, and visitation to, the refuge, and enable staff to provide better customer service.

**DETERMINATION (CHECK ONE BELOW):**

- \_\_\_\_\_ Use is not compatible
- X   Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The refuge will manage the six priority public uses (hunting, fishing, wildlife observation, photography, environmental education, and interpretation) with the associated picnicking in accordance with Federal and State regulations and review it annually to ensure wildlife and habitat goals are achieved and that these programs are providing safe, high-quality experiences for participants. To ensure compatibility with refuge purposes and the mission of the Refuge System, in addition to those refuge-specific regulations for hunting, fishing, wildlife observation, photography, environmental education, and interpretation the following stipulations will need to be met:

- (1) No food is to be made available for use by wildlife and no wildlife shall be intentionally fed.
- (2) The public use program will be reviewed annually to ensure that it contributes to refuge objectives in managing quality recreational opportunities and protecting habitats, and is subject to modification if on-site monitoring by refuge personnel or other authorized personnel results in unanticipated negative impacts to natural communities, wildlife species, or their habitats. Refuge law enforcement officer(s) will promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions. Refuge law enforcement personnel will monitor all areas and enforce all applicable State and Federal regulations.
- (3) Refuge visitors are required to remove all trash and food products.
- (4) Areas may be closed on the refuge to protect resources or prevent unwanted disturbance.
- (5) Pets allowed on a leash.
- (6) The Visitor Contact Station is open weekdays from 7:00 a.m. to 3:30 p.m.

(7) Picnicking as a sole activity or as part of non-wildlife dependent activities is prohibited.

**JUSTIFICATION:**

Hunting, fishing, wildlife observation, photography, environmental education, and interpretation are priority wildlife-dependent uses for the Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). The Service's 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. Picnicking is seen as a reasonable part of these six priority activities.

Specific refuge regulations address equity and quality of opportunities for visitors and help safeguard refuge habitats. Impacts from this proposal, short-term and long-term, direct, indirect, and cumulative, are expected to be minor and are not expected to diminish the value of the refuge for its stated objectives. Available parking and size of the facilities will typically limit use at any given time, except during special events.

Conflicts between visitors are localized and are addressed through law enforcement, public education, and continuous review and updating to public use regulations. Conflicts are further reduced by the establishment of seasonal area closures.

Stipulations above will ensure proper control of the means of use and provide management flexibility should detrimental impacts develop. Allowing this use also furthers the mission of the Refuge System by providing renewable resources for the benefit of the American public while conserving fish, wildlife, and plant resources on the refuge.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or the purpose for which the refuge was established.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

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**USE:**

Recreational Fishing

**DESCRIPTION OF USE:**

**a) *What is the use?***

Recreational fishing or recreational angling is fishing for pleasure or leisure fishing, pastime fishing, sport fishing, game fishing, or subsistence fishing.

**(b) *Where would the use be conducted?***

Fishing is conducted on the Environmental Education and Recreation Area (EERA) pond, Clarks River, and the Canter Tract.

**(c) *When would this use be conducted?***

Fishing is conducted year-round from sunrise to sunset and is subject to regulations established by the State of Kentucky. Fish and Wildlife Service has specific regulations further restricting fishing by prohibiting commercial fishing and the use of certain fishing methods. The Refuge annual hunting and fishing permit is required to fish on the Refuge.

**(d) *How would this use be conducted?***

Several methods of fishing are employed, including boat fishing, wade fishing, and bank fishing. Boat and bank fishing are permitted, as provided by refuge special regulations and those published in Title 50, Code of Federal Regulations. Bank fishing will take place on designated areas with shallow slopes, mostly near existing footpaths and access trails.

**(e) *Why is this use being proposed?***

Recreational fishing (a wildlife-dependent activity) has been identified in the National Wildlife Refuge System Improvement Act of 1997 as a priority public use, provided it is compatible with the purposes for which the refuge was established.

Sport fishing in refuge waters is an integral part of the overall public use program. The refuge has constructed accessible piers, signs, and information kiosks to inform the public of the need for stewardship of public lands and waters and to increase the awareness of our natural resources.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A recreational fee is in the process of being implemented, which could off-set costs.

#### **ANTICIPATED IMPACTS OF THE USE:**

Recreational fishing can impact the aquatic community by direct and indirect mortality (both of target and non-target species), changes in species composition and other trophic effects, and changes within species (i.e. stunting and changes in behavior) when fishing occurs at high levels (Blaber et al. 2000, Allen et al. 2005, Lewin et al. 2006). Many of the targeted species at the refuge are introduced species such as common carp that compete with native fish species. Removal of individuals of these non-native species may benefit native species by reducing competition and predation (Cornelius 2006).

Fishing can cause disturbance to birds and other wildlife that use the refuge. Species likely to experience some level of disturbance include alligators, foraging wading birds (e.g., great blue heron, American bittern, and snowy egret) foraging and nesting waterfowl (e.g., mallard, cinnamon teal, gadwall, Canada goose, and ring-necked duck) and secretive marsh birds (e.g., rails), foraging and nesting passerines (e.g., red-winged blackbird and marsh wren), foraging raptors (e.g., osprey and bald eagle), and mammals (e.g., white-tailed deer and skunk).

Most research studies have focused on short-term responses to human disturbance such as flushing, nest abandonment, site avoidance, etc. Little information is available on long-term or large-scale responses such as relocation of major staging areas, changes in productivity and demographics, or changes in prey/forage selection. Fishing has been shown to affect the reproduction, distribution, behavior, and abundance of bird species (Bell and Austin 1985; Cooke 1987; Korschgen and Dahlgren 1992).

When lead fishing sinkers or jigs are lost through broken line or other means, birds can inadvertently eat them. Water birds often swallow lead when they scoop up pebbles from the bottom of a lake or river to help grind their food. Eagles ingest lead by eating fish which have themselves swallowed sinkers (Minnesota Pollution Control Agency 2012). Lead is highly toxic to fish, birds, and other animals (including humans) and therefore the use of lead fishing tackle is being banned in a growing number of states. Discarded tackle and line also pose a threat to fish-eating birds, is unsightly, and could cause a threat to aquatic biota.

Activities associated with fishing, such as human noise, would cause some birds to flush and go elsewhere. In addition, vegetation trampling, and deposition of litter or lost gear are likely to occur. Bank stability, soil compaction and water quality is impacted at the current participation levels and these impacts may increase occur should user numbers increase in the future.

As stated above, the number of anglers using the refuge is relatively low because there are limited places available for fishing opportunities. Since the level of fishing activity is low, there is very limited disturbance to birds and limited impacts to vegetation through trampling. Thus, impacts to fish and wildlife resources associated with this activity are not significant.

#### **DETERMINATION (CHECK ONE BELOW):**

\_\_\_\_\_ Use is not compatible

X  

Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The refuge will manage the six priority public uses (hunting, fishing, wildlife observation, photography, environmental education, and interpretation) with Federal and State regulations and review it annually to ensure wildlife and habitat goals are achieved and that these programs are providing safe, high-quality experiences for participants. Stipulations for this activity are located in Title 50 Code of Federal Regulations and Clarks River National Wildlife Refuge Hunting and Fishing Regulations (annual). Clarks River National Wildlife Refuge Hunting and Fishing Regulations (annual) permits are required for anyone who is also required to have Kentucky State fishing license and is engaged in fishing activities on the Refuge.

**JUSTIFICATION:**

Fishing is listed as a priority wildlife-dependent use for the National Wildlife Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). The Service's 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. Although fishing can result in disturbance to wildlife and habitat, disturbances on the refuge are expected to be intermittent, minor, and short-term, and are not expected to diminish the value of the refuge for its stated purposes. Facilitating this use on the refuge would increase visitor knowledge and appreciation of fish and wildlife resources. This enhanced understanding would foster increased public stewardship of natural resources and support for the Service's management actions in achieving the refuge purposes and the mission of the National Wildlife Refuge System.

There is more than an adequate amount of undisturbed habitat available to the majority of waterfowl, waterbirds, and other wildlife for escape and cover, such that their abundance and use of the refuge will not be measurably lessened from allowing fishing to occur. Stipulations will help reduce or eliminate any unwanted impacts of the use. The relatively limited number of individual animals expected to be adversely affected due to fishing will not cause wildlife populations to materially decline, the physiological condition and production of wildlife species will not be impaired, their behavior and normal activity patterns will not be altered dramatically, and their overall welfare will not be negatively impacted. Thus, allowing fishing will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established.

Any new lands purchased as part of Clarks River NWR can be open to fishing depending on the manager's discretion using professional judgment, as long as there is no significant negative impact to natural resources or visitor services.

**MANDATORY 15-YEAR RE-EVALUATION DATE:**

**References:**

Allen, J.D., R. Abell, Z. Hogan, C. Revenga, B.W. Taylor, R.L. Welcomme, and K. Winemiller.

2005. Overfishing in inland water. *Bioscience* 55:1041-1051.

Bell, D.V. and L.W. Austin. 1985. The game-fishing season and its effects on overwintering wildfowl. *Biological Conservation* 33:65-80.

Blaber, S. J. M., D. P. Cyrus, J. J. Albaret, C. V. Ching, J. W. Day, M. Elliott, M. S. Fonseca, D. E. Hoss, J. Orensanz, I. C. Potter, and W. Silvert. 2000. Effects of fishing on the structure and functioning of estuarine and nearshore ecosystems. *ICES Journal of Marine Science* 57:590-602.

Cooke, A.S. 1987. Disturbance by anglers of birds at Grafham Water. *ITE Symposium* 19:15-22.

Cornelius, L. 2006. Gee Creek watershed restoration background report. Washington State University, Vancouver, WA. 73 pp.

Korschgen, C.E. and R.L. Dahlgren. 1992. Human disturbances of waterfowl: causes, effects, and management. *Waterfowl Management Handbook*. U.S. Fish and Wildlife Service. Washington, D.C. 9 pp.

Lewin, W.C., R. Arlinghaus, and T. Mehner. 2006. Documented and potential biological impacts of recreational fishing: insights for management and conservation. *Reviews in Fisheries Science* 14:305-367.

Minnesota Pollution Control Agency. 2012. Let's get the lead out: non-lead alternatives for fishing tackle. Available at: <http://www.pca.state.mn.us/index.php/living-green/living-greencitizen/household-hazardous-waste/nontoxic-tackle-let-s-get-the-lead-out.html>. Accessed June 19, 2012.

**USE:**

Recreational Hunting of Big Game, Small Game, and Waterfowl

**DESCRIPTION OF USE:**

**a) *What is the use?***

Recreational hunting is hunting for migratory birds, big game, and/or small game for pleasure or leisure or for subsistence.

**(b) *Where would the use be conducted?***

Clarks River NWR has primarily forested habitat, being approximately 9,000 acres of forest on about 9,500 acres of land owned by the Fish & Wildlife Service. The use will be conducted within the refuge's boundary except for areas closed to the public.

