

**FINDING OF APPROPRIATENESS OF A REFUGE USE**

Refuge Name: Edwin B. Forsythe National Wildlife Refuge

Use: Manned and Unmanned Aircraft Use for Recreational or Commercial Purposes

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, Tribal, and local)?		X
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		X
(d) Is the use consistent with public safety?		X
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		X
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?		X
(g) Is the use manageable within available budget and staff?		X
(h) Will this be manageable in the future within existing resources?		X
(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?		X
(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?		X

Where we do not have jurisdiction over the use ["no" to (a)], there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ["no" to (b), (c), or (d)] may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes \_\_\_ No X.

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate X      Appropriate \_\_\_

Refuge Manager: Virginia Kelly      Date: 11-2-2017

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 must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence:

Refuge Supervisor: Grada Taylor      Date: 11/6/2017

**A compatibility determination is required before the use may be allowed.**

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

Refuge Name: Edwin B. Forsythe National Wildlife Refuge

Use: Manned and Unmanned Aircraft Use for Recreational or Commercial Purposes

### Narrative:

Refuge staff at the Edwin B. Forsythe National Wildlife Refuge (Forsythe Refuge, the refuge), have evaluated all existing or requested non-priority public uses to determine if they are an appropriate use of the refuge. The use of manned and unmanned aircraft for recreational or commercial purposes on the refuge is not a priority public use of the National Wildlife Refuge System (Refuge System), as defined 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). Manned and unmanned aircraft includes, but is not limited to, airplanes, ultralights, hang-gliders, paragliders, parachutes, helicopters, hot air balloons, and other manned aircraft systems, as well as model aircraft/airplanes, powered gliders, drones, motorized aerial vehicles, remotely piloted vehicle (RPV), multicopters (quad-, hexa- and octocopter), and other unmanned aircraft systems.

Based on our evaluation, we have found the landing and launching of manned and unmanned aircraft for recreational or commercial purposes is not appropriate at Forsythe Refuge for several reasons:

- The landing and launching of aircraft is not consistent with Federal regulations. According to 50 CFR §27.34, “The 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. National wildlife refuge boundaries are designated on up-to-date FAA [Federal Aviation Administration] aeronautical charts.”
- There is clear regulatory guidance that prohibits aircraft use to disturb, or attempt to disturb, wildlife (50 CFR § 27.51).
- The Airborne Hunting Act (16 USC 742j1) provides regulatory authority to prohibit the use of aircraft to aid the hunting of wildlife and their pursuit and/or harassment.
- Aircraft operated without direct human intervention, such as unmanned aircraft systems, drones, model airplanes, etc. also fall under these regulations as they are considered aircraft regardless of size or weight. 50 CFR § 10.12 defines “aircraft” as “any contrivance used for flight in the air.” In 14 CFR 1.1, aircraft means a device that is used or intended to be used for flight in the air. The U.S. Fish and Wildlife Service (Service) interprets the definition of “aircraft” in 50 C.F.R. § 10.12 to include any device that is used for flight in the air without the possibility of direct human intervention from within or on the device. All associated operational elements, including cameras, sensors, communication links, and all of the components that are required for the system operator to control the device are considered part of the device. The term “aircraft” includes all types of unmanned devices that meet this definition, including, but not limited to, model aircraft/airplanes, powered gliders, drones, motorized aerial vehicles, remotely piloted vehicles (RPV), multicopters (quad-, hexa- and octocopter), and other unmanned aircraft systems.
- The refuge goals, as defined in the Forsythe Refuge Comprehensive Conservation Plan (USFWS 2004), are focused on protecting the refuge’s natural resources and offering priority, wildlife-dependent recreation. The refuge’s purposes are:
  - \* To be used as an inviolate sanctuary, or for any other management purposes, for migratory birds (16 U.S.C. 715d)
  - \* To be used for the development, advancement, conservation, and protection of fish and wildlife resources (16 U.S.C. 742f)
  - \* To be used for the conservation of the Nation’s wetlands to maintain the public benefit they provide to help fulfill international obligations [regarding migratory birds] (16 U.S.C. 3901b)

- \* To secure for the American people of present and future generations the benefits of an enduring resource of wilderness (78 Stat. 890:16 U.S.C. 1121)
- The proposed use would conflict with Service policy 605 FW1 1.6 (C) and (D) and the Forsythe Refuge goals and purposes for the following reasons:
  - \* Aircraft have the potential to disturb migratory birds and other native wildlife (McEvoy et al. 2016; Lambertucci et al. 2015; Dolbeer 2006; Knight and Cole 1995; Belanger and Bedard 1995; Mancini et al. 1988; Smith et al. 1988; and Owens 1977). This research shows that response to aircraft is influenced by many variables including aircraft size, proximity or visibility, altitude, flight profile, and aircraft noise. In particular, these activities could disturb birds and other species that rely on grasslands because these activities are most likely to occur in grassland habitats. Wildlife may be disturbed by noise from these aircraft, particularly from low-flying crafts and those that are landing or launching (Lambertucci et al. 2015; Owens 1977). This may cause birds and other wildlife to flush or disturb nesting birds and their nests. The launching and landing of these crafts can damage vegetation and directly impact wildlife by crushing nests or individuals. Additionally, aircraft users may need to leave roads and trails and/or enter fields to launch/retrieve their aircraft. This type of off-trail use may cause birds and other wildlife to flush, or may disturb nesting birds and their nest sites. While some wildlife can habituate to users on trails, wildlife may react most strongly to disturbance from users off trails (Taylor and Knight 2003).
  - \* The activities do not support and are not necessary to participate in any of the Refuge System's priority public uses. These activities do not contribute to visitors' appreciation or understanding of the refuge's resources.
  - \* The activities may conflict with existing wildlife-dependent recreational uses by disturbing other visitors engaged in priority public uses. Landing and launching aircraft for recreational or commercial purposes on refuge lands open to the public may degrade the experience of those participating in one or more priority public uses. Refuges are mandated to evaluate the quality of public uses permitted on refuge lands (605 FW1). For example, these aircraft may flush birds that photographers or hikers are observing, and loud noise from engines may detract from other visitors' enjoyment of the refuge. In this case, it would be in conflict of Service policy 605 FW1 1.6 (C) which directs the Service to minimize conflicts with fish and wildlife (which by extension affects the quality of a visitor's experience), and in part, (D) to minimize conflict with other users.
  - \* The activities may not be consistent with public safety because refuge visitors would not expect aircraft to attempt to land on the refuge and we cannot guarantee pilots a safe place to land.
- Finally, given the potential volume of activities, expanse of lands over where the activities might occur, unpredictable location of activities, and current budget and staffing levels, managing the use with existing resources is not feasible. Refuge staff would be required to ensure that all aircraft are not launched or retrieved on refuge lands and that their use is not causing disturbance, harassing wildlife, or conflicting with other users. The difficulty in managing the activities to ensure that wildlife and compatible priority public uses are not negatively impacted would be significant. The activities are unpredictable in location across thousands of acres of the refuge, and are therefore difficult to evaluate the consequences of the activities or to utilize existing personnel to manage the use to ensure compatibility.

The public will be notified of the regulations surrounding this use via the refuge website, signage posted throughout the refuge in known areas of repeated illegal activity and periodically on the refuge Facebook page.

### **References:**

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