## FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Clarks River NWR			
Use: Operation of Unmanned Aerial Systems		HEIMO	
This form is not required for wildlife-dependent recreational uses, take regulated by the State, o described in a refuge CCP or step-down management plan approved after October 9, 1997.	ruses al	ready	
Decision Criteria:	YES	NO	
(a) Do we have jurisdiction over the use?	1	dia pero	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	1		
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	1	n san arriv assass	
(d) is the use consistent with public safety?	1	tig	
(e) is the use consistent with goals and objectives in an approved management plan or other document?	1		
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	1		
(g) is the use manageable within available budget and staff?	1		
(h) Will this be manageable in the future within existing resources?	1		
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	1		
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	1		
Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it furth control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), found appropriate. If the answer is "no" to any of the other questions above, we will generally not indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes When the refuge manager finds the use appropriate based on sound professional judgment, the must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrent Based on an overall assessment of these factors, my summary conclusion is that the proposed	or (d)) mot allow the No _ arefuge ince.	nay not be the use.	
Not Appropriate Appropriate_	1		
Refuge Manager: Kinky of Syla Acty Date: 5/	1//	7	
If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the	use is a	new use	
If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor mu	st sign c	oncurrence.	
If found to be Appropriate, the refuge supervisor must sign concurrence.  Refuge Supervisor: Date: 65	20/1-	)	
A compatibility determination is required before the use may be allowed.	FWS Form 3-2319 02/06		

## JUSTIFICATION FOR A FINDING OF APPROPRIATENSS OF A REFUGE USE

Refuge Name:

Clarks River NWR

Use:

Operation of Unmanned Aerial Systems (Commercial and Private Use)

## NARRATIVE:

The National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57) identifies six legitimate and appropriate uses of wildlife refuges; environmental education, interpretation, hunting, fishing, wildlife observation, and wildlife photography. These priority public uses are dependent upon healthy wildlife populations. Where these uses are determined to be compatible, they are to receive enhanced consideration over other uses in planning and management. All other recreational uses are now considered general uses. As noted in the Appropriate Use Policy: "General public uses that are not wildlife-dependent recreational uses (as defined in the Improvement Act) and do not contribute to the fulfillment of refuge purposes, or goals, or objectives as described in current refuge management plans are the lowest priorities for refuge managers to consider. These uses are likely to divert refuge management resources from priority general public uses or away from the responsibilities to protect and manage fish, wildlife, and plants and their habitats. Therefore, both law and policy have a general presumption against allowing such uses within the Refuge System."

Specific policies have been reviewed and determined to apply for the use of unmanned aerial systems or drones on Refuges. Specifically, 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 Refuge System regulations at 50 C.F.R. Chapter I, Subchapter C, which covers the National Wildlife Refuge System, and where 50 C.F.R. § 27.34 is found. However, the term is defined in Subchapter B, which covers wildlife and plants. In Subchapter B, "aircraft" is defined as "any contrivance used for flight in the air."6 This definition is consistent with one dictionary's 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."7 Thus, the common meaning of the term aircraft is broad enough to include manned and unmanned aircraft.

<sup>&</sup>lt;sup>1</sup> 16 U.S.C. § 668dd.

<sup>&</sup>lt;sup>2</sup> 16 U.S.C. § 460k.

<sup>&</sup>lt;sup>3</sup> Id. (emphasis added).

<sup>&</sup>lt;sup>4</sup> 50 C.F.R. §26.41.

<sup>&</sup>lt;sup>5</sup> 50 C.F.R. § 25.11(b).

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/wildlife-disturbance) that lists50 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. . . . " existing research dealing with wildlife disturbance and drones that was considered in this determination.

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: 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."

<sup>6 50</sup> C.F.R. § 10.12.

<sup>7</sup> Random House Dictionary 2014, available at: http://dictionary.reference.com/browse/aircraft.

<sup>8 50</sup> C.F.R. §26.41.

<sup>9 43</sup> C.F.R. § 5.8.

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.

Photography and/or commercial filming has specific policies associated with the use of unmanned aerial systems. 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 special use permit for such commercial activities must pay a fee and agree to reimburse the government for any costs it incurs.9 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 on 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.

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.

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.