**(c) *When would this use be conducted?***

Recreational hunting is conducted year-round. For small game, upland game, big game, turkey, and migratory birds except for waterfowl, the Refuge is open from two hours prior to sunrise until two hours after sunset unless bullfrog, raccoon, or opossum hunting. For waterfowl, the Refuge is open from two hours prior to sunset until noon. All waterfowl hunters must be out of the field by noon. Recreational hunting is subject to regulations established by the State of Kentucky. Fish and Wildlife Service has specific regulations further restricting fishing by prohibiting commercial fishing and the use of certain fishing methods. The Refuge annual hunting and fishing permit is required to hunt on the Refuge.

**(d) *How would this use be conducted?***

Recreational hunting is permitted, as provided by refuge special regulations and those published in Title 50, Code of Federal Regulations. The Refuge annual hunting and fishing permit is required to hunt on the Refuge.

**(e) *Why is this use being proposed?***

This compatibility determination considers hunting, which is one of the six priority wildlife-dependent recreation activities. The primary objectives of the hunting program (archery, firearm, handicapped and youth) on Clarks River NWR are to: 1) provide a high-quality recreational and educational experience for a diverse audience through a varied hunt program; 2) provide an opportunity for the youth of Kentucky to engage in hunting, instill a basic understanding of conservation measures, and the role of the U.S. Fish & Wildlife Service in the conservation picture; 3) foster support and knowledge of refuge goals and objectives by working in close association with the general public, Kentucky Department of Fish and Wildlife Resources through their assistance with the harvest and thus management of resident species on the refuge while providing safe, educational, and instructive opportunities; 4) allow for the harvest of big game, small game, and waterfowl on the refuge to help maintain healthy population levels and facilitate maintenance of quality habitat for endangered species, migratory birds, and native flora and fauna; and 5) to help control nuisance and exotic wildlife.

Clarks River NWR provides annual archery, primitive weapons, and firearms hunts for white-tailed deer and turkey, quota hunts for waterfowl, and small game hunts for rabbit, squirrel, quail, raccoon, opossum, and woodcock. All regular hunts are by refuge permit only and are conducted during specific periods

within the state's hunting seasons (general hunting seasons) for Marshall, McCracken, and Graves counties. Over 9,000 acres are currently open to public big game and small game hunting. Three designated periods are open to youth for hunts for white-tailed deer, squirrel, and turkey on the refuge.

Specific changes to the hunt program include: 1) developing a special hunting program to improve existing hunts to better accommodate individuals with disabilities on the refuge; 2) developing high quality, public hunts directed toward youths; 3) developing youth hunts to get the National Wildlife Refuge System message across; 4) provide permitted adult hunters opportunities for mentoring youth hunters; 5) updating the refuge website to provide public hunting information; 6) continuing with certain refinements to achieve a better economy in implementing and conducting the various hunts; 7) increasing law enforcement presence on the refuge during the various hunting seasons to prevent poaching and illegal hunting in partnership with the Law Enforcement Division of Kentucky Department of Fish and Wildlife Resources; and, 8) provide a web-based permitting system.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A recreational fee is in the process of being implemented, which could off-set costs.

#### **ANTICIPATED IMPACTS OF THE USE:**

Staff monitors both harvest trends and wildlife health to ensure that target species can be hunted at the refuge without appreciably adversely affecting these species populations. For the wildlife game species these monitoring activities include direct observation, consultation with state and Service species specialists, and review of current species survey information and research. Recent assessments of species hunted in the vicinity of the refuge indicate that those species are not facing a general decline. For waterfowl, additional annual assessments are based upon the distribution and abundance of food resources. The State of Kentucky manages resident game across broad landscapes and allows harvest of annual surpluses through recreational hunting. Although hunting causes mortality and temporary disturbance to waterfowl and other wildlife, harvesting populations within the carrying capacity of existing habitat ensures long-term health and survival of the species.

The refuge excludes hunting activities on portions of certain refuge units. Certain areas of the refuge are not hunted specifically to provide areas of sanctuary. In some locations, special hunts are used to manage hunting pressure and overall harvest at appropriate levels.

Spring turkey hunting has the most potential for conflicting with biological activities, rookeries, and nesting sites. Currently, no known rookeries or bald eagle nesting sites exist on the Refuge. Due to the dispersed and stealthy nature of turkey hunting, it presents minimal conflicts with other ground nesting wildlife in the spring.

The refuge is open during the hunting season to other priority public uses such as fishing, wildlife observation, wildlife photography, and environmental education and interpretation. To safely provide both hunting and non-hunting recreational uses, the refuge enforces a series of refuge-specific hunting regulations. Hunting is not allowed on certain units or is restricted by location, date or methods of take.

Refuge management activities can be accomplished without conflict with hunting activities through the use of administratively closed areas, timing of hunts, and methods of hunt.

**DETERMINATION (CHECK ONE BELOW):**

\_\_\_\_\_ Use is not compatible

  X   Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The refuge will manage the six priority public uses (hunting, fishing, wildlife observation, photography, environmental education, and interpretation) with Federal and State regulations and review it annually to ensure wildlife and habitat goals are achieved and that these programs are providing safe, high-quality experiences for participants. Stipulations for this activity are located in Title 50 Code of Federal Regulations and Clarks River National Wildlife Refuge Hunting and Fishing Regulations (annual). Clarks River National Wildlife Refuge Hunting and Fishing Regulations (annual) permits are required for anyone who is also required to have Kentucky State hunting license and is engaged in hunting activities on the Refuge.

**JUSTIFICATION:**

Suitable habitat exists on the refuge lands to support hunting as proposed. The viability of the game species populations proposed to be hunted will not be negatively affected by hunting according to state season guidelines, bag limits, and regulations. This use is being permitted because it is a priority public use. It will not diminish the primary purposes for which the refuge was established. This use is supported in the Refuge's Comprehensive Conservation Plan. It also meets the mission of the National Wildlife Refuge System by providing renewable resources for the benefit of the American public while conserving viable populations of fish, wildlife and plant resources on these lands.

Hunting is a priority public use on over 9,000 acres of the refuge. By allowing this use, we are providing opportunities and facilitating refuge programs in a manner and location that offer high quality, wildlife-dependent recreation and maintain the level of current wildlife values. The harvest of surplus animals is one tool used to manage wildlife populations at a level compatible with the environment, while providing wholesome recreational opportunities. Any new lands purchased as part of Clarks River NWR can be open to hunting depending on the manager's discretion using professional judgment, as long as there is no significant negative impact to natural resources or visitor services.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or the purpose for which the refuge was established.

**MANDATORY 15-YEAR RE-EVALUATION DATE:**



**USE:**

Release of Rehabilitated Wildlife (Captive or Feral) (Special Use Permit only)

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Wildlife rehabilitation is the care of injured or orphaned wild animals with the specific goal of returning them to their native habitat with an optimal chance of survival. This involves emergency care, long-term rehabilitation, conditioning for release and ultimately, release back into the wild. Wildlife species are occasionally treated for injury, illness, or orphaned and may be returned to their native habitat in the Refuge by a licensed wildlife rehabilitator.

**(b) *Where would the use be conducted?***

Clarks River NWR has primarily forested habitat, being approximately 9,000 acres of forest on about 9,500 acres of land owned by the Fish & Wildlife Service. The use will be conducted within the refuge's boundary and could include areas closed to the public, upon the manager's discretion.

**(c) *When would this use be conducted?***

This use would be conducted year-round.

**(d) *How would this use be conducted?***

The release of wildlife or plants would require a Special Use Permit including the following stipulations:

- Only a licensed wildlife rehabilitator or Refuge Staff may release local rehabilitated wildlife.
- Only wildlife native to the area may be released on the Refuge.
- Wildlife must be quarantined for a minimum of 2 weeks to check for diseases prior to release
- Any planned release must be coordinated with Refuge Staff.

Release of rehabilitated wildlife from the local area or refuge as well as release of wildlife for species recovery may be approved by the refuge manager under a special use permit.

**(e) *Why is this use being proposed?***

Release of wildlife is not a priority public uses of the National Wildlife Refuge System (Refuge System) under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). Introduction of plants and animals on a National Wildlife Refuge is prohibited by 50 Code of Federal Regulations (CFR) 27.52, except by Special Use Permit. Release of Wildlife does not support the biological goals and objectives of Clarks River National Wildlife Refuge, as defined in the comprehensive conservation plan. These goals and objectives emphasize promoting biological integrity, diversity, and environmental health. Allowing visitors to introduce animals or plants could lead to negative impacts to endangered species, migratory birds, and other wildlife and the habitats they rely on. Negative impacts may include introduction of exotic or invasive animals or plans, and spread of diseases. Control of already existing exotic species on the refuge remains a challenge and drain on limited refuge resources. However, several licensed rehabilitators are in the community and request to release wildlife from the local area that has been rehabilitated. The Refuge staff work closely with one licensed wildlife rehabilitator to receive for release injured wildlife originating on the refuge or surrounding area.

In these instances, the USFWS supports the release of rehabilitated wildlife on National Wildlife Refuges. Release of rehabilitated wildlife supports the Service's mission of working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

No off-setting cost is associated with this use.

**ANTICIPATED IMPACTS OF THE USE:**

Release of pets on National Wildlife Refuges can have serious consequences. Most exotic pets are not native to the area of release, but often they will adapt to the environment and cause problems within the local ecosystem. These invasive species usually take food, habitat, and resources from our native wildlife. Sometimes the invasive species will eat our native wildlife, significantly depleting numbers. Often the native animals being affected and pushed out by invasive species are those which are endangered or unstable to begin with. Another reason it is illegal to release pets is because of the possibility of disease transmission. A pet reptile could have picked up an illness, bacteria, parasites, etc in captivity that other wild animals have never been exposed to. Many of these conditions do not exhibit symptoms or give any indication that an animal is infected. Pets often come through distributors, importers, breeders, pet stores, trade shows, and/or flea markets, and often animals in these situations are subjected to severe overcrowding, malnourishment, and other poor husbandry conditions that can have detrimental effects on health. Pets can spread these illnesses and disease to wildlife, which can lead to significant damage to wild populations. Releasing of pets into the wild can potentially harm other wildlife or cause some ecological disaster; therefore it is not compatible on National Wildlife Refuges.

However, release of native rehabilitated wildlife poses minimal threats to the ecosystem such as overpopulation. Therefore each request will be considered on a case-by-case basis by the Refuge staff. In the last year, only 8 requests for release of native rehabilitated wildlife have been received, of which over half were release back into areas of the Refuge where they were initially discovered. These animals also help to maintain the biodiversity of an area. Due to the low number of requests, release of rehabilitated wildlife supports the Service's mission of working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

**DETERMINATION (CHECK ONE BELOW):**

☐ Use is not compatible

X  

Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

To ensure compatibility with refuge purposes and the mission of the Refuge System, in addition to those refuge-specific regulations the following stipulations will need to be met:

- 1) Only a licensed wildlife rehabilitator or Refuge Staff may release rehabilitated wildlife on Clarks River NWR
- 2) Only wildlife native to the area may be released on Clarks River NWR
- 3) Any planned release will be coordinated with Refuge Staff

**JUSTIFICATION:**

Service's mission of working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people supports release of native rehabilitated wildlife on refuge lands. Additionally, this supports priority wildlife-dependent uses for the Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)).

This activity will not materially interfere with, or detract from, the mission of the Refuge System or the purpose for which the refuge was established.

**MANDATORY 10-YEAR RE-EVALUATION DATE:** \_\_\_\_\_

**USE:**

Scientific Research and Inventory and Monitoring (Special Use Permit only)

**DESCRIPTION OF USE:**

**a) *What is the use?***

Research is conducted by Federal, State, and private entities, including the U.S. Geological Survey, State departments of natural resources, students and professors at State and private universities, and independent non-government researchers and contractors. This activity would allow permitted researchers access to the refuge's natural environment to conduct both short-term and long-term research projects. The refuge issues special use permits for research studies investigating biological, physical, or social issues and concerns to address refuge management information needs, and to enhance the understanding of trust resources.

**(b) *Where would the use be conducted?***

Clarks River NWR has primarily forested habitat, being approximately 9,000 acres of forest on about 9,500 acres of land owned by the Fish & Wildlife Service. The use will be conducted within the refuge's boundary.

**(c) *When would this use be conducted?***

This use would be conducted year-round.

**(d) *How would this use be conducted?***

In accordance with 16 U.S.C. 668dd(d) and 50 C.F.R. Part 25, Subpart D, the refuge manager is responsible for reviewing applications for special use permits (SUPs) and determining whether to authorize a proposed use. Uses must be "appropriate," and if so, also found to be "compatible" with the refuge purposes, and those of the Refuge System, prior to being approved and undertaken. These decisions are based on the Service's best professional judgment, consistent with Service regulations and policy, including the Policy on Maintaining the Biological Integrity, Diversity, and Environmental Health of the National Wildlife Refuge System (66 Fed. Reg. 3810 (2001); 601 FW 3).

Research permit requests will be considered on a case-by-case basis by the refuge manager. Permitted research should result in better knowledge of the refuge's natural and cultural resources and improve methods to manage, monitor, and protect these resources.

The refuge manager will always have the discretion to reevaluate the appropriateness and compatibility of any specific 'research by non-Service personnel' request at any time [603 FW 2.1 H(1), (2)]. A specific research project denial will be based on the refuge manager exercising sound professional judgment based on field experiences, knowledge of the refuge's natural resources, particularly its biological resources and available scientific information. When a refuge manager is exercising sound professional judgment, the refuge manager will use available information that may include consulting with others both inside and outside the Service. The refuge manager will specify in writing the rationale, conclusions, and decision when denying a specific research project request.

Sites for this use will be dependent on the particular study being conducted and could occur in a variety of habitat types. Access would be restricted by Special Use Permit to only the study sites needed to meet the objectives of the research.

The timing of research will be dependent on the type and subject(s) of the research project. Research could potentially occur throughout the year. Time-of-year restrictions could be imposed to protect threatened or endangered species or to prevent conflicts with other refuge uses or management activities. Certain volunteer-based bird surveys focus on specific seasons in the avian life cycle. For example the Christmas Bird Count is conducted during the winter. Upland bird surveys would primarily be conducted in the spring and summer, whereas wetland bird surveys may also be conducted during migration and wintering periods as well.

**(e) *Why is this use being proposed?***

The Service encourages and supports research and management studies on refuge lands that will improve and strengthen decisions on managing natural resources. The refuge manager encourages and seeks research that clearly relates to approved refuge objectives, improves habitat management, and promotes adaptive management. Priority research addresses information on better managing the Nation's biological resources that generally are important to agencies of the Department of Interior, the Refuge System, and state wildlife agencies, that address important management issues, or demonstrate techniques for managing species or habitats.

Consideration may also be given to research for other purposes that may not relate directly to refuge-specific objectives, but contribute to the broader enhancement, protection, use, preservation or management of native populations of fish, wildlife and plants, and their natural diversity in the region or the flyway. All proposals must comply with Service policy on compatibility.

Both the Refuge Manual and the Service Manual provide guidance on allowing research on refuges. The Refuge Manual (4 RM 6.2) lists three objectives that can be met by permitting research on refuges:

- (1) Promoting new information which will improve the quality of the refuge and other Service management decisions.
- (2) To expand the body of scientific knowledge about fish and wildlife, their habitats, the use of these resources, appropriate resource management and the environment in general.
- (3) To provide the opportunity for students and others to learn the principles of field research.

The Service Manual (603 FW 1.10D (4)) provides supplemental guidance in terms of the appropriateness of research on refuges, as follows: "We actively encourage cooperative natural and cultural research activities that address our management needs. We also encourage research related to the management of priority general public uses. Such research activities are generally appropriate. However, we must review all research activities to decide if they are appropriate or not as defined in section 1.11. Research that directly benefits refuge management has priority over other research."

The rationale for this conclusion is clearly stated in the preamble to that policy (71 Federal Regulation 36415):

Not all research may be appropriate. Some research may affect fish, wildlife, and plants in a manner neither consistent with refuge management plans nor compatible with refuge purposes or

the Refuge System mission. Some research may interfere with or preclude refuge management activities, appropriate off the refuge, appropriate and compatible public uses, or other research. Some research may be appropriate off the refuge, but not on the refuge. For example, some natural and physical research may not be wildlife-dependent and may be accomplished successfully at locations off the refuge. Because not all research support establishing purposes of refuges or the Refuge System mission, we cannot define research as a refuge management activity.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities. Refuge support for research may take the form of funding, in-kind services such as housing, the use of other refuge facilities, vehicles, boats, or equipment, the direct assistance of refuge staff in collecting data, providing historical records, conducting management treatments, or providing other assistance as appropriate. Generally, however, the bulk of the costs are incurred in staff time to review research proposals, coordinate with researchers, and write SUPs. In some cases, a research project may require only a few hours of staff time to review the proposal, coordinate with other reviewers, and write a SUP. In other cases, a research project may involve more significant staff time, because the refuge staff must coordinate with students and advisors and accompany researchers on site visits.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with this uses for Refuge staff time to insure the Refuge receives copies of data collected and findings. Plants and wildlife will be monitored to determine any impacts as a result of this use.

No off-setting costs currently exist for this use unless the Refuge receives a grant for research, inventory, and/or monitoring.

#### **ANTICIPATED IMPACTS OF THE USE:**

##### **Short-term impacts:**

Research activities may disturb fish and wildlife and their habitats. For example, the presence of researchers can cause waterfowl to flush from resting and feeding areas, cause disruption of birds on nests or breeding territories, or increase predation on nests and individual animals as predators follow human scent or trails. This is a potential impact of both volunteer-based bird surveys, other bird survey activities, and anuran surveys. Efforts to capture animals, such as for migratory bird banding and certain red-cockaded woodpeckers monitoring techniques, can cause disturbance, injury, or death to groups of wildlife or to individuals. To wildlife, the energy cost of disturbance may be appreciable in terms of disruption of feeding, displacement from preferred habitat and the added energy expended to avoid disturbance. These activities have been authorized in the past and Service personnel have not observed any serious impacts to refuge resources.

The removal of vegetation or sediments by core sampling methods, a common method for use in wetland research, can cause increased localized turbidity and disrupt non-target plants and animals. Sampling activities associated with many types of research activities can cause compaction of soils and the trampling of vegetation. Installation of posts, equipment platforms, collection devices and other research equipment in open water may present a hazard if said items are not adequately marked and/ or removed at



appropriate times or upon completion of the project. Research efforts may also discover methods that result in a reduction in impacts described above.

**Long-term impacts:**

Long term effects should generally be beneficial by gaining information valuable to refuge management. No long-term negative impacts are expected from the research activities described as none have been observed in the past; and the refuge manager can control the potential of long-term impacts through SUPs. Permits for multiyear research projects are renewed annually, providing the opportunity for an analysis of any impacts before issuing a SUP renewal.

**Cumulative impacts:**

Cumulative impacts will occur if multiple research projects were occurring on the same resources at the same time or if the duration of the research is excessive. In particular, the refuge must consider the potential impacts of non-Service research, in conjunction with any Service-sponsored research also taking place. However, no cumulative impacts are expected because refuge manager can control the potential for cumulative impacts through SUPs, prohibiting multiple research projects from affecting any given area or species at one time. Managers retain the option to prohibit research on the refuge which does not contribute to the mission of the refuge system or causes undue disturbance or harm. Managers retain the right to revoke or deny renewal for any SUP if unanticipated short-term, long-term, or cumulative impacts are noted.

Ideally, any research project conducted on the refuge would positively contribute to one or more of the refuge goals and/or objectives. There may be short-term disturbance to plants and wildlife during field investigations — this is unavoidable in most cases. We will conduct Intra-Service Section 7 Biological Evaluations for any proposal that could be anticipated to have an impact on any federally threatened or endangered species. We will pay particular attention to the joint Service-State Bald Eagle Protection Guidelines for Florida. These guidelines provide distance and time-of-year restrictions for activities that could disturb nesting or roosting eagles. We will ensure that the refuge or any non-Service researchers obtain any special permits, including collection and banding permits, required by State or Federal law prior to issuing a SUP.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

**General**

All Refuge regulations will be in force and the Permittee shall be responsible for the actions of all research and support personnel. Feeding any wildlife is prohibited. Field personnel can fish on their own time when properly licensed and in areas open and accessible to the general public. No pets or other animals are allowed on the Refuge during activities conducted under this permit. Violations of applicable laws or regulations may subject the Permittee and/or their agents to prosecution under State and/or Federal laws, and jeopardize the continuance of this permit.

The failure of the United States to enforce strict performance of the terms, conditions, covenants,



agreements, or stipulations of this permit, for access to conduct research activities on national wildlife Refuge lands, shall not constitute a waiver or relinquishment of the right of the United States to strictly enforce thereafter such terms, conditions, covenants, agreements, or stipulations which shall, at all times, continue in full force and effect.

The Permittee shall save, hold harmless, defend, and indemnify the United States of America, its agents and employees for loss, damages, or judgments and expenses on account of bodily injury, death or property damage, or claims for bodily injury, death, or property damage of any nature whatsoever, and by whomever made, arising out of the Permittee, their employees, subcontractors or agents with respect to conducting monitoring within the lands administered by Crystal River National Wildlife Refuge Complex.

Field personnel can hunt on their own time when properly licensed and in areas open and accessible to the general public. Otherwise, killing or harassing of wildlife is prohibited unless specifically stated in the special use permit and is required for the research project. It is illegal to molest or destroy the home, nest or dens of wildlife. Adverse impacts on fish, wildlife and the environment shall be minimized to the maximum extent possible.

Littering is prohibited. All cans, bottles, lunch papers, and operations trash must be removed daily. All vehicles will be equipped with a container to carry out and contain trash.

All applicable Federal and State regulations apply.

Permittee shall provide at least one written update annually that summarizes the permitted research and its current findings. Written reports should be of peer-review quality. A final report, of peer-review quality, will be provided to the Refuge within 12 months of the completion of field work. Copies of all publications related to this permit will be provided to the Refuge free of cost.

Publications and presentations should provide appropriate credit to the U.S. Fish and Wildlife Service, Clarks River National Wildlife Refuge.

Permits shall not be altered, erased or mutilated, and any permit which has been altered, erased, or mutilated shall immediately become invalid.

All individuals utilizing the Refuge are subject to inspection of permit, equipment, vehicles, boats and their contents by federal or state officers upon request.

#### **Pre- and Post-Research/Planning**

All necessary collection permits must be completed at the Permittee's expense. Copies of these permits shall be provided to the Refuge prior to Special Use Permit issuance.

At the time of the official permit request a working proposal covering project name, specific study location, problem being addressed along with specific objectives, research methods and materials, product to be produced, primary investigator, cooperators and key field persons, estimated funding amount and source of funding, and start date and completion date will be provided. Only those activities described within the proposal will be covered under this Special Use Permit. A telephone list shall be provided by the Permittee including names of key contacts in case of questions or emergencies.

The Permittee shall provide detailed maps or plats to the Refuge Manager clearly showing the proposed

project layout, travel/access routes, and work locations. The Permittee shall also provide details specifying the proposed mode of transportation (vehicle type) and frequency of visits to work sites.

Field workers and supervisors must understand what is required of them. Permittee will be responsible for all actions conducted while under the authority of this permit.

Within thirty days of conclusion of the research, a final check to remove all field equipment and supplies will be made. All keys on loan from the Refuge will need to be returned. All equipment left after project completion will be considered litter, unless written approval is obtained from the Refuge Manager. Any equipment and supplies left on the Refuge during the time of the study SHOULD NOT deter the scenic value of the area being studied. Any use of visual markers should be clearly presented within the study proposal.

### **Field Work**

The Permittee and their agents are required to possess a copy of this Special Use Permit at all times when on the Refuge.

The Permittee and their agents are required to wear U.S. Coast Guard approved life jackets when in boats.

If access is needed behind locked gates, keys are to be checked out. The Permittee will be responsible for any use of the key. All keys will be returned to the Refuge once permitted research is complete for each field season. Lost keys, or key misuse, may require re-keying of all Refuge locks at the cost of the Permittee.

The Permittee is not allowed to collect, remove or disturb any natural materials not specifically covered within their permit.

All vehicles, boats and equipment to be used will be in a safe and working condition. All vehicles and boats will meet or exceed federal and state requirements.

The Permittee is required to contact the Refuge prior to conducting initial fieldwork.

In the event a standard 4-wheel drive vehicle cannot be used to access interior Refuge habitats, use of other specialized transportation vehicles will be approved on a case-by-case basis by the Refuge Manager.

All field personnel should remain in the designated work areas. All work related travel to and from work areas will be confined to designated access routes. The Permittee may acquire authorization to use motorized vehicles in areas generally closed to such, however this authorization extends only to use of such vehicles on/in established roadways, trails, canals and waterways. Motorized vehicles may not be used for cross country travel unless specifically approved. Any questions field personnel have about where and how to access work areas must be directed to the Refuge Manager for guidance.

All boat operators must have completed a boater's safety course.

Vehicle / equipment maintenance shall not occur in the field.

Any activities not specifically addressed and approved are not permitted without notifying the Refuge manager and obtaining written specifications on the Special Use Permit stating the activity is authorized.

Permittee will not capture or retain wildlife without specific written permission from the U.S. FWS as well as having all required permits.

Permittee and/or designee will not impede or prohibit visitor use.

The permittee must acknowledge and agree that the Special Use Permit does not give the permittee or its designee exclusive use or access to any site, facility, or wildlife.

The U.S. Fish and Wildlife Service is not responsible for any mishaps or injuries that may occur during filming and associated activities. The permittee acknowledges and agrees to provide appropriate safety equipment and caution all people participating in the filming/photographic and associated activities about the hazards likely to be encountered on Clarks River NWR managed lands and waters.

The permittee shall save, hold harmless, defend and indemnify the United States of America, its agents, and employees for losses, damages, or judgments and expenses on account of fire or other peril, bodily injury, death, or property damage, or claims for bodily injury, death, or property damage of any nature whatsoever, and by whomsoever made, arising out of the activities of the permittee, its employees, subcontractors, or agents under this Special Use Permit.

#### **Final Product**

Permittee shall provide at least one written update annually that summarizes the permitted research and its current findings. Written reports should be of peer-review quality. A final report, of peer-review quality, will be provided to the Refuge within 12 months of the completion of field work. Copies of all publications related to this permit will be provided to the Refuge free of cost. Permittee will provide the U.S. Fish and Wildlife Service with at least one free copy of all other products generated on the refuge within 180 days of development of the product(s).

Any research paper, photo, or footage used from Clarks River NWR must include a credit, acknowledgement, or caption acknowledging the U.S. Fish and Wildlife Service: "Clarks River National Wildlife Refuge, Benton, Kentucky courtesy of the U.S. Fish and Wildlife Service". Any published report from the research must include the Refuge Manager as an author of the report and be reviewed by the Refuge.

#### **JUSTIFICATION:**

The Service encourages research on national wildlife refuges to promote new information which will improve the quality of refuge and other Service management decisions, to expand the body of scientific knowledge about fish and wildlife, their habitats, the use of these resources, appropriate resource management, and the environment in general, and to provide the opportunity for students and others to learn the principles of field research. In accordance with 50 CFR 26.41, research conducted by non-Service personnel, as described in this compatibility determination, will not materially interfere with, or detract from, the fulfillment of the Refuge System mission or the purposes for which the refuge was established.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or purposes for which the refuge was established. In addition, this activity will fulfill one or more purposes of the refuge or Refuge System.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

**USE:**

Use of Unmanned Aerial Systems / Drones (Special Use Permit only)

**DESCRIPTION OF USE:**

**(a) *What is the use?***

This use is the remote piloting of an unmanned aerial vehicle for recreational use to observe wildlife, take photos/videos, record events for educational materials, inventory and monitoring, and/or research.

**(b) *Where would the use be conducted?***

The use will be conducted within the refuge's boundary.

**(c) *When would this use be conducted?***

This use would be conducted year-round in areas open to the general public from sunrise to sunset.

**(d) *How would this use be conducted?***

Only unmanned aerial systems that are in support of conservation, Refuge purposes, the Refuge System mission, or for educational and interpretation purposes will be permitted. Requests that do not directly support these will be considered on a case-by-case basis. Permittee shall provide a detailed description of filming/photography plans, including site specific location, support equipment, number of persons involved, client name, description of the project theme and key messages, and other details that would allow for evaluation of the project. The special use permit will detail who, what, where, when, why and how the operation will be conducted. Before a refuge manager can consider permitting the use of a drone and prior to bureaus approving/issuing a special use permit for this type of mission the following must occur: The cooperator must secure their FAA approved Certificate of Waiver or Authorization (COA); The approving unit shall obtain a copy of the COA, and forward to the bureau National Aviation Manager (NAM) and OAS UAS specialist for review. (OPM - 11 Page 6) Once this is completed, then the permit may be issued on a case-by-case basis to ensure this use does not have the potential to disturb wildlife, impact refuge management, or interfere with scheduled programs.

**(e) *Why is this use being proposed?***

This use is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 Act of (16 1997. u.s.c: 668dd-668cc) as amended by the National Wildlife Refuge System Improvement Act of 1997. This activity however, can be linked to three of the six priority public uses: photography, environmental education and interpretation. This use has the potential to assist in scientific research, and Refuge Management actions such as inventory and monitoring. Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 " Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Therefore, although this use is typically not undertaken to benefit Refuge natural and cultural resources, it obviously provides participants an appreciation, or at least exposure to outdoor environments, and may provide a stronger connection to the Refuge and the mission of the FWS with specific parameters set to minimize disturbance of wildlife and visitors.

Under 50 CFR regulations for photography and filming, those required to obtain a special use permit for such commercial activities must pay a fee and agree to reimburse the government for any costs it incurs. An example of a case where this use could be considered is if this use is found to cause less potential disturbance of wildlife and less trampling of vegetation than allowing a film crew into certain areas of the Refuge. Specific policies have not been developed for this use in regard to environmental education/interpretation, scientific research, nor Refuge management. This use could assist Clarks River NWR in development of environmental education and interpretation materials. This use could also record certain Refuge events adding a new dimension to the Refuge's ability to connect with people through social media eg. facebook, twitter, and other websites. As new technologies are developed, this use could also assist in scientific research, and Refuge management such as inventory and monitoring, insect or beaver damage detection, storm damage detection, wildfire detection, invasive species detection, documentation of habitat management activities, and other habitat management activities. Under very limited and controlled circumstances, allowing this use could expand the Refuge's ability to connect with an ever growing technological public.

Therefore, although this use is typically not undertaken to benefit Refuge natural and cultural resources, it obviously provides participants an appreciation, or at least exposure to outdoor environments, and may provide a stronger connection to the Refuge and the mission of the FWS with specific parameters set to minimize disturbance of wildlife and visitors.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. However, a fee could be charged to off-set this cost.

#### **ANTICIPATED IMPACTS OF THE USE:**

Flying aircraft over or near wildlife can create stress that may cause significant harm and even death. Intentional disturbance of wildlife during breeding, nesting, rearing of young or other critical life history functions cannot be tolerated and would be in violation of 50 CFR 27.34 and 27.51. Although research is limited on the impacts of drones or unmanned aircraft known as Unmanned Aerial Systems (UAS), the Service has an internal website (<https://sites.google.com/a/fws.gov/region-1-unmanned-aerial-systems-uas-resource-guide/wildlifedisturbance>) that lists existing research dealing with wildlife disturbance and drones that was considered in this determination.

#### **DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

#### **STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Each request for this use for scientific data collection or for environmental education will be considered, and if appropriate, will be issued a special use permit (SUP) by the refuge manager. Each request must be presented in writing with details of who, what, where, when, why, and how the commercial operation will be conducted. Each request will be evaluated on its own merit. The refuge manager will use professional judgment and ensure that the request will have no considerable negative impacts to natural, cultural, or visitor services, does not violate refuge regulations, and contributes to the achievement of the refuge purpose or the Refuge System mission. Any approved SUP will outline the framework in which the use can be conducted and refuge staff will ensure compliance with the permit.

The refuge will manage this activity within the existing priority public uses (photography, environmental education, and scientific research) in accordance with Federal and State regulations and review it annually. To ensure compatibility with refuge purposes and the mission of the Refuge System, environmental education, and scientific research can occur on the refuge if the refuge-specific regulations are followed and following stipulations are met:

- (1) This use must be conducted in accordance with State and Federal regulations (50 CFR and FAA), and special refuge specific regulations published in the Public Use Regulations brochure.
- (2) The public use program will be reviewed annually to ensure that it contributes to refuge objectives in managing quality recreational opportunities and protecting habitats, and is subject to modification if on-site monitoring by refuge personnel or other authorized personnel results in unanticipated negative impacts to natural communities, wildlife species, or their habitats. Refuge law enforcement officer(s) will promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions. Refuge law enforcement personnel will monitor all areas and enforce all applicable State and Federal regulations.
- (3) Areas may be closed on the refuge to protect resources or prevent unwanted disturbance.
- (4) The public will not be allowed to fly their own UASs; only special use permitted UASs are authorized for use as part of the environmental education and research programs.
- (5) If disturbance of wildlife is noticed, the operator will cease and desist the flight.

## **JUSTIFICATION:**

The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, provides guidelines and directives for administration and management of all areas in the National Wildlife Refuge System, which includes "wildlife refuges, areas for the protection and conservation of fish and wildlife that are threatened with extinction, wildlife ranges, game ranges, wildlife management areas, or waterfowl production areas." In managing the National Wildlife Refuge System, the U.S. Fish and Wildlife Service (Service) must "assure that any present or future recreational use will be compatible with, and will not prevent accomplishment of, the primary purposes for which ... conservation areas were acquired or established ...." Congress has authorized the Secretary of the Interior "to administer such areas or parts thereof for public recreation when in his judgment public recreation can be an appropriate incidental or secondary use ...." Thus, national wildlife refuges are considered "closed" to recreational uses unless and until a Refuge Manager makes a positive compatibility determination.

"All national wildlife refuges are maintained for the primary purpose of developing a national program of wildlife and ecological conservation and rehabilitation." Pursuant to its authority to limit recreational use of areas within the National Wildlife Refuge System, the Service has promulgated regulations which prohibit refuge visitors from engaging in certain activities on refuge lands. Specific regulations that apply to the aforementioned determination include:

1) 50 C.F.R. § 27.34 prohibits "[t]he unauthorized operation of aircraft, including sail planes, and hang gliders, at altitudes resulting in harassment of wildlife, or the unauthorized landing or take-off on a national wildlife refuge, except in an emergency, is prohibited." Importantly, there is no definition of "aircraft" in the National Wildlife Refuge System regulations at 50 C.F.R. Chapter I, Subchapter C, which covers the National Wildlife Refuge System. However, the term is defined in 50 C.F.R. Chapter I, part 10, Subpart B. where "aircraft" is defined as "any contrivance used for flight in the air." This definition is consistent with Webster's Dictionary (2013) definition of "aircraft" as "any machine supported for flight in the air by buoyancy or the dynamic action of air on its surfaces, especially powered airplanes, gliders, and helicopters."

Thus, the common meaning of the term aircraft is broad enough to include manned and unmanned aircraft.

2) 50 C.F.R. § 27.51 prohibits "[d]isturbing, injuring, spearing, poisoning, destroying, collecting or attempting to disturb, injure, spear, poison, destroy or collect any plant or animal on any national wildlife refuge ... except by special permit. ... "

3) While 50 C.F.R. § 26.32 permits recreational uses, including "nature observation and photography" on refuge lands, but only after a finding by each Refuge Manager that the recreational uses are compatible with the purposes of that particular refuge. Visitors to refuge lands using unmanned aircraft while engaging in "commercial filming and still photography" must satisfy all applicable permit requirements set forth at 43 C.F.R. § 5.1, and failure to do so is a violation of 50 C.F.R. § 27.71. 43 C.F.R. § 5.12 defines "commercial filming" as "the ... recording of a moving image by a person, business, or other entity for a market audience with the intent of generating income." Under these regulations, those required to obtain a permit for such commercial activities must pay a fee and agree to reimburse the government for any costs it incurs.



The use of drones/UASs also is not consistent with goals and objectives of these refuges as identified the CCP /HMPs' which focus on migratory birds, at risk species, and threatened and endangered species. This use is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 Act of (16 1997. u.s.c: 668dd-668cc) as amended by the National Wildlife Refuge System Improvement Act of 1997. This activity, however, can be linked to three of the six priority public uses: photography, environmental education and interpretation. This use has the potential to assist in scientific research, and Refuge Management actions such as inventory and monitoring.

Approving this use would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the Refuge, nor would this use materially interfere with or detract from the purposes of the Refuge, nor cause an undue administrative burden. Whether unmanned aerial systems are used for photography, environmental education/interpretation, Refuge management actions, or scientific research, the Refuge manager must ensure this use does not have the potential to disturb wildlife, impact refuge management, or interfere with scheduled programs. Each request for this use will be considered on a case-by-case basis.

**MANDATORY 10-YEAR RE-EVALUATION DATE:**

**USE:**

Wildlife Observation, Wildlife Photography, Environmental Education, and Environmental Interpretation

**DESCRIPTION OF USE:**

**a) *What is the use?***

Wildlife observation, wildlife photography, environmental education, and environmental interpretation are the practice of noting, documenting, or learning about the occurrence or abundance of a living plant or animal species.

**(b) *Where would the use be conducted?***

Clarks River NWR has primarily forested habitat, being approximately 9,000 acres of forest on about 9,500 acres of land owned by the Fish & Wildlife Service. The use will be conducted within the refuge's boundary except for areas closed to the public. While the Refuge will be open to these uses, the majority of the public use infrastructure is located near the Refuge Environmental Education and Recreation Area (EERA). This area includes interpretive signs, informational kiosks, observation towers, and benches along the trail.

**(c) *When would this use be conducted?***

These uses are conducted year-round from sunrise to sunset. Fish and Wildlife Service has specific regulations further restricting certain uses. The Refuge annual hunting and fishing permit defines parameters of public uses on the Refuge. These uses may also be subject to regulations established by the State of Kentucky.

**(d) *How would this use be conducted?***

Fish and Wildlife Service has specific regulations restricting certain uses published in 50 CFR. The Refuge annual hunting and fishing permit defines parameters of public uses on the Refuge. These uses may also be subject to regulations established by the State of Kentucky. Brochures and maps depicting the roads and trails open for these uses are available at the Visitor Contact Station, kiosks, and on the refuge's Web site.

Environmental education and interpretation will be conducted by way of personal presentations by staff and volunteers, teachers and other youth leaders, and at special events and displays both on and off the refuge. Educational and interpretive information will also be provided via signage, kiosks, printed information, exhibits, audiovisual presentations, and lecture programs. Wildlife observation and photography are self-conducted and are facilitated through the availability of trails, viewing areas, tours, and informational materials. Wildlife observation programs such as birding field trips, and other nature walks are frequently given. A viewing scope is provided in designated areas.

**(e) *Why is this use being proposed?***

Wildlife observation, wildlife photography (including game cameras), environmental education, and environmental interpretation are priority public uses as defined by the National Wildlife Refuge System

Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and if compatible, are to receive enhanced consideration over other general public uses. The Clarks River NWR Comprehensive Conservation Plan identifies the following goals and objective in relation to these visitor services activities:

**Goal D. Visitor Services:** Promote environmental education and interpretation opportunities and enhance compatible wildlife-dependent public uses, including hunting, fishing, wildlife observation, and wildlife photography on Clarks River NWR.

- **Objective D-4 Wildlife Observation and Photography** - Provide a quality wildlife observation and photography program by continuing current opportunities and developing additional trails, trailhead parking, kiosk, and photography blind(s). Develop a recreation and education area on north end of refuge.
- **Objective D-5 Environmental Interpretation** - Provide a quality environmental interpretation program by maintaining existing and increasing interpretive signage, programs, and literature through increased partnerships and promotion of environmental interpretation programs.
- **Objective D-6 Environmental Education** - Increase curriculum-based educational information and programs. Maintain environmental education shelter and EERA. Increase partnerships to promote environmental education programs.

These uses are conducted to provide compatible educational and recreational opportunities for visitors to enjoy the resource and to gain understanding and appreciation for fish and wildlife, wild lands ecology and the relationships of plant and animal populations within the ecosystem, and wildlife management. These uses will provide opportunities for visitors to observe and learn about wildlife and wild lands at their own pace in an unstructured environment and to observe wildlife habitats firsthand. These uses will enhance the public's understanding of natural resource management programs and ecological concepts to enable the public to better understand the problems facing our wildlife/wild lands resources, to realize what effect the public has on wildlife resources, to learn about the Service's role in conservation, to better understand the biological facts upon which Service management programs are based, and to foster an appreciation for the importance of wildlife and wild lands. It is anticipated that participation in these uses will result in a more informed public, with an enhanced stewardship ethic and enhanced support and advocacy for Service programs.

These uses will also provide wholesome, safe, outdoor recreation in a scenic setting, with the realization that those who come strictly for recreational enjoyment will be enticed to participate in the more educational facets of the public use program, and can then become informed advocates for the refuge and the Service.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support all of these activities with the exception of environmental education and interpretation. The Refuge relies on volunteers and partners to help support environmental education and interpretation. Compliance with refuge regulations is handled within the regular duties of the Station law enforcement officer.

Facilities or materials needed to support this use include maintaining access roads, parking areas, gates, roadside pull-offs, kiosks, signs, the Visitor Contact Station, observation platforms, and hiking trails; and

providing information in refuge publications and the refuge's Web site. Funding for improvements to visitor amenities is lacking in the current budget, however additional funding for visitor services improvements can come from challenge cost share projects, grant funds, and contributions. As funding is available, the refuge will improve projects and facilities.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A recreational fee is in the process of being implemented, which could off-set costs of visitor amenities.

#### **ANTICIPATED IMPACTS OF THE USE:**

The refuge expects that wildlife observation, wildlife photography, environmental education, and environmental interpretation will have some short-term, long-term, or cumulative impacts on the economy of the towns or county in which the refuge lies. We do not expect these activities to considerably alter the demographic of economic characteristics of the local community. No adverse impacts are foreseen to be associated with changes in the community character or demographic composition.

Wildlife observation, wildlife photography, environmental education, and interpretation are expected to have negligible adverse short-term, long-term, or cumulative impacts on soils, local or regional air quality, and hydrology or water quality. Environmental education activities that involve the sampling of wetlands and ponds could cause temporary, localized, minor impacts on water quality as the students disturb the bottom of the pond or walk on the marsh to gather specimens. Negative impacts to water quality can also result from human waste and litter.

Wildlife observation, wildlife photography, environmental education, and interpretation are expected to have negligible adverse short-term, long-term, or cumulative impacts on vegetation because any increases in visitation are not expected to have any negative impacts to vegetation from what is already occurring. Additionally, walking, jogging, hiking, wildlife viewing, photography, and environmental education programs can result in trampling of vegetation. The staff has not observed any impacts as a result of trampling of vegetation under current conditions.

Wildlife observation, wildlife photography, environmental education, and interpretation are expected to have negligible adverse short-term, long-term, or cumulative impacts on waterfowl. Providing waterfowl sanctuaries will minimize some of these impacts and allow waterfowl to have undisturbed access to these areas during biologically critical periods of the day. To minimize waterfowl disturbance from these uses, the refuge has designated waterfowl sanctuaries that closed to hunting and other recreational use on a seasonal or annual basis.

This use is expected to have negligible adverse short-term, long-term, or cumulative impacts on shorebirds and landbirds. We expect indirect impacts to landbirds to increase due to proposed expansions in public use activities including wildlife observation, wildlife photography, environmental education and interpretation. Disturbance to landbirds in proposed areas for wildlife observation, photography, and fishing is expected to be negligible since all visitors will be required to be on designated walking trails and access routes.

Wildlife observation, wildlife photography, environmental education, and interpretation are expected to have negligible adverse short-term, long-term, or cumulative impacts on secretive marsh and waterbirds. An increase in the number of hiking trails, particularly in or near wetland areas, has the potential to

increase disturbance to secretive marsh and waterbirds. We expect negligible impacts to secretive marsh and waterbirds due to proposed expansions in public use activities.

Impacts to fisheries from visitors engaged in wildlife observation, photography, environmental education and interpretation are expected to be temporary and minor. Use of boats and canoes will cause increased suspension of bottom sediments, which should not adversely affect biological oxygen demand for fisheries resources.

Wildlife observation, wildlife photography, environmental education, and interpretation are expected to have negligible adverse short-term, long-term, or cumulative impacts on mammals. We also evaluated these uses for their potential to benefit or adversely affect amphibians and reptiles or their habitats used for mating, reproduction, over-wintering, and foraging. Public outreach and education efforts by the refuge that emphasize buffering of wetlands, connectivity and easy access between forest, grassland, and wetlands, protection of vernal pools, and augmentation of patch size will benefit amphibians and reptiles on an even larger scale where embraced by other landowners. Additionally, impacts to invertebrates such as butterflies, moths, other insects, and spiders are expected to be negligible.

The beneficial impacts of providing the existing level of wildlife-dependent activities, with some modest increases, include helping meet existing and future demands for outdoor recreation and education. Visitor use is increasing over time as local residents and visitors become increasingly aware of refuge opportunities, and as we progress in creating new facilities and programs. The economic benefits of increased tourism likely would also benefit local communities. According to the 2016 Banking on Nature Report, Clarks River NWR generated more than \$1.8 million in local economic effects from recreational visits.

Expanded facilities for environmental education and new or expanded visitor services programs are expected to increase public awareness of, and visitation to, the refuge, and enable staff to provide better customer service. We expect a certain level of inconvenience during the construction of refuge facilities. The adverse effects generally are short-term, and more than offset by the long-term gains in public education and appreciation. Impacts to refuge resources are expected to be negligible.

**DETERMINATION (CHECK ONE BELOW):**

☐ Use is not compatible

☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The refuge will manage these four priority public uses (wildlife observation, photography (including game cameras), environmental education, and interpretation) in accordance with Federal and State regulations and review it annually to ensure wildlife and habitat goals are achieved and that these programs are providing safe, high-quality experiences for participants.

To ensure compatibility with refuge purposes and the mission of the Refuge System, wildlife observation, photography, environmental education, and interpretation can occur on the refuge if the refuge-specific regulations are followed and following stipulations are met:

(1) This use must be conducted in accordance with State and Federal regulations (50CFR), and special refuge specific regulations published in the Public Use Regulations brochure.

(2) The public use program will be reviewed annually to ensure that it contributes to refuge objectives in managing quality recreational opportunities and protecting habitats, and is subject to modification if on-site monitoring by refuge personnel or other authorized personnel results in unanticipated negative impacts to natural communities, wildlife species, or their habitats. Refuge law enforcement officer(s) will promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions. Refuge law enforcement personnel will monitor all areas and enforce all applicable State and Federal regulations.

(3) Areas may be closed on the refuge to protect resources or prevent unwanted disturbance.

(4) Pets allowed on a leash.

(5) The Visitor Contact Station is open weekdays from 7:00 a.m. to 3:30 p.m..

(6) The activities prohibited are identified in 50CFR Part 27.

#### **JUSTIFICATION:**

Wildlife observation, photography, environmental education, and interpretation are priority wildlife-dependent uses for the Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). The Service's 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.

Specific refuge regulations address equity and quality of opportunities for visitors and help safeguard refuge habitats. Impacts from this proposal, short-term and long-term, direct, indirect, and cumulative, are expected to be minor and are not expected to diminish the value of the refuge for its stated objectives. Available parking and size of the facilities will typically limit use at any given time, except during special events.

Conflicts between visitors are localized and are addressed through law enforcement, public education, and continuous review and updating to public use regulations. Conflicts are further reduced by the establishment of seasonal area closures.

Stipulations above will ensure proper control of the means of use and provide management flexibility should detrimental impacts develop. Allowing this use also furthers the mission of the Refuge System by providing renewable resources for the benefit of the American public while conserving fish, wildlife, and plant resources on the refuge.

This activity will not materially interfere with, or detract from, the mission of the Refuge System or the purpose for which the refuge was established.



**MANDATORY 15-YEAR RE-EVALUATION DATE:**

**USE:**

Exercise and Meditation

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Like walking and hiking, meditation, jogging and running can be another means to observe wildlife and reconnect with nature but its primary goal is personal health. Exercise and meditation would be allowed as a means to facilitate connection to natural resources and a sense of stewardship for the Refuge system.

**(b) *Where would the use be conducted?***

Exercise and meditation will only be permitted at public use "zones" of the Refuge (excluding office buildings) with developed facilities for public access, such as Refuge trails, overlooks, and boardwalks, and as long as the proposed use does not conflict with the public use of those areas or is in sensitive areas managed for trust species.

While exercise and meditation can have the potential to cause wildlife disturbance, most users request to host these events at the Refuge's Environmental Education and Recreation Area (EERA). This area is arranged for extensive public use with limited wildlife disturbance. The area is situated next to a subdivision and has miles of trails and a fishing pond for visitors. The Refuge routinely holds environmental education and interpretation events at the EERA hosting 100-150 children at each event. A section of this area is closed to the public from November 1 through March 31 to reduce disturbance to wildlife.

**(c) *When would this use be conducted?***

Exercise and meditation would be permitted from sunrise until sunset.

**(d) *How would this use be conducted?***

Access to the refuge is open every day; however certain portions of the refuge may be closed to access by the public for purposes of sanctuary to migratory birds or for management activities. In addition, entry on all or portions of individual areas may be temporarily suspended by posting upon occasions of unusual or critical conditions affecting land, water, vegetation, wildlife populations, or public safety.

**(e) *Why is this use being proposed?***

Exercise and meditation as a lone activity are not priority public uses of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

These uses may provide a connection to natural resources and a sense of stewardship for the Refuge system. Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

Groups greater than 10 individuals would be required to obtain a special use permit, which requires administrative time to complete. However, a fee could be charged to off-set this cost.

#### **ANTICIPATED IMPACTS OF THE USE:**

Exercise (jogging and running) and meditation on native surfaces can cause structural damage to plants and increase soil compaction. The degree of surface compaction is dependent on topography, soil structure, and soil moisture. Impacts of trampling on vegetation and soils are unlikely to occur on the well-defined, mulched trails, gravel roads, or paved surfaces. The Service repairs, operates, and patrols the trails and roads. Maintenance activities include mulching, pesticide spraying, road grading, and gravel replenishment, as needed. Well-maintained paved roads provide an appropriate surface for this type of user.

Exercise (jogging and running) and meditation can cause wildlife disturbance. Immediate responses by wildlife to recreational activity can range from behavioral changes, physiological changes, or mortality (Knight and Cole 1995). The long-term effects are more difficult to assess. Wildlife responses to human disturbance include avoidance, habituation, and attraction (Knight and Cole 1991). A key factor in predicting how wildlife would respond to disturbance is the predictability of the activity within the habitat. The use of trails or boardwalks for wildlife viewing during predictable times will mitigate the impacts (Oberbillig 2001). Wildlife has a greater reaction to humans moving unpredictably (Gabrielsen and Smith 1995). Migratory wildlife tend to be more susceptible to human disturbance (Klein 1993).

Wildlife may also be attracted to human presence if provided a reward. Habituation of wildlife to visitors may increase mortality of wildlife due to nuisance behavior, vehicle collisions, or illegal harvest. Visitors are encouraged to use developed trails, roads, boardwalks, and overlooks to limit disturbances and concentrate visitor activities to less sensitive areas.

Trails attract a variety of user groups who often have conflicting needs. Cross-country jogging may appeal to many users and greater impact to the environment and wildlife would be expected in these areas. People with disabilities may be particularly affected by trail conflicts if they do not have the ability to quickly detect or react to hazards or sudden changes in the environment. If the number of users increases as expected, the potential for accidents or user group conflicts may also increase.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Exercise (jogging and running) and meditation would occur only on designated trails and paved and gravel roads and the abandoned railroad tracks that are owned by Clarks River NWR.

No cross country (off-trail) exercises (jogging and running) would be allowed.

Training runs by high school and collegian sports teams would be allowed to occur along refuge paved and gravel roads under a Special Use Permit. Again, no cross-country exercises would be allowed.

Exercise (jogging and running) and meditation would be restricted to daylight hours only.

A Federal Wildlife Officer will help to promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions.

**JUSTIFICATION:**

Exercise (jogging and running) and meditation are not a wildlife-dependent public use of the refuge as defined by statute (16 U.S.C. 668dd et seq.), but it can contribute to the fulfillment of refuge purposes by connecting people with nature. Potential for wildlife disturbance is minimal given the non-threatening, indirect approach of this activity. Restricting the disturbance to designated established roads would increase the predictability of public use on the refuge, allowing wildlife to habituate to nonthreatening activities. Moreover, consolidating compatible recreational activities to the Environmental Education and Recreation Area (EERA) reduces habitat fragmentation. These impacts would be monitored. Direct costs to administer existing levels of jogging on the refuge would be minor. This activity will not materially interfere with, or detract from, the mission of the Refuge System or purposes for which the refuge was established. In addition, this activity will fulfill one or more purposes of the refuge or Refuge System.

**MANDATORY 10-YEAR RE-EVALUATION DATE:** \_\_\_\_\_

**References:**

Gabrielson, G. W. and E.N. Smith 1995. Physiological responses of wildlife to disturbance. Pages 95-107 in R. L. Knight and K. J. Gutzwiller, ed. *Wildlife and Recreationists; coexistence through management and research*. Island Press, Washington, D. C. 372 pp.

Klein, M. L. 1993. Waterbird behavioral responses to human disturbances. *Wildlife Society bulletin* 21: 31-39.

Knight, R.L., Cole, D.N. 1991. *Effects of recreational activity on wildlife in wildlands*. Transcripts of the 56th North American Wildlife and Natural Resources Conference (238-246).

Knight, R.L., and D.N. Cole. 1995. Factors that influence wildlife responses to recreationists. Pages 71-79 in R. L. Knight and K.J. Gutzwiller (eds.) *Wildlife and recreationists; coexistence through management and research*. Island Press, Washington, D.C.

Oberbillig, D.R. 2001. Providing positive wildlife viewing experiences. Deborah Richie Communications, Missoula, MT.

**USE:**

Recreational Bow-fishing

**DESCRIPTION OF USE:**

**a) *What is the use?***

Recreational bow-fishing is using a bow to fish for pleasure or leisure fishing, sport, game, or subsistence.

**(b) *Where would the use be conducted?***

Bow fishing would be conducted on the Clarks River, Canter Tract, and in other areas of the Refuge where open standing water occurs when open to the public. Bow fishing would be prohibited in the Environmental Education and Recreation Area (EERA) and in areas closed to the public for the benefit of wildlife.

**(c) *When would this use be conducted?***

Fishing is conducted year-round from sunrise to sunset and is subject to regulations established by the State of Kentucky. Fish and Wildlife Service has specific regulations further restricting fishing by prohibiting commercial fishing and the use of certain fishing methods. The Refuge annual hunting and fishing permit is required to fish on the Refuge.

**(d) *How would this use be conducted?***

Recreational bow-fishing consist of taking rough fish (except alligator gar) year-round by long bow, crossbow, compound bow, recurve bow or pneumatic air arrow launching device.

**(e) *Why is this use being proposed?***

Recreational fishing (a wildlife-dependent activity) has been identified in the National Wildlife Refuge System Improvement Act of 1997 as a priority public use, provided it is compatible with the purposes for which the refuge was established.

Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, the Southeast Regional Priorities is to accomplish the US FWS 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."

Sport fishing in refuge waters is an integral part of the overall public use program. Recreational fishing is a common public use in refuge waters, where fish populations support a sustainable harvest under a regulated fishing program. Recreational bow-fishing is a new but growing sport. As part of policy, Clarks River NWR should expand public uses on the Refuge when appropriate and compatible, therefore bow fishing will be a new use allowed on the Refuge.

#### **AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A recreational fee is in the process of being implemented, which could off-set costs.

#### **ANTICIPATED IMPACTS OF THE USE:**

Recreational bow-fishing can impact the aquatic community by direct and indirect mortality (both of target and non-target species), changes in species composition and other trophic effects, and changes within species (i.e. stunting and changes in behavior) when fishing occurs at high levels (Blaber et al. 2000, Allen et al. 2005, Lewin et al. 2006). Many of the targeted species at the refuge are introduced species such as common carp that compete with native fish species. Removal of individuals of these non-native species may benefit native species by reducing competition and predation (Cornelius 2006).

Fishing can cause disturbance to birds and other wildlife that use the refuge. Species likely to experience some level of disturbance include foraging wading birds (e.g., great blue heron, American bittern, and snowy egret) foraging and nesting waterfowl (e.g., mallard, cinnamon teal, gadwall, Canada goose, and ring-necked duck) and secretive marsh birds (e.g., rails), foraging and nesting passerines (e.g., red-winged blackbird and marsh wren), foraging raptors (e.g., osprey and bald eagle), and mammals (e.g., white-tailed deer and skunk).

Most research studies have focused on short -term responses to human disturbance such as flushing, nest abandonment, site avoidance, etc. Little information is available on long-term or large-scale responses such as relocation of major staging areas, changes in productivity and demographics, or changes in prey/forage selection. Fishing has been shown to affect the reproduction, distribution, behavior, and abundance of bird species (Bell and Austin 1985; Cooke 1987; Korschgen and Dahlgren 1992).

Discarded tackle and line also pose a threat to fish-eating birds, is unsightly, and could cause a threat to aquatic biota.

Activities associated with bow-fishing, such as human noise, would cause some birds to flush and go elsewhere. In addition, vegetation trampling, and deposition of litter or lost gear are likely to occur.

Bank stability, soil compaction and water quality is impacted at the current participation levels and these impacts may increase should user numbers increase in the future.

As stated above, the number of anglers using the refuge is relatively low because there are limited places available for bow-fishing opportunities. Since the level of fishing activity is low, there is very limited disturbance to birds and limited impacts to vegetation through trampling. Thus, impacts to fish and wildlife resources associated with this activity are not significant.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

The refuge will manage the six priority public uses (hunting, fishing, wildlife observation, photography, environmental education, and interpretation) with Federal and State regulations and review it annually to ensure wildlife and habitat goals are achieved and that these programs are providing safe, high-quality experiences for participants. Stipulations for this activity are located in Title 50 Code of Federal Regulations and Clarks River National Wildlife Refuge Hunting and Fishing Regulations (annual). Clarks River National Wildlife Refuge Hunting and Fishing Regulations (annual) permits are required for anyone who is also required to have Kentucky State fishing license and is engaged in fishing activities on the Refuge. Bow-fishing regulations will be the same as the State of Kentucky.

Bow-fishing regulations will be the same as the State of Kentucky which currently include:

- Sport fish may not be taken with this gear.
- Arrows must have a barbed or retractable style point that has a line attached for retrieval.
- State regulations apply to limits on rough fish.
- Bow anglers cannot sell paddlefish or their roe taken by bow and arrow.
- Paddlefish and catfish taken by bow and arrow must be taken into immediate possession and cannot be culled.
- Fish taken by bow must not be discarded on the bank. Bank disposal is littering and subject to a fine.

Additional stipulations include:

- Bow fishing is prohibited at the Refuge Environmental Education and Recreation Area (EERA) and in areas closed to the public for the benefit of wildlife.

**JUSTIFICATION:**

Recreational fishing is listed as a priority wildlife-dependent use for the National Wildlife Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)).

The Service's 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. Although bow-fishing can result in disturbance to wildlife and habitat, disturbances on the refuge are expected to be intermittent, minor, and short-term, and are not expected to diminish the value of the refuge for its stated purposes. Facilitating this use on the refuge would increase visitor knowledge and appreciation of fish and wildlife resources. This enhanced understanding would foster increased public stewardship of natural resources and support for the Service's management actions in achieving the refuge purposes and the mission of the National Wildlife Refuge System.

There is more than an adequate amount of undisturbed habitat available to the majority of waterfowl, waterbirds, and other wildlife for escape and cover, such that their abundance and use of the refuge will not be measurably lessened from allowing fishing to occur. Stipulations will help reduce or eliminate any unwanted impacts of the use. The relatively limited number of individual animals expected to be adversely affected due to fishing will not cause wildlife populations to materially decline, the physiological condition and production of wildlife species will not be impaired, their behavior and normal activity patterns will not be altered dramatically, and their overall welfare will not be negatively impacted. Thus, allowing fishing will not materially interfere with or detract from the mission of the National Wildlife Refuge System or the purposes for which the refuge was established.

#### **MANDATORY 15-YEAR RE-EVALUATION DATE:**

#### **References:**

- Allen, J.D., R. Abell, Z. Hogan, C. Revenga, B.W. Taylor, R.L. Welcomme, and K. Winemiller. 2005. Overfishing in inland water. *Bioscience* 55:1041-1051.
- Bell, D.V. and L.W. Austin. 1985. The game-fishing season and its effects on overwintering wildfowl. *Biological Conservation* 33:65-80.
- Blaber, S. J. M., D. P. Cyrus, J. J. Albaret, C. V. Ching, J. W. Day, M. Elliott, M. S. Fonseca, D. E. Hoss, J. Orensanz, I. C. Potter, and W. Silvert. 2000. Effects of fishing on the structure and functioning of estuarine and nearshore ecosystems. *ICES Journal of Marine Science* 57:590-602.
- Cooke, A.S. 1987. Disturbance by anglers of birds at Grafham Water. *ITE Symposium* 19:15-22.
- Cornelius, L. 2006. Gee Creek watershed restoration background report. Washington State University, Vancouver, WA. 73 pp.
- Korschgen, C.E. and R.L. Dahlgren. 1992. Human disturbances of waterfowl: causes, effects, and management. *Waterfowl Management Handbook*. U.S. Fish and Wildlife Service. Washington, D.C. 9 pp.
- Lewin, W.C., R. Arlinghaus, and T. Mehner. 2006. Documented and potential biological impacts of recreational fishing: insights for management and conservation. *Reviews in Fisheries Science* 14:305-367.



**USE:**

Non-motorized Competitive Races Event

**DESCRIPTION OF USE:**

**(a) *What is the use?***

Competitive racing involves an organized event where participants compete to complete the designated course to achieve the fastest time. Competitive races can be used for a variety of purposes including but not limited to organizational fundraising, charity fundraising, official races for national/international rankings, and community engagement. While competitive racing can include many forms of transportation, only non-motorized forms of transportation will be considered under the special use permit. Each event will be required to include an environmental education or outreach component for the appropriate refuge. This use would be allowed as a means to facilitate connection to natural resources and a sense of stewardship for the Refuge system.

**(b) *Where would the use be conducted?***

This use will only be permitted at public use "zones" of the Refuge (excluding office buildings) with developed facilities for public access, such as Refuge trails, overlooks, and boardwalks, and as long as the proposed use does not conflict with the public use of those areas or is in sensitive areas managed for trust species.

While non-motorized competitive races can have the potential to cause wildlife disturbance, most users request to host these events at the Refuge's Environmental Education and Recreation Area (EERA). This area is arranged for extensive public use with limited wildlife disturbance. The area is situated next to a subdivision and has miles of trails and a fishing pond for visitors. The Refuge routinely holds environmental education and interpretation events at the EERA hosting 100-150 children at each event. A section of this area is closed to the public from November 1 through March 31 to reduce disturbance to wildlife.

**(c) *When would this use be conducted?***

Competitive racing would be permitted from sunrise until sunset.

**(d) *How would this use be conducted?***

Access to the refuge is open every day; however certain portions of the refuge may be closed to access by the public for purposes of sanctuary to migratory birds or for management activities. In addition, entry on all or portions of individual areas may be temporarily suspended by posting upon occasions of unusual or critical conditions affecting land, water, vegetation, wildlife populations, or public safety.

Each request for this use will be considered, and if suitable, will result in a special use permit being issued by the Refuge Manager. Each request must be presented in writing with details of who, what, where, when, why and how the event will be conducted. Each request will be evaluated on its own merit. The Refuge Manager will use professional judgment in ensuring that the request will have no considerable negative impacts; will not violate Refuge regulations; and that it will contribute to the achievement of the Refuge purpose or the Refuge System mission. Special needs will be considered on a case-by-case basis and are subject to the Refuge Manager's approval and may include a secondary component negotiated to ensure compatibility (if appropriate). Any approved special use permit will outline the framework in

which the use can be conducted, and Refuge staff will ensure compliance with the permit. If the number of requests for competitive races expands dramatically, this use and its stipulations to ensure compatibility may need to be re-evaluated prior to the mandatory re-evaluation date.

**(e) *Why is this use being proposed?***

Competitive racing as a lone activity is not a priority public use of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997. However, Clarks River NWR 2012 Comprehensive Conservation Plan (CCP) Goal D – Objectives D-7 specifically relates to promoting Special Uses such as biking and horseback riding on Clarks River NWR when appropriate and compatible. Clarks River NWR is recognized as a top priority refuge in connecting people with nature in the 2016 "Focusing Where It Matters Most" - A Plan to Further Align our workforce in Support of Priorities. Additionally, a Southeast Regional Priority is to accomplish the US FWS 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."

This use may provide a connection to natural resources and a sense of stewardship for the Refuge system. Using professional judgment, as long as there is no significant negative impact to natural resources or visitor services, or violation of Refuge regulations, a Special Use Permit will be issued outlining the framework in which this use can be conducted. Refuge staff will ensure compliance with the Permit.

**AVAILABILITY OF RESOURCES:**

Resources involved in the administration and management of the use includes personnel time associated with administration and law enforcement. Existing staffing and funding are adequate to support these activities.

No special equipment, facilities, or improvements are necessary to support the uses. Maintenance costs are not directly attributable to these incidental uses on the refuge.

Minimal costs are associated with these uses to monitor consequences of public having access to the refuge, such as degree of littering and vandalism. Plants and wildlife will be monitored to determine any impacts as a result of public use.

A special use permit is required, which obligates administrative time to complete. Additionally, costs may be assumed by the requestor as appropriate given the level of oversight needed. The Service requires the permittee to offset any cost incurred by the Refuge. This will be determined on a case-by-case basis. The offsetting cost should always be equal to the Refuge-incurred cost and would come to the Refuge in the form of fees paid by the permittee. These fees should at least equal our cost to administer the use, including any costs associated with facilities, equipment, supplies, and services.

**ANTICIPATED IMPACTS OF THE USE:**

Competitive racing on native surfaces can cause structural damage to plants and increase soil compaction. The degree of surface compaction is dependent on topography, soil structure, and soil moisture. Impacts of trampling on vegetation and soils are unlikely to occur on the well-defined, mulched trails, gravel roads, or paved surfaces. The Service repairs, operates, and patrols the trails and roads. Maintenance activities include mulching, pesticide spraying, road grading, and gravel replenishment, as needed. Well-maintained paved roads provide an appropriate surface for this type of user.

Competitive racing can cause wildlife disturbance. Immediate responses by wildlife to recreational activity can range from behavioral changes, physiological changes, or mortality (Knight and Cole 1995). The long-term effects are more difficult to assess. Wildlife responses to human disturbance include avoidance, habituation, and attraction (Knight and Cole 1991). A key factor in predicting how wildlife would respond to disturbance is the predictability of the activity within the habitat. The use of trails or boardwalks for wildlife viewing during predictable times will mitigate the impacts (Oberbillig 2001). Wildlife has a greater reaction to humans moving unpredictably (Gabrielsen and Smith 1995). Migratory wildlife tend to be more susceptible to human disturbance (Klein 1993). Wildlife may also be attracted to human presence if provided a reward. Habituation of wildlife to visitors may increase mortality of wildlife due to nuisance behavior, vehicle collisions, or illegal harvest. Visitors are encouraged to use developed trails, roads, boardwalks, and overlooks to limit disturbances and concentrate visitor activities to less sensitive areas.

Competitive racing may conflict with other refuge users, including commercial or non-commercial tours that will likely use the same areas as independent wildlife viewers, kayakers and canoeists, and hunters and anglers during open seasons. Unregulated or inadequately regulated competitive racing may adversely affect the safety of other refuge users, the quality of their experience, and the equity of opportunity. The refuge's visitor use programs will be adjusted as needed to eliminate or minimize each conflict and provide quality wildlife dependent recreational opportunities.

**DETERMINATION (CHECK ONE BELOW):**

- ☐ Use is not compatible
- ☒ Use is compatible, with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

Each request must comply with the following stipulations to ensure compatibility with the Refuge System and Clarks River NWR Complex goals and objectives to minimize or exclude adverse impacts as described above, the activity will be subject to the following stipulations.

1. Only competitive races that support public outreach, environmental education, interpretation, conservation, Refuge purposes, and the Refuge System mission, will be permitted. Requests that do not directly support these will be considered on a case by case basis to see if a secondary component can be considered to ensure compatibility and appropriateness.
2. Any permittee or other non-Service unescorted personnel acting under a Special Use Permit accessing the Clarks River National Wildlife Refuge must notify the appropriate Refuge personnel and give at least a 1 month advance notice prior to access for competitive racing. The permittee acknowledges and agrees that this Special Use Permit does not give the permittee or its designees' exclusive use or access to any site, facility, or wildlife.

3. (Permittee shall provide a detailed description of the competitive race, including site specific location, support equipment, number of persons involved, client name, description of the race, opportunities for public outreach, environmental education, interpretation, and other details that would allow for evaluation of the project. The special use permit application will detail who, what, where, when, why and how the operation will be conducted.
4. This use would be restricted to daylight hours only.
5. Permittee will not clear, trim, cut, or disturb vegetation nor erect any facilities or structures, whether temporary or permanent, without written approval of the Refuge Manager.
6. Permittee will not deface property by means of painting or marking of any sort. Only temporary signs can be authorized at the Refuge manager's discretion.
7. The use of aerial photography via drone to document or film the race must be specifically requested and approved through the Special Use Permit process prior to administering.
8. Firearms, weapons, alcohol, controlled substances or fires associated with the race, event, or festivities are prohibited.
9. Permittee is responsible for acquiring and/or renewing any necessary state and federal permits prior to beginning or continuing the race.
10. Staging of equipment will not be allowed on the Refuge. The permittee agrees to remove all equipment and completely clear and clean each location of any materials brought to the site upon leaving a site each day.
11. Disturbing, injuring, destroying or collecting or attempting to disturb, injure, destroy or collect any plant or animal is prohibited without specific written permission from the U.S. Fish and Wildlife Service.
12. The competitive race event will be conducted so as to minimize impact or interference with Refuge visitors, wildlife, or natural/cultural resources within the Refuge.
13. Permittee is required to adhere to all Refuge rules and regulations.
14. Training runs by high school and collegian sports teams would be allowed to occur along refuge paved and gravel roads under a Special Use Permit. No cross country (off-trail) exercises (jogging and running) would be allowed.
15. The U.S. Fish and Wildlife Service is not responsible for any mishaps or injuries that may occur during the competitive racing event and associated activities. The permittee acknowledges and agrees to provide appropriate safety equipment and training to all people participating in the competitive racing event and associated activities with regard to hazards likely to be encountered on Clarks River NWR managed lands and waters.
16. Indemnification: The permittee shall save, hold harmless, defend and indemnify the United States of America, its agents, and employees for losses, damages, or judgments and expenses on account of fire or other peril, bodily injury, death, or property damage, or claims for bodily injury, death, or property damage of any nature whatsoever, and by whomsoever made, arising out of the

activities of the permittee, its employees, subcontractors, or agents under this Special Use Permit.

a) The permittee shall purchase at a minimum the types and amounts of insurance coverage as stated herein and agrees to comply with any revised insurance limits that the Refuge Manager may require during the term of this Special Use Permit.

(b) Upon request of the Refuge Manager, the permittee shall provide a Statement of Insurance and Certificate of Insurance.

(c) The U.S. Fish and Wildlife Service will not be responsible for any omissions or inadequacies of insurance coverages and amounts if such prove to be inadequate or otherwise insufficient for any reason whatsoever.

**Public Liability.** The permittee shall provide comprehensive general liability insurance against claims occasioned by actions or omissions of the permittee or its designees in carrying out the activities and operations authorized hereunder. Such insurance shall be in the amount commensurate with the degree of risk and the scope and size of such activities authorized herein, but in any event, the limits of liability shall not be less than (\$300,000) per occurrence covering both bodily injury and property damage. If claims reduce available insurance below the required per occurrence limits, the permittee shall obtain additional insurance to restore the required limits. An umbrella or excess liability policy, in addition to a comprehensive general liability policy, may be used to achieve the required limits.

(a) All liability policies shall specify that the insurance company shall have no right of subrogation against the United States of America or shall provide that the United States of America is named an additional insured.

(b) The permittee agrees that the U.S. Fish and Wildlife Service does not take any responsibility or liability for the security, loss, damage, or otherwise of any vehicle, machinery, equipment, or other goods or property owned by, or under the control of, the permittee.

The refuge shall also collect any costs incurred by the refuge as a result of photography activities, including but not limited to administrative, security and personnel costs in accordance with policy.

A Federal Wildlife Officer will help to promote compliance with refuge regulations, monitor public use patterns and public safety, and document visitor interactions.

#### **JUSTIFICATION:**

Competitive racing is not a wildlife-dependent public use of the refuge as defined by statute (16 U.S.C. 668dd et seq.), but it can contribute to the fulfillment of refuge purposes by connecting people with nature. Under certain circumstances, competitive racing can support priority public uses of the National Wildlife Refuge System such as environmental education, interpretation, and wildlife observation by increasing public awareness, understanding, and support of the U.S. Fish and Wildlife Service, and the conservation of natural resources, in general. Further, competitive racing can promote ethical outdoor behavior, thereby helping to reduce and minimize adverse impacts to wildlife and habitats. Conditions imposed in required special use permits will help ensure that impacts associated with competitive racing activities are minimized or eliminated. Approved competitive racing would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health nor would they materially interfere with or detract from the purposes of Clarks River NWR, nor cause an undue administrative burden. Potential for wildlife disturbance is minimal given the non-threatening, indirect approach of this activity. Restricting the disturbance to designated established roads would increase the predictability of

public use on the refuge, allowing wildlife to habituate to nonthreatening activities. Moreover, consolidating compatible recreational activities to the Environmental Education and Recreation Area (EERA) reduces habitat fragmentation. These impacts would be monitored. This activity will not materially interfere with, or detract from, the mission of the Refuge System or purposes for which the refuge was established. In addition, this activity will fulfill one or more purposes of the refuge or Refuge System.

**MANDATORY 10-YEAR RE-EVALUATION DATE:** \_\_\_\_\_

**References:**

Gabrielson, G. W. and E.N. Smith 1995. Physiological responses of wildlife to disturbance. Pages 95-107 in R. L. Knight and K. J. Gutzwiller, ed. Wildlife and Recreationists; coexistence through management and research. Island Press, Washington, D. C. 372 pp.

Klein, M. L. 1993. Waterbird behavioral responses to human disturbances. Wildlife Society bulletin 21: 31-39.

Knight, R.L., Cole, D.N. 1991. *Effects of recreational activity on wildlife in wildlands*. Transcripts of the 56th North American Wildlife and Natural Resources Conference (238-246).

Knight, R.L., and D.N. Cole. 1995. Factors that influence wildlife responses to recreationists. Pages 71-79 in R. L. Knight and K.J. Gutzwiller (eds.) Wildlife and recreationists; coexistence through management and research. Island Press, Washington, D.C.

Oberbillig, D.R. 2001. Providing positive wildlife viewing experiences. Deborah Richie Communications, Missoula, MT.





### Approval of Compatibility Determinations

The signature of approval is for the compatibility determinations above for Clarks River NWR. If one of the descriptive uses is considered for compatibility outside of this package, this approval signature becomes part of that determination.

#### APPROVAL FOR COMPATIBILITY DETERMINATION:

Refuge Manager: Michael W. Johnson 7-5-17  
(Signature) (Date)

<sup>Act's</sup>  
Regional Compatibility  
Coordinator: Randy Mungione 7/5/17  
(Signature) (Date)

Area Supervisor: Jeff Pitelof 7/31/17  
(Signature) (Date)

Regional Chief, National  
Wildlife Refuge System  
Southeast Region: [Signature] 7/31-17  
(Signature) (Date)